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ABSTRACT

One hundred and eighty Japanese 16mm motion pictures, 8mm cartridges, and video tapes produced and judged appropriate for a variety of audience levels are listed in alphabetical order by title with descriptive and evaluative information. A subject heading list and a subject index to the film titles are included, as well as a sample of the evaluation form used, a list of the evaluation specialists, and a list of the evaluation sites. Among the 19 subject areas listed are: archeology, microbiology, oceanography, astronomy, and ornithology. Evaluation was based on content, audience suitability, structure, picture, sound, and photo technique. The film were identified as part of the U.S.-Japan Science Film Exchange Project. (Author/DS)

JAPANESE SCIENCE FILMS

A Descriptive and Evaluative Catalog of:

16mm Motion Pictures,
8mm Cartridges, and
Video Tapes

Editor

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The contents of this catalog are derived from the "U.S.-Japan Science Film Exchange Project," sponsored by the National Science Foundation and administered by the American Science Film Association.

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Contents

Foreword

U.S. - JAPAN SCIENCE FILM EXCHANGE PROJECT: A COOPERATIVE RESEARCH VENTURE

Purpose

The objective of this Film Exchange Project was to determine what benefits could be derived for science education, at various academic levels, from the exchange of science films between the United States and Japan.

Background

The United States-Japan Cooperative Science Program was generated out of discussions between President John F. Kennedy and Prime Minister Hayato Ikeda in 1961. Recognizing the importance of expanding educational, cultural, and scientific cooperation, these national leaders formed committees to search for means of establishing and strengthening international cooperation between their two countries. The Cooperative Science Program is one of the means developed and it is based upon shared support, and emphasizes activities of common scientific interest.

The U.S.-Japan Science Film Exchange Project was developed in 1967 out of this United States-Japan Cooperative Science Program under the category of "Education in the Sciences." In the United States, the implementing agency was the National Science Foundation (NSF) and the Project was administered by the American Science Film Association (ASFA). The initial Principal Investigator for ASFA was Dr. Edward W. Bird, Bureau of Medicine and Surgery, Department of the Navy. He was succeeded in 1968 by Dr. Malcolm S. Ferguson, Media Resources Supervisor at the National Library of Medicine and Executive Vice-President of ASFA. The Assistant Investigator for ASFA, in charge of the evaluative phase of the Project, was Edward F. Newren, Assistant Professor, School of Library Science and Education, University of Michigan. In Tokyo, the Japan Society for the Promotion of Science was the sponsor and the Project was administered by the National Science Museum. The Administrator of the Project for Japan was Mr. Kyoshi Sugie, Director, National Science Museum, and assisting was Mr. Soichiro Tsuruta, Chief, Department of Programs at the Museum.

Four international conferences of the Project, two in each of the participating countries, were held in 1967, 1968, 1969 and 1970 to specify responsibilities, develop procedures, review progress and results, and set operational goals. At these conferences, it was agreed that the participating countries would, during each year of the Project, select, obtain, and ship to each other between 1,000 and 1,500 minutes of film. Although 16 millimeter was to be the predominant format, it was also agreed that some 8 millimeter cartridge films and ½" Sony video tapes should also be exchanged. Initially, the maturity level of the materials was to be at the secondary school level. The word "science" used to describe the content of the films exchanged was defined and interpreted broadly to include physical, biological, health, and applied technical science areas. At the outset of the Project, it was decided, however, that "social science" films would be excluded.

Over the ensuing years of the Project's existence, the maturity level was expanded to include some items at the elementary as well as the college and adult levels. The content areas of films selected for sending to Japan were enlarged to include items dealing with scientific methods applied to engineering, as well as films on the American Indian. The United States requested films in the additional areas of medicine, anthropology, archeology and social sciences. The breakdown of exchanged films was to be proportioned at about 20 percent cultural science films for general public audiences and 80 percent science films for classroom instruction.

During the three years this cooperative Project was in existence, the following number of media units were exchanged:

U.S.-Japan Science Film Exchange Project:
Units of Media Exchanged 1967 - 1970

Country	Media Format			Total Units Exchanged*	Total Running Time in Minutes
	16mm	8mm	Videotape		
United States	193	63	9	265	4,048
Japan	133	36	11	180	3,664

*What appears to be a larger exchange contribution by the U.S. is due to the fact that United States science films tend, generally, to be shorter in length than the Japanese motion pictures, and because ASFA forwarded a larger number of 8mm cartridge films.

Commentary on the Selection of Exchanged Science Films

Each of the participating countries organized committees to review and select the films which were to be sent to the other country. The Japanese selected many of their films from the prize-winners at film festivals, as well as by utilizing the expertise of the selection committee members they had assembled. The United States used review committees, comprised of science specialists who met at the ASFA office, evaluative reports from the preview and screening programs of some university film libraries, as well as winning titles for Golden Eagle Awards by the Council on International Nontheatrical Events (CINE). Selections from both countries were based on a variety of factors--quality of presentation, technical quality, subject matter, maturity level of the media's intended viewing audience, and other "understandings" arrived at during the various Project conferences.

Evaluation Procedure

To determine the quality and usefulness of the Japanese science films for education in the United States, a two-phase evaluation program was initiated.[1] In Phase I, the films were evaluated across the country, mainly by professionals at the higher education level--content specialists, audience level specialists, and audiovisual production specialists. The arrangements for these evaluations were made by persons, called coordinators, who had experience in audiovisual education, as well as science and science teaching. Phase II was designed to place these films in the hands of those in-the-field who could provide meaningful evaluation and reactions as to the strengths and weaknesses of the films for science education--science teachers and their students. This phase was limited only by the ability of ASFA to disseminate the films to potentially, as well as self-designated, interested science specialists. Primarily, this phase was designed to retrieve evaluative information from teachers and students who used these educational materials in an instructional setting.

To standardize the evaluations in Phase I and Phase II an evaluation form was developed.[2] The first part of this form was used by the Phase I evaluation specialists and the Phase II science teacher. In addition, another set of questions--in the second part--was used by the Phase II science teacher and his students.

EFN

Availability

Plans are being made to house the collection of Japanese science films at an academic institution where they will be available for use. Persons interested in purchasing any of the films in this catalog should contact the Japanese producers directly.

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[1] A full explanation of this procedure and the initial findings may be obtained from the Educational Research Information Clearinghouse (ERIC) Report No. ED 049319, "The U.S.-Japan Science Film Exchange Project: An Interim Report" by Edward F. Newren, Research in Education. July, 1971, Vol. 6, No. 7.

[2] See Appendix One for a sample of the evaluation form.

Introduction to Organization of Catalog

Film Information

On pages 12 to 97 the titles, with descriptions and evaluative information, of films are given in one alphabetical listing. In the Subject Index, pages 6 to 11, the films are classified under broad but generally accepted headings, such as Agriculture, Life Sciences-Physiology, Physical Sciences-Astronomy. The descriptions of content are written in a concise and objective style which permits the reader to easily and quickly determine the nature and content of a film.

"Subject Area" and "Unit of Study" recommendations, as well as "Treatment" and "Audience Level" identification, are to be found in each film entry and should be helpful in suggesting uses for the film. The "Audience Level" identification suggests the range of probable use with the most appropriate level underlined when this was supplied by evaluation specialists.

The "Evaluation Section" provides the evaluative ratings of "Individual Production Elements," such as content, audience suitability, structure, picture, sound, and photo technique, as well as an "overall Rating" of the film as derived from the evaluations by the specialists in Phase I of the evaluation process. This section also includes teacher ratings on the "Usefulness of the film as a teaching material" and its "Appropriateness as a substitute for experiments or demonstrations," as well as the grade levels at which the film was used with students in the Phase II, in-the-field segment of the evaluation process.

Additionally, each of the evaluation specialists and evaluation team coordinators in the Phase I segment and each of the in-the-field evaluation sites in the Phase II segment of the evaluation process are identified with initials in the evaluation section of each film entry. The complete names of the evaluators, coordinators and evaluation sites are provided in Appendixes Two, Three and Four.

Alphabetization

The alphabetical arrangement of the catalog uses the typical library scheme for alphabetical organization. Short words, regardless of the first letter in the following word, are placed before longer words, for example, "Fish Habitats" is listed before "Fishing Net of the World." Such a system is called "word-by-word" alphabetizing as contrasted with letter-by-letter alphabetizing. The articles "A," "An," and "The" are disregarded when they come first in the title but are considered when their location is within the title. Films in a series are listed alphabetically as individual titles rather than according to their sequence in the series under a series title. All titles are given in their English equivalents as translated from the original Japanese title found on the film.

Film Credits

Below each film title and format information, is given, when available, the name and address of the Japanese film producer. Also, when available, the producer's name is followed by the date of production.

Subject Heading List

AGRICULTURE

ARCHEOLOGY

ENGINEERING/TECHNOLOGY

HEALTH SCIENCES

LIFE SCIENCES

- GENERAL
- BOTANY
- ECOLOGY
- ENTOMOLOGY
- MICROBIOLOGY
- OCEANOGRAPHY/MARINE BIOLOGY
- ORNITHOLOGY
- PHYSIOLOGY
- ZOOLOGY

PHYSICAL SCIENCES

- ASTRONOMY
- CHEMISTRY/BIO-CHEMISTRY
- EARTH SCIENCES/GEOLOGY
- MATHEMATICS
- METEOROLOGY/CLIMATOLOGY
- PHYSICS

Subject Index

HEALTH SCIENCES

LIFE SCIENCES

GENERAL

BOTANY

ECOLOGY

ECOLOGY (continued)

ENTOMOLOGY

MICROBIOLOGY

OCEANOGRAPHY/MARINE BIOLOGY

ORNITHOLOGY

PHYSIOLOGY

ZOOLOGY

PHYSICAL SCIENCES

ASTRONOMY

CHEMISTRY/BIO-CHEMISTRY

EARTH SCIENCES/GEOLOGY

MATHEMATICS

METEOROLOGY/CLIMATOLOGY

PHYSICS

PHYSICS (continued)

ACCELERATED MOTION

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan — Date: Not available

Subject Area: Physics — Unit of Study: Motion (acceleration)

Content: Presents the basic theories of accelerated motion with emphasis on distance and velocity and their relationship to acceleration. Utilizes a race between a car and a man with an electronically formed acceleration curve superimposed over the picture to provide visual clarification of the basic problems presented. Uses still pictures, graphs, grids and demonstrations to clarify and reinforce concepts of acceleration.

Treatment: Illustrated lecture — Audience Level: SH

Phase I - Specialist Evaluation:

Evaluation Team: WHE, EFN, CB — Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	2
Audience Suitability	2	Sound	na
Structure	2	Photo Technique	3

Overall Rating: Fair

Comments: Deals with introductory material but presents information which requires basic understandings in this area. English dub is too literal and sound sync is not good. Verbal pauses make this a very amaturish production. Overall presentation is distracting. Attempts to cover too much material and would not fit the problem-solving approach currently being used in the U.S.

ADHESION

16mm, 27 minutes, color, Japanese narration, accompanying English printed script.

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-Ku, Tokyo, Japan — Date: 1967

Subject Area: Physics — Unit of Study: Adhesion

Content: Demonstrates impact of adhesives on society. Shows various ways of attaching materials to each other and the superiority of an adhesive. Explains the role of science and industry in producing superior adhesives.

Treatment: Factual lecture utilizing animation and models. Uses close-ups and photomicrography. — Audience Level: JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: JCB, LW, DB — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	3	Picture	5
Audience Suitability	5	Sound	ns
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Would be excellent if narrated in English. Not technical. Like an advertisement that says, "Don't use the old glues, but try the new glues." Good continuity, photography and color. Japanese sound track seriously limits usefulness.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM, SI — Grade Level: 8, 12

Teacher Ratings:

Overall Estimate of Films Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

ANCIENT JAPANESE TOMBS

16mm, 30 minutes, color, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan Date: 1968

Subject Area: Archeology Unit of Study: Japan, Far East

Content: Depicts the ancient tombs, or Kofuns, and other burial mounds found in various parts of Japan. Shows funeral objects such as jewelry, clay images, folk art products, pottery, and weapons buried with the dead in these tombs. Demonstrates that death was celebrated with a zest found among people who love life.

Treatment: Illustrated lecture Audience Level: SH, College-Undergrad., Grad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LGH, MSF Team Coordinator: MSF

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Excellent cinematic overview of a static subject; a creative presentation with good camera work. Film could be improved for U.S. audiences by editing to a shorter length, e.g., 15-20 minutes.

APPLICATION OF OIL PRESSURE

16mm, 22 minutes, color, Japanese narration, accompanying English printed script

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan Date: 1963

Subject Area: Hydraulics Unit of Study: Basic Theory of Hydraulics

Content: Introduces the many uses of hydraulic oil pressure to help man do his work. Demonstrates the hydraulic principle with models.

Treatment: Factual analysis using models Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: HP, PCM, DB Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Average

Comments: Some good sections, but lacks depth for post-high school vocational training. Too many scenes of the merry-go-round rising and lowering; could be reduced. Scene of train stopping should have shown some of the stopping mechanism. Scene with machine lathe following pattern is hard to figure out; animation might have been helpful here, as with the pump scene. In the pump scene, the large and small persons being equalized did not show the advantage of the hydraulic pump. The element of time should also be introduced. The boat shown is not a hovercraft, but a hydrafoil. The English script did not seem to follow the film - there were written explanations not found in the film, and there were scenes not explained in the script.

Phase II - In-the-Field Evaluation:

Evaluation Site: SI Grade Level: 12

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	2

AN APPROACH TO PREDICTION OF EARTHQUAKES

16mm, 30 minutes, color, English narration

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan

Date: 1967

Subject Area: Geology and Geophysics

Unit of Study: Earthquakes and Geophysics

Content: Presents the methods and equipment used by scientists to predict earthquakes. Explains how micro-earthquakes may be used to foretell great earthquakes. Follows the study and prediction of a major earthquake at Matsushiro, Japan, with its resultant destruction.

Treatment: Illustrated lecture utilizing close-ups, animation and models.

Audience Level: Int, JH, SH, College-Undergrad., Grad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: ARM, HRB, WT

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	4
Audience Suitability	4	Sound	4
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: Accurate but oversimplified. Should provide much interest and benefit to both undergraduates and general audiences. Somewhat deficient in introductory explanation of basic principles. No description of certain important features of earthquakes, such as types of wave motion. There might be objection to the rate of movement of the panorama shots and vibrations of camera.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM

Grade Level: 7,8

Teacher Ratings:

Overall Estimate of Film's Value	-
Usefulness as a Teaching Material	2
Appropriateness as Substitute for Experiments or Demonstrations	3

AUTOMATION

16mm, 27 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1961

Subject Area: Machines, automation

Unit of Study: Machines with feedback systems, automatic control.

Content: Shows through demonstration and time-lapse photography, the mechanical-electrical feedback systems used to control machines. Presents examples of simple devices, such as heaters with thermostats. Demonstrates complex feedback systems in oil refinery and steel mill operations which are controlled by computers.

Treatment: Illustrated lecture utilizing diagrams, demonstrations, close-ups, and time-lapse photography

Audience Level: Int, JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: ABB, FS, EHS

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	2
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	2

Overall Rating: Poor

Comments: Machines (electric heaters) appeared old, and conditions of use in homes do not typify U.S. uses. Moved slowly. Demonstration sequences adequate. Film might be more beneficial for U.S. use if broken into smaller instructional units, i.e., thermostat control, bi-metal switch, etc.

BABIES' BLOOD TYPES

16mm, 30 minutes, color, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1967

Subject Area: Biology, Health — Unit of Study: Hematology - blood grouping; Circulation System

Content: Describes the treatment of changing the blood of babies with jaundice. Informs about the case of one family who lost five infants until blood mismatch was discovered in the parents and shows the hospital treatment to cure the sixth infant's blood problem. Explains the mechanics of blood typing and the meaning of blood types when adults of different types give birth to infants.

Treatment: Case study approach utilizing animation, close-up and photomicrography techniques. — Audience Level: SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: MFW, BH, HML — Team Coordinator: DG

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....ns
Structure.....3	Photo Technique.....3

Overall Rating: Average

Comments: The case history approach may restrict the usefulness. Since only one type of blood mismatch is discussed in the film, this may be misleading for those unacquainted with blood types.

Phase II - In-the-Field Evaluation:

Evaluation Site: PA, PHI — Grade Level: 10, 12

Teacher Ratings:

Overall Estimate of Film's Value.....2
Usefulness as a Teaching Material.....2
Appropriateness as Substitute for Experiments or Demonstrations.....1

A BEAUTIFUL COUNTRY

16mm, 47 minutes, color, English narration

Producer: Tokyo Cinema Co., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan — Date: 1964

Subject Area: Geology — Unit of Study: Land Formation, Mountain Building, Orogeny

Content: Provides a comprehensive look at numerous mountains in Japan and an examination of mountain-forming activities. Establishes the volcanic origins of the many islands and mountains through an overview of typical island and mountainous regions. Traces the geologic development of the area through drawings which illustrate the alternating uplift and subsidences of the land in Japan and supplements these with scenes of regions which are shown as the land appeared when partially submerged while undergoing magmatic eruptions.

Treatment: Illustrated lecture — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: NB, DRG, WC — Team Coordinator: APM

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....3	Sound.....3
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: Excellent photography, however excessive length of film becomes boring. It has an intercultural approach so the topic would be of interest to any geology student. Several close-ups of magmatic eruptions and volcanic activity are of general interest. The unusual size of one caldera is especially shocking sinceone generally considers volcanic mouths to be rather small...not large enough for villages to be built in them. Interest may be limited to those with interest in Japanese geology. From either a geology student's view or a potential visitor to Japan, the film provides interest and information. It could be used, if shortened, as a case study for geology students.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM, SPM — Grade Level: 8,9,11

Teacher Ratings:

Overall Estimate of Film's Value.....3
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....3

BIOLOGICAL SKETCH OF THE SEA

16mm, 40 minutes, color, Japanese narration, accompanying Japanese printed script

Producer: Seibutsu Eiga Kenkyujo, Marunouchi 3-3-1, Shin-Tokyo Bldg., Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Biology

Unit of Study: Marine Biology, Ecology

Content: Portrays rocky coasts, small bays, islands, and tidal pools. Shows clusters of barnacles, marine clams, worms, slugs, snails, sea anenomes, jelly fish and various types of coral. Depicts in closeup the small, separate animals in coral formations and their feeding activities. Features, in the latter part of the film, the multiplication, feeding and growth of individual and colonial coelenterates.

Treatment: Illustrated lecture, employing underwater close-up photography and photomacrography

Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PW, WK, JN

Team Coordinator: WSt

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Good

Comments: Excellent photography of marine animals of various sizes, including coral, jelly fishes, barnacles, crustacea and marine annelids. A beautiful art film. Lack of script in English seriously limits usefulness of film for U. S. students. Film could be shortened by careful editing.

BIRDS IN WINTER - I

8mm, regular, Technicolor cartridge, 3 minutes, color, silent, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Natural History, birds

Content: Demonstrates the difference between summer and winter birds. Explains the large scale movements and the small scale wandering movements of birds. Shows specific examples of Swan, Teal, Dusky Mallard, Mandarin Duck, Dusky Ouzel, Redstart, Bulbul, and Japanese Nightingale.

Treatment: Documentary

Audience Level: Mid., Int., JH

Phase I - Specialist Evaluation:

Evaluation Team: HW, PT, RW, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	3

Overall Rating: Fair

Comments: Too short and brief. Covers too much area, considering time and length of film.

BIRDS IN WINTER - II

8mm, regular, Technicolor cartridge, 3 minutes, color, silent, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Natural History, birds

Content: Shows examples and movements of birds which do not migrate. Presents specific examples such as Blue Magpie, Gray Starling, Sparrow, Parris Major, Temmick Schlegel, Red Woodpecker, and White Crane.

Treatment: Documentary

Audience Level: Mid., Int., JH

Phase I - Specialist Evaluation:

Evaluation Team: HW, PT, RW, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....3

Overall Rating: Fair

Comments: Too short and brief. Covers too much area, considering time and length of film.

THE BLOOD STREAM

8mm, regular, Technicolor cartridge, 3 minutes, color, silent, accompanying English printed script

Producer: Gakkyu Films, 246 Kami-Ikenoue, Ota-ku, Tokyo, Japan

Date: Not available

Subject Area: Biology

Unit of Study: Physiology

Content: Depicts through close-up live photography the blood flow through capillaries in ear of a rabbit, tail of a killifish, and foot membranes of a frog.

Treatment: Cartoon-style

Audience Level: Int. JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: LGH, MSF

Team Coordinator: MSF

Rating of Individual Production Elements:

Content.....3	Picture.....2
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....2

Overall Rating: Fair

Comments: Higher magnification should have been used in photographing capillary circulation since individual blood cells could not be seen. Scenes were generally too short and some were somewhat fuzzy.

BLUE LAKE

16mm, 35 minutes, color, English narration

Producer: The Nippon Eige Shinsha, Ltd. Kami-Osaki 2-10-17, Shinagawa-ku, Tokyo, Japan

Date: 1963

Subject Area: Engineering/Technology

Unit of Study: Hydroelectricity

Content: Shows the construction of two power station dams. Depicts how these dams are used to harness a river and provide electrical power. Informs about how and why the dams were built and the results of the project.

Treatment: Documentary utilizing animation and illustrated lecture techniques

Audience Level: Int., JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: PL, LG, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	5
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: An interesting, entertaining, informative, but non-technical film.

BLUEPRINTS IN MODERN INDUSTRY

16mm, 26 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1961

Subject Area: Industrial Design

Unit of Study: Production Design, Automotive

Content: Develops the importance of blueprints, drawings, and plans in making or constructing something. Follows the development from plan to finished product in constructing an automobile. Covers briefly concepts of "front view", "lateral view", "ground-plane", and patents.

Treatment: Documentary, illustrated lecture utilizing on-location demonstrations, models, and close-up photography

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: DP, JFG, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	3	Sound	ns
Structure	3	Photo Technique	3

Overall Rating: Fair

Comments: The colored background is poor -- it needs more contrast. Difficult to follow film, due to sequence and speed, which is necessary to glean respective information from script. Initially, a good commentary on non-verbal communication, interface studies relating similarities in the design of many man-made objects. Film gets bogged down in legalistic aspects of industry which detracts from the original focus. Unsuitable sound track: instead of classical music, needs on-location sounds of engines running and machines clanking, to give better sense of what is involved.

THE CABBAGE BUTTERFLY

16mm, 27 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Biology

Unit of Study: Entomology

Content: Provides a photographic analysis of behavior of the cabbage butterfly. Employs special research camera techniques such as slow-motion and time-lapse recordings, and ultra-violet illumination.

Treatment: Illustrated lecture using time-lapse, high-speed and close-up photography

Audience Level: JH, SH, College-Undergrad., Grad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW, CWR

Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....2	Photo Technique.....3

Overall Rating: Average

Comments: A good presentation demonstrating methods of research on insect behavior. It will be of interest to specialized audiences. Some sequences are too long and the film could be improved through editing. Title is misleading: the presentation could be two films, one on research on feeding, and one on mating behavior. Special attention is paid to the butterfly's reaction to color.

CHALLENGE OF REFUSE

16mm, 29 minutes, color, Japanese narration, accompanying English printed script

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku Tokyo, Japan

Date: 1968

Subject Area: Ecology, Public Health

Unit of Study: Conservation, Pollution Control, Waste Disposal

Content: Illustrates the volume and scope of waste disposal in Japan. Shows how waste materials are being used to reclaim land along the coast, how incinerators are utilized for providing energy to heat water, and a process of burning waste to cause minimal air pollution. Depicts products that can be reclaimed from waste collection and ways of compressing large objects which have been discarded.

Treatment: Live action and animation

Audience Level: Int., JH, Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: TW, GB, HML

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: Good film not only for content, but for revealing cultural aspects of a foreign country not often seen in travel or other documentary films of this sort. The fact that specific Japanese problems are explored makes the film a unique source that may limit its usefulness in the U.S.

Phase II - In-the-Field Evaluation:

Evaluation Site: WM

Grade Level: 5

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	2

CHANGES IN PLANT COMMUNITIES

16mm, 22 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1968

Subject Area: Biology, Ecology — Unit of Study: Plant Succession

Content: Shows how plants interact with their surroundings. Depicts how a grassy plain changes into a forest.

Treatment: Factual analysis — Audience Level: SH, College-Undergrad., Grad., Adult-Special or Prof., Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: JCRo, RHi, JG — Team Coordinator: JCRo

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	3

Overall Rating: Average

Comments: The same concepts are covered in U. S. films of equal quality.

Phase II - In-the-Field Evaluation:

Evaluation Site: FCV — Grade Level: 9, 10

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

CHANGING COASTLINES

16mm, 32 minutes, color, English narration

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan — Date: 1964

Subject Area: Geology, Geography, Land Usage — Unit of Study: Land Expansion, Land Conservation

Content: Shows engineering projects designed to protect and develop Japan's coastlines. Discusses how model harbors and wave-producing machinery were utilized to study the forces which erode coastal land. Describes and discusses the actual construction of tetrapod breakwaters and jetties to permit dredging harbors on sandy beaches, and reclaiming land for delta farming and industrial parks.

Treatment: Analysis of projects presented in close-ups and underwater photography — Audience Level: Int., JH, SH, College-Undergrad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: APM, DRG, WRV — Team Coordinator: PWB

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	3
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Photographic techniques and color are good, as well as method of presentation, but English sound track lacked quality. The example of the jetty under construction was excellent. Actual construction techniques used to reclaim land are well illustrated. This film seems to cover too much in the length of time available.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM, SI, MM — Grade Level: 5, 8, 9, 10, 11, 12

Teacher Ratings:

Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

CHEMICAL EQUILIBRIUM

16mm, 22 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1964

Subject Area: Chemistry — Unit of Study: Chemical Equilibrium

Content: Defines chemical equilibrium. Explores how equilibrium can be upset by temperature, chemical properties, pressure or time. Introduces concepts pertaining to industrial manipulation.

Treatment: Illustrated lecture utilizing close-ups, models and animation. — Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: GC, DMo, DMy — Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....3	Picture.....2
Audience Suitability.....3	Sound.....ns
Structure.....2	Photo Technique.....3

Overall Rating: Fair

Comments: Technically wrong where it does not show competing reactions during shifts in equilibrium. Animation may introduce incorrect concepts. It is unfortunate that ammonia sulfate and urea crystals are not shown in their natural habitat. Inconsistent quality in animation.

Phase II - In-the-Field Evaluation:

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....3
Appropriateness as Substitute for Experiments or Demonstrations.....5

CHEMICAL REACTION AND TEMPERATURE

16mm, 14 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan — Date: 1967

Subject Area: Chemistry, Physics — Unit of Study: Chemical Reactions, Thermodynamics

Content: Explains relationships between chemical or molecular reactions and temperature. Uses charcoal as example to show kinetic motion of molecules in gas, reaction rate of molecules, bands. Demonstrates the effects of temperature chemical- physical states.

Treatment: Models, color and close-ups used to present change states. — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: ABB, DMy, WB — Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....ns
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: Excellent use of models to enhance description. Effective use of color spectrum to denote temperature changes. Script could be improved at beginning and end.

Phase II - In-the-Field Evaluation:

Evaluation Site: SI — Grade Level: 12

Teacher Ratings:

Overall Estimate of Film's Value.....3
Usefulness as a Teaching Material.....5
Appropriateness as Substitute for Experiments or Demonstrations.....2

CHEMISTRY IN NATURE

16mm, 17 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1969

Subject Area: Chemistry, Geology, Biology

Unit of Study: Chemical Composition

Content: Introduces, through an analysis of the chemical composition of lake water, the concept that all matter consists of chemicals. Examines unusual chemical deposits that exist in nature. Demonstrates the processes of chemical analysis.

Treatment: Illustrated lecture, using models, close-ups and time-lapse photography

Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RJJ, JM, RG

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	3

Overall Rating: Average

Comments: Good use of models in film. Simulation of natural processes very interesting. On-site filming is excellent. Some experiments seem to be included for dramatic effect (e.g., flower decolorization) rather than factual data consistent with film content.

CHEMISTRY OF SOLUTION

16mm, 14 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Gakken Co., Kamiikedai, 4-40-5, Ota-ku, Tokyo, Japan

Date: 1967

Subject Area: Chemistry

Unit of Study: Chemical Solutions

Content: Shows the physical and chemical characteristics of solutions and non-solutions. Uses simple experiments to determine these characteristics. Demonstrates differentiation through the use of heat, dyes, liquids, and polarized light.

Treatment: Factual analysis using demonstrations, animation, time-lapse, polarization, and photomicrography

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: DPo, RN, RD

Team Coordinator: RD

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	5

Overall Rating: Good

Comments: Too many concepts. There is poor integration and continuity of subject matter and experiments. There are many experiments often appearing to have little relationship to the previous or upcoming experiments. Photo techniques and photo quality excellent, making this a good film. Needs English translation to be effective as a teaching film.

Phase II - In-the-Field Evaluation:

Evaluation Site: PHI, OPI

Grade Level: 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	2

CHILDREN AND ART

16mm, 35 minutes, color, Japanese narration

Producer: Hanabusa Motion Picture Co., Yaesu 5-5, Chuo-ku, Tokyo, Japan

Date: 1969

Subject Area: Psychology

Unit of Study: Instruction of Children

Content: Examines the role of drawing in the mental growth of children. Presents a village teacher who teaches the true meaning of drawing through which he develops his students' powers of observation.

Treatment: Documentary with demonstration of techniques

Audience Level: Pri., Mid., Int., JH, Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: BD, PW, JN

Team Coordinator: WSt

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	5	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Superb photography and flow of visualization between pictures and sketches. Well organized, interesting concepts, and entertaining. This is an "art film" in itself. Music may be monotonous to some listeners.

CHROMOSOMES OF MAN

16mm, 20 minutes, color, English narration

Producer: Tokyo Cinema Co., Inc., Kanda Suragadai 2-1, Chiyoda-ku, Tokyo, Japan

Date: 1966

Subject Area: Biology

Unit of Study: Man, Human Heredity

Content: Examines the number and type of chromosomes in the normal human. Compares these chromosomes to the number and arrangement in other organisms and depicts abnormal arrangements of chromosomes in human beings. Illustrates how human chromosomes may be examined, using microphotography to show this inspection.

Treatment: Illustrated lecture using time-lapse and photomicrography

Audience Level: JH, SH, College-Undergrad., Grad.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, JT

Team Coordinator: WRV

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	4
Structure	4	Photo Technique	4

Overall Rating: Excellent

Comments: Negative value and reactions to the mixing of color and black and white footage.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM

Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value	5
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	3

CIRCULAR MOTION

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: Not available | Date: Not available

Subject Area: Physics | Unit of Study: Mechanics

Content: Presents bodies in circular motion to show that the intensity of the centripetal force is proportional to the mass of the body, the radius and the angular velocity raised to the second power. Depicts principle through use of dry ice, tethered springs and weights and strobe photography. Uses lecture and supportive staff for demonstrations.

Treatment: Demonstration lecture | Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: CB, RKH, WHE, EFN | Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	2	Sound	3
Structure	3	Photo Technique	3

Overall Rating: Fair

Comments: Film medium should not be used for presenting a complete lecture. Lip-sync in film is distracting. Segments of film could be used effectively in an auto-tutorial laboratory situation.

CIRCULATION OF BLOOD

16mm, 18 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan | Date: 1967

Subject Area: Physiology | Unit of Study: Circulation, Comparative Anatomy

Content: Reviews the similar characteristics and functions of animal circulatory systems. Begins by describing the circulatory system of the lower animal forms: sea squid, fish, frog and lobster; and describes the two major types of circulatory systems, "open" and "closed" using dissection and simple experiments. Discusses the working of the heart muscle, and shows experiments with the heart of a tortoise to explain parasympathetic and autonomic nervous systems.

Treatment: Factual development, using close-ups, animation and photomicrography | Audience Level: SH, College-Undergrad., Grad.

Phase I - Specialist Evaluation:

Evaluation Team: JS, DPo, RD | Team Coordinator: RD

Rating of Individual Production Elements:

Content	3	Picture	5
Audience Suitability	3	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Specific techniques of experiments are impressive. Subject matter is covered too broadly and superficially for any audience. Could have included animation of comparative circulatory systems to strengthen content development.

Phase II - In-the-Field Evaluation:

Evaluation Site: EM | Grade Level: 10, 11, 12

Teacher Ratings:

Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

CLOUDS

VTR ½" Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan

Date: Not available

Subject Area: Meteorology

Unit of Study: Clouds

Content: Discusses clouds and their composition, forms, and formations. Presents a fast-moving children's science show which uses four television monitors ("Four Eyes"), each representing a different type of vision (microscopic, naked eye, mind's eye, drama). Uses a professional actor as moderator to set a rapid pace by questioning the student audience and elaborating on answers via one of the four eyes. Uses the question/answer - problem-solving approach plus still photography motion study, animation, and actor's dialogue to present the concepts in simple to complex forms.

Treatment: Problem-solving approach

Audience Level: Mid, Int

Phase I - Specialist Evaluation:

Evaluation Team: CB, WHE, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	2	Sound	3
Structure	3	Photo Technique	4

Overall Rating: Average

Comments: Pace too rapid to allow students time to consider responses, however, stopping VTR to permit student responses could overcome this handicap. Outstanding feature is the use of 4 monitors for varied explanations. This technique has good possibilities. Picture quality could be detrimental to certain aspects of the content.

COLLOID

16mm, 21 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1965

Subject Area: Chemistry

Unit of Study: Colloids

Content: Defines a colloid and various colloidal states. Demonstrates how these colloidal states can be created and manipulated. Shows experiments dealing with colloidal states.

Treatment: Demonstration utilizing animation, close-ups and time-lapse techniques

Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: DMo, GC, DMy

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	na
Structure	5	Photo Technique	5

Overall Rating: Excellent

Comments: The evaluators viewing the film felt it would be a very usable item. The demonstrations are good and the presentation is easy to follow.

COMPUTER SIMULATION OF ORDER-DISORDER PHENOMENA

16mm, 31 minutes, color, English narration

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Physics

Unit of Study: Solid State Physics, Phase Transitions

Content: Shows use of computer in simulating the order-disorder phenomena. Visualizes effect of temperature, etc., on a video screen. Uses charts and graphs to plot results and illustrates the outline of a scientific report.

Treatment: Lecture utilizing graphics

Audience Level: College-Grad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: RJH, JCB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	4
Structure	4	Photo Technique	4

Overall Rating: Very Good

Comments: Some visual distraction due to very short segments with focus and camera movement problems. Although its intended purpose is to give a documentary account of a research project using a computer, the Japanese feeling for esthetics comes through very well. Science can be beautiful, and these film makers understand that admirably. Appropriate only for advanced physics students in solid state physics because the topics introduced have few basic explanations.

A CRAB'S LIFE

16mm, 21 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1962

Subject Area: Biology

Unit of Study: Crustacea

Content: Pictures a variety of crabs and shows how they protect themselves, obtain and utilize food, and the mating and life cycle of each type. Shows how particular varieties of crabs have body features associated with natural surroundings in which they live. Uses closeups and photomicrography to show the molting process of the different varieties.

Treatment: Documentary utilizing photomicrography, close-up and time-lapse photography

Audience Level: JH, SH, College-Undergrad., Grad.

Phase I - Specialist Evaluation:

Evaluation Team: GCW, DRG, PWB

Team Coordinator: WRV

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	4	Sound	ns
Structure	5	Photo Technique	5

Overall Rating: Excellent

Comments: Excellent content and photography; might be made a bit shorter. Appropriate vocabulary with a good use of taxonomic names; an improvement over similar films currently available on the topic.

CRYSTALS OF SNOW

16mm, 22 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1960

Subject Area: Chemistry, Meteorology

Unit of Study: Crystals, Weather

Content: Shows many photographs of different kinds and shapes of snow and ice crystals. Explains the different conditions that have caused particular snow crystal shapes to develop. Develops laboratory experiments to show how crystals form including the function of water vapor in their formation.

Treatment: Factual development, using photomicrography time-lapse, close-ups

Audience Level: Mid, Int, JH, SH, College-Undergrad., Grad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: JCB, DB, WT

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Takes too long to get to the point of the film (conditions under which snow crystals grow), could be shortened by 5 or 10 minutes.

CRYSTALLIZATION OF SAVOUR

16mm, 27 minutes, color, English narration

Producer: Tokyo Cinema Co., Inc., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Chemistry

Unit of Study: Applied Chemistry

Content: Shows the scientific steps used in synthesizing natural foods. Describes the particular case of monosodium glutamate. Raises the possibility of someday supplementing the world's food supply by chemical methods.

Treatment: Factual analysis

Audience Level: SH, College-Undergrad., Grad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, DB, RMB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	3	Sound	3
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Film has a nice balance of content. The time-lapse photography using polarized light and growing cultures is particularly effective. Some of the animation sequences showing molecules in a synthetic sequence indiscriminately have atoms floating about with no mention that enzymes are present and necessary. Narration could have been clearer.

DAIRY FARMING IN THE MOUNTAINS

16mm, 30 minutes, color, Japanese narration, accompanying English printed script

Producer: Shunju Motion Pictures Co., Jingumae 5-48-1, Shimbashi Bldg., Shibuya-ku, Tokyo, Japan

Date: 1968

Subject Area: Agriculture

Unit of Study: Dairy Farming

Content: Shows the hard struggle of Japanese dairy farmers in the mountainous districts of Kochi and Gumma Prefectures and in snowy Akita Prefecture. Depictshow farmers are reclaiming steep mountainous lands for green pastures, as a new type of dairy farming is introduced in these areas.

Treatment: Documentary

Audience Level: JH, SH, College-Undergrad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: JN, BD, PW

Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....ns
Structure.....3	Photo Technique.....5

Overall Rating: Good

Comments: Excellent photography and a well planned and developed presentation. Equipment and methods used will be of great interest to U. S. audiences.

DECIDUOUS TREES AND EVERGREEN TREES

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Cho-ku, Tokyo, Japan

Date: 1967

Subject Area: Biology, Botany

Unit of Study: Trees

Content: Examines botanically the structural differences between deciduous and evergreen trees. Shows the transpirational differences in leaf structure. Depicts the nature of the roots and their functions in moist and dry soil, and traces the flow of water through these types of plants.

Treatment: Illustrated lecture using time-lapse and photomicrography

Audience Level: Mid., Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, JT

Team Coordinator: PWB

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....5

Overall Rating: Average

Comments: Although no consensus was reached by the reviewers of this film, most agreed it could be edited into a useful presentation. Major criticism was that it was too long. The photography is excellent. Script translation is very rough. "Pores" = stomata (most American 9th graders would know this). Roots "suck up water" - not scientific, "take-up" would be better. Film could be shortened and still be effective.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM

Grade Level: 9

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	4

DEFORMATION AND DRAG OF BODY (4 cartridges)

Super 8mm Technicolor cartridges, #1-3½ minutes, #2-2 1/3 minutes, #3-2½ minutes #4-2 1/3 minutes, color, silent, accompanying Japanese script

Producer: Not available

Date: Not available

Subject Area: Physics

Unit of Study: Engineering Physics

Content: #1 - Shows relationship of different weights and how they cause springs to stretch. Uses special optics and light to show points of stress and stress lines, when a force is applied.
#2 - Shows stress lines when force is applied by either pulling or pushing.
#3 - Shows how different forces produce stress on material. Demonstrates stress lines and their differences using different weights.
#4 - Demonstrates action/reaction using a boat, tricycle, and two boys pulling a spring in opposite directions. Shows more work being done when spring attached to post, and both boys on one end pulling, as compared to one boy pulling at each end in opposite directions.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: LW, KH, DB

Team Coordinator: EJE

Rating of Individual Production-Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Suitable for engineering concepts.

DEVELOPMENT OF X-RAY ASTRONOMY

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Physics

Unit of Study: Astronomy

Content: Describes collaborative astronomical research between Japanese and American scientists. Presents observations from rockets which revealed celestial objects that radiate intense X-rays. Depicts Japanese scientist as he develops device for measuring the size and direction of the X-ray sources. Shows how, by special photographic methods using the optical telescope, celestial bodies emitting high X-ray radiation have now been located thus opening up new fields in astronomy.

Treatment: Factual analysis, using photography and diagrams

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW, TCA

Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....5	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Good editing and continuity. Useful to explain modern astronomy research techniques. An English soundtrack is essential to a clear understanding of presentation. Film rates high when compared to those on subject presently available in the U.S.

DIFFRACTION

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan — Date: Not available

Subject Area: Physics — Unit of Study: Wave Theory, Diffraction

Content: Presents a discussion of properties of wave motion concentrating on the principle of diffraction using sound, light and water as wave mediums. Brings to the viewer such demonstration tools as the projection ripple tank, unechoic room, laser light source black out projection box to show the variance in diffractory properties of the three mediums. Uses slow motion and close-up photography, along with oscilloscopes and other sophisticated sound equipment to graphically demonstrate the existence of long and short diffractor waves.

Treatment: Illustrated lecture — Audience Level: SH

Phase I - Specialist Evaluation:

Evaluation Team: CB, WHE, EFN — Team Coordinator: SG

Rating of Individual Production Elements:

Content	2	Picture	3
Audience Suitability	2	Sound	2
Structure	2	Photo Technique	3

Overall Rating: Fair

Comments: Experiments are good but methodology not compatible. Lip sync is poor and language dubbing distracting. Physics authority and moderator are distracting as they lack believable spontaneity.

DISCHARGE

16mm, 13 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1967

Subject Area: Physics — Unit of Study: Static Electricity

Content: Analyzes various ways static electricity is generated and the practical implications associated with the build up and discharge of this electricity. Uses an experimental apparatus to show some of the results of static electricity. Relates these results to thunder and lightning.

Treatment: Factual analysis — Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, APM — Team Coordinator: WRV

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Good

Comments: Generally good for introduction to static electricity. Nothing exceptional about this film that would place it above U.S. films available on same general subject. Footage on Van der Graaf generator is difficult to follow because of "jumpy" motion. Somewhat hasty examination of common static electric build-up (e.g. ignored walking on rug in cold and/or dry weather).

Phase II - In-the-Field Evaluation:

Evaluation Site: CI — Grade Level: 7,8

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

DISCOVERY OF ZERO

16mm, 20 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Ajia-Eiga-sha Co., Tokyo, Japan

Date: 1964

Subject Area: Mathematics

Unit of Study: History of Number Systems

Content: Traces the development of the Arabic number system used today. Explains how men counted without zero on their fingers and toes and how symbols were finally designed to represent specific quantities. Illustrates, through animation, how the invention of zero helped popularize the computational systems and how this invention developed world trade.

Treatment: Humorous documentary, cartoon-style

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: APM, DRG, JT

Team Coordinator: PWB

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....5	Sound.....ns
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: In places, the lack of continuity could be overcome with suitable recorded English script. Some bias - Chinese numerals are said to be easier to understand than Roman. Does not describe discovery of zero, therefore, has misleading title. Could be introductory unit to beginning work on number systems. Strengths: humor, graphics, continuity (generally), reinforcement - unusually good math film.

Phase II - In-the-Field Evaluation:

Evaluation Site: CPMd, PMd, MM

Grade Level: 8, 10, 11, 12, College-Undergrad., Grad.

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....5
Appropriateness as Substitute for Experiments or Demonstrations.....5

THE DYNAMIC FLOW OF LIFE

16mm, 26 minutes. color, Japanese narration, accompanying English printed script

Producer: Dentsu Motion Picture, Tsukiji 1-7-13, Chuo-ku, Tokyo, Japan

Date: 1967

Subject Area: Biology

Unit of Study: Circulatory System

Content: Explains, through use of the microscope and photography, the different types of blood cells, how they function, and how they are formed. Depicts hemorrhaging and phagocytosis.

Treatment: Illustrated lecture using photomicrography and time-lapse

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: SR, WSt, JBr

Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....3	Sound.....ns
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: A worthwhile presentation covering the rudiments of circulation. Provides a basis for discussion of mechanisms by which the various processes occur. Arrows or other means to point up specific details being presented should have been included. Excellent photomicrography.

Phase II - In-the-Field Evaluation:

Evaluation Site: FCV

Grade Level: 9, 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....4

ELECTRON MICROSCOPE

16mm, 22 minutes, color, English narration

Producer: Ajia Eigs-sha Co., Tokyo, Japan

Date: 1964

Subject Area: Physics

Unit of Study: Ultramicroscopy

Content: Demonstrates the advantages and presents the nomenclature of the electron microscope; shows the operation and the utility of this specialized instrument. Uses photomicrography to depict the advantages of using the electron microscope, rather than the regular optical type.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad., Grad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, JT

Team Coordinator: WRV

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	4
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: Excellent film; may be considered by some to be too long.

Phase II - In-the-Field Evaluation:

Evaluation Site: BM, SPM

Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	5
Appropriateness as a Substitute for Experiments or Demonstrations	3

ELECTRON MOVEMENT IN THE TUBE

16mm, 22 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan

Date: 1963

Subject Area: Physics

Unit of Study: Electron Beams, Vacuum Tubes

Content: Illustrates interior of an electric vacuum tube and the movement of the electron beam within the tube. Demonstrates the similarity to TV picture tube.

Treatment: Illustrated lecture using models, close-ups, slow-motion, and stroboscopic photography

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: FDS, DRG, WRV

Team Coordinator: APM

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	2	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Average

Comments: Rather detailed content, which seems typical of this type of physics film. Use of a number of analogies is effective, especially between electric and magnetic fields. Somewhat long to hold interest on this specific topic in an illustrated lecture format. Color would d to interest-holding ability (even if not to learning). Treatment is technical, necessitating that the audience be ready with prerequisite background. Could be edited to shorter length.

Phase II - In-the-Field Evaluation:

Evaluation Site: SI, SPM, CHM

Grade Level: 12

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	3

ENERGY

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan

Date: Not available

Subject Area: Physics

Unit of Study: Energy

Content: Develops the concepts of energy (kinetic and potential), work and their relationships and measurements. Offers demonstrations such as the inclined plane and glider to drive a nail into a clay block, a man mopping a floor, and a falling weight as examples which illustrate the points of the presentation. Utilizes close-up and stobe photography, and graphic illustrations to clarify in formula form the relationships between energy needed and work to be done.

Treatment: Illustrated lecture

Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: CB, WHE, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	2	Sound	1
Structure	2	Photo Technique	3

Overall Rating: Fair

Comments: Might be better with professional actors as scientists in presentation are very hesitant. Methodology not compatible with science methods used in U.S. Too many formulas for introductory film. Camera work and lip sync poor, and translation too literal.

ENERGY AND WATER

16mm, 27 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan

Date: 1961

Subject Area: Physics

Unit of Study: Energy, Water Power

Content: Informs about water in energy production. Discusses and demonstrates the forms of energy produced by water, (either liquid or vapor). Provides examples of devices by which water produces energy, such as turbines, water wheels, Pelton Wheels, jets, and the Francis Wheel.

Treatment: Illustrated lecture with models, mock-ups, close-ups, and time-lapse

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: ABB, DMy, WB

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	2
Audience Suitability	4	Sound	ns
Structure	4	Photo Technique	3

Overall Rating: Average

Comments: Background music at times overpowering. Good demonstrations, using models. Photo techniques fair, but detract from over-all quality. Logical development of content, but production is too long. The film appears to be old, because of the photo techniques used in its production.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM, GRM

Grade Level: 6,7

Teacher Ratings:

Overall Estimate of Film's Value	2
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	3

EVAPORATION: HOW AND WHY

16mm, 14 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1962

Subject Area: Physics

Unit of Study: Evaporation

Content: Depicts molecular activity in evaporation of a liquid. Uses water as an example to demonstrate process. Presents the environmental states which affect evaporation.

Treatment: Factual analysis with demonstration using models, close-ups and photomicrography

Audience Level: Mid., Int., JH, SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: JM, DMa, EHS

Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....2	Picture.....3
Audience Suitability.....4	Sound.....na
Structure.....2	Photo Technique.....3

Overall Rating: Fair

Comments: Of limited value. Evaluators orally verbalized that the film was of low value while their written evaluations rate it higher. Comparable films on same subject of higher quality are available in U.S.

Phase II - In-the-Field Evaluation:

Evaluation Site: RM, MM

Grade Level: 5, Senior High

Teacher Ratings:

Overall Estimate of Film's Value.....2
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....4

EXPEDITION TO THE ANTARCTIC POLE

16mm, 25 minutes, color, Japanese narration, accompanying Japanese printed script

Producer: Asahi Television News Co., Roppongi 6-4-10, Minato-ku, Tokyo, Japan

Date: 1969

Subject Area: Engineering/Technology, Geography

Unit of Study: Weather, Polar Areas

Content: Shows preparations of Japanese polar expedition group prior to leaving Showa Station for Antartic Pole. Depicts mobile equipment, living quarters of men, food preparation, recreational activities in mobile quarters, and arrival at the Pole.

Treatment: Documentary

Audience Level: JH, SH, Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LGH, MSF

Team Coordinator: MSF

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....3

Overall Rating: Average

Comments: Some very good photography, some of it taken under bad weather conditions. Shows problems of a trip over uncharted snowfields. Film has limited human interest.

EYE ON THE ROAD

16mm, 29 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Kanagawa News Eiga Kyokai, Inc., Nihon-odori 1-1, Naka-ku, Yokohama, Kanagawa Prefecture, Japan

Date: 1967

Subject: Automobile Operation

Unit of Study: Pedestrian and Driver Safety

Content: Points out a number of causes of traffic accidents, both from the viewpoint of the driver and pedestrian. Relates these accidents to human factors of perception and attention.

Treatment: Illustrated lecture, with staged demonstrations, slow motion and stop action photography used

Audience Level: Mid., Int., JH, SH, College-Undergrad., Grad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: BD, JN, PW

Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Excellent use of staged examples of common causes of accidents. Interesting concepts and well-documented research studies, such as in use of "eye-movement camera." Would be useful for pedestrian and driver education at all levels. Factual and unbiased.

FERNS

16mm, 14 minutes, color, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikeda, 4-40-5, Ota-ku, Tokyo, Japan

Date: 1969

Subject Area: Biology - Botany

Unit of Study: Plant Morphology

Content: Presents a study of ferns by examining specific types. Provides such examples of ferns as the shield fern, oak fern, salvinia, cross-leaf, pinnate and chain fern. Informs about the structure of the fern, processes of reproduction and growth patterns of ferns in their natural habitats.

Treatment: Illustrated lecture using time-lapse, close-ups, and photomicrography

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RJJ, JM, RG

Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Very high quality of photography in production of this film. Should be a useful item, if made available with English sound track. Lacks diagrams for illustration purposes.

FESTIVAL OF SCIENCE

16mm, 58 minutes, color, English narration

Producer: Tokyo Cinema Co., Inc., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan

Date: 1965

Subject Area: General Science, Social Studies

Unit of Study: Technology

Content: Details the role of science in the 1964 Olympics in Tokyo. Explains the development and use of science in testing soils for the best track; supplying the finest timing devices; constructing buildings to house the many games and activities; and many other areas of needed technical assistance. Presents views of parts of the Olympic Games in action.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: VE, LEP, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	3	Sound	4
Structure	3	Photo Technique	5

Overall Rating: Average

Comments: Film is slanted toward Japan's electronic industry. Very interesting for special groups of scientists and construction peopla. Interesting for those in professional physical education classes - mature adults and/or students. There is too much rambling and supporting detail for the general classroom. Possibly an edited varsion for general audiences would be useful.

Phase II - In-the-Field Evaluation:

Evaluation Site: BMd

Grade Level: 9

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	5

FIGHT AGAINST CANCER

16mm, 54 minutes, color, Japanese narrstion, accompanying English printed script

Producer: Asahi Television News Co., Roppongi 6-4-10, Minato-ku Tokyo, Japan

Date: 1967

Subject Area: Medicine

Unit of Study: Cancer detection and treatment

Content: Portrays the family-patient situation when cancer has been located, illustrating the procedures used for identifying stomach cancer and the treatment prescribed for that patient. Describes the overall problem of fighting cancer by setting up rural test stations. Uses photomicrography of tissues and chromosomes to show the difference between healthy cells and cancer cells. Introduces the danger of smoking and pollution in causation of cancer.

Treatment: Case-study approach using time-lapse, close-ups and photomicrography

Audience Level: JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: RM, HML, JCR

Team Coordinator: DG

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: Although sometimes overly dramatic, the presantation lends persuasivenass and maintains the viewer's interest in the medical techniques involved in locating and treating cancar. Factual material is accurate. Good introduction to environmental aspects of the disease.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM, MM, EM, PHI

Grade Level: 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

FISH FARMING IN JAPAN: BUILDING FUTURE FISHING GROUNDS

16mm, 30 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan

Date: 1968

Subject Area: Biology

Unit of Study: Marine Biology, Ecology, Fisheries

Content: Depicts the current fish farming practices in Japanese coastal waters whereby large yields of octopuses, lobsters and scallops are produced.

Treatment: Documentary

Audience Level: JH, SH, College-Undergrad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: JDL, MSF

Team Coordinator: JDL

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....3

Overall Rating: Average

Comments: Film appears to be made up of segments rather being a conesive presentation. Quality of the photography is variable. A good overview of fish farming in a restricted area of Japan.

FISH FARMING IN JAPAN: IMPROVEMENT OF ENVIRONMENT FOR FISH

16mm, 30 minutes, color, English narration

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan

Date: 1967

Subject Area: Biology

Unit of Study: Marine Biology, Ecology, Fisheries

Content: Discusses role of science in increasing the food yield of the sea. Shows controlled spawning methods for prawns, octopi, abalone, trout and other fishes. Presents the place of phytoplanktons, zooplanktons, and marine snow, in the life and reproductive cycle of these marine food animals.

Treatment: Documentary

Audience Level: JH, SH, College-Undergrad., Grad., Adult-Teacher Educ., Special, Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: WTS, REM, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....4
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Seems to ignore many basic principles of marine ecology. Shows how Japan is improving marine fisheries, but doesn't show how their efforts are affecting the total picture of environment. Opens one's eyes to possibilities of maintaining and farming marine life.

FISH HABITATS

16mm, 29 minutes, color, Japanese narration, accompanying English printed script

Producer: Asahi Television News Co., Roppongi 6-4-10, Minato-ku, Tokyo, Japan

Date: 1968

Subject Area: Biology

Unit of Study: Fish

Content: Depicts the mutual relationship between seaweeds and fish. Shows how seaweed and algae are indispensable to life of fish. Emphasizes importance of marine resources with a considerable portion of film consisting of sequences photographed underwater.

Treatment: Illustrated lecture with underwater photography

Audience Level: Int., JH SH, College-Undergrad., Grad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: WK, BD, JN

Team Coordinator: WSt

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: A very interesting and informative film. However, the English script is inadequate. It has few scene descriptions and the language used is stilted and difficult to follow.

FISHING NET OF THE WORLD

16mm, 26 minutes, color, English narration

Producer: Tokyo Cinema Co., Inc., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan

Date: 1963

Subject Area: Marine Biology

Unit of Study: Fish

Content: Uses models to demonstrate a variety of fishing nets and methods for their use. Illustrates the type of fish caught and some of their habits. Informs about the advantages of Japanese nylon over natural fibers in ease of care and size of nets, as compared with the previously used natural fiber nets.

Treatment: Documentary utilizing on-location photography, close-ups and models

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: ZA, MLM, WRV

Team Coordinator: APM

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	3	Sound	5
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: The film can serve dual function; oceanography and textiles. It would be of special interest to an oceanography class at high school level, although a little too much time spent in laying and taking in of nets in so many different instances. For a textile class, it illustrates a use for nylon man-made fibers; however, it needs to be edited so that it will be usable, since too much time is taken for the limited material covered. Viewers need to be primed to know what points to extract from the film.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM, MM

Grade Level: 9

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	3

FORCE AND MOVEMENT

16mm, 20 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1964

Subject Area: Physics

Unit of Study: Laws of Force and Motion

Content: Reviews some of the laws which control physical movements. Discusses the laws of inertia, velocity, and force. Demonstrates the application of these laws.

Treatment: Illustrated lecture using models and close-up and slow-motion photography

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, APM

Team Coordinator: PWB

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....2	Sound.....na
Structure.....2	Photo Technique.....2

Overall Rating: Poor

Comments: Several American films do a better job with this topic. PSSC films use similar apparatus with superior techniques. Without English soundtrack it is difficult to follow exact correlation of events with descriptions.

Phase II - In-the-Field Evaluation:

Evaluation Site: HMBC

Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value.....1
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....3

FOREST

16mm, 46 minutes, color, Japanese narration

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1963

Subject Area: Biology, Engineering/Technology

Unit of Study: Ecology, Conservation, Forestry

Content: Depicts logging, milling of lumber, and processing of forest products. Shows culturing of seedlings, reforestation, and general care of a forest.

Treatment: Documentary

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: MSF, LGH

Team Coordinator: MSF

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: While the film is long, it is a very good documentary of the harvesting and planting of trees. Film could be edited into two presentations - logging and processing of trees and reforestation. Useful for classes in ecology, reforestation and conservation. Photography and color are excellent.

FORGING

16mm, 25 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan Date: 1962

Subject Area: Engineering/Technology Unit of Study: Metalwork

Content: Demonstrates the art of forging metals including the necessity of controlled heat, the role of dies, and how they are made. Compares material shaped with a small force applied with high frequency, and a large force applied slowly. Explains terms such as free forging, die forging, critical point, temper, and flash or fins.

Treatment: Illustrated lecture using close-ups, photomicrography and cut-aways. Audience Level: SH, Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: RMe, DH, DB Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Average

Comments: There are several U.S. films that demonstrate the points just as well. U.S. method of forging is probably more automated. This film could use some reogranization, clarification of continuity, which may mean some editing. Color would help the presentation.

FRICTIONAL ELECTRICITY

16mm, 12 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan Date: 1968

Subject Area: Physics Unit of Study: Electricity

Content: Shows various means for generating static electricity. Depicts rubbing glass and rubber rods in fur, a comb through hair, and an electrostat. Explains how an electrical force affects a stream of water.

Treatment: Illustrated lecture with demonstrations Audience Level: Int, JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RMi, KB, VRT Team Coordinator: VRT

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....2	Sound.....na
Structure.....2	Photo Technique.....4

Overall Rating: Fair

Comments: Film is old-fashioned and similar to the early EBF science films. Does not follow current practice in science education of teaching inquiry/discovery or process, but teaches the products of science - facts and information. This motion picture might better be broken down into segments to be used as "single concept" films.

FRICTIONAL FORCE

16mm, 15 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1967

Subject Area: Physics — Unit of Study: Friction

Content: Demonstrates the relationship between external force and frictional force of both moving and stationary objects. Illustrates the amount of external force required to move an object by using a sand weight apparatus. Shows the difference between rolling and sliding friction.

Treatment: Demonstration method, using models and close-up photography — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RGr, DRG, JT — Team Coordinator: WRV

Rating of Individual Production Elements:

Content	3	Picture	2
Audience Suitability	2	Sound	na
Structure	3	Photo Technique	3

Overall Rating: Fair

Comments: Uninteresting and laboriously slow; use of same models boring. Translated English narration hard to follow and relate to visual presentation. There are U.S. films that do much better job in covering this topic.

Phase II - In-the-Field Evaluation:

Evaluation Site: HMBC — Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

THE FROG

16mm, 22 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1964

Subject Area: Biology — Unit of Study: Amphibia

Content: Shows the anatomy and habits of the frog. Presents the internal parts and organs accompanied by an explanation on their function. Uses extreme closeups and dissections for purposes of illustration.

Treatment: Illustrated lecture — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: DS, RWD, VRT — Team Coordinator: VRT

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Very good close-up photography

Phase II - In-the-Field Evaluation:

Evaluation Site: WELM — Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value	5
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	5

FROM MONKEY TO MAN: HOW MAN HAS EVOLVED

16mm, 29 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1966

Subject Area: Biology — Unit of Study: Evolution, Anthropology, Primates

Content: Characterizes the evolutionary pattern of man from prehistoric remains. Illustrates the functional and anatomical similarities between different species of monkeys and man. Charts evolution of man, using archeological specimens and his tools, on a developmental map that depicts him within the scale of other evolutionary systems.

Treatment: Illustrated lecture using animation, charts and live action scenes — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: BG, DG, BM, HML — Team Coordinator: DG

Rating of Individual Production Elements:

Content	2	Picture	2
Audience Suitability	2	Sound	na
Structure	2	Photo Technique	2

Overall Rating: Poor

Comments: The structure of the film and presentation of ideas are not appealing to a general audience because there is no impact or "content motif" that can "carry" the viewers through the film. For a specialist, the level of information is too low. Also, the picture quality seems to reflect the same lack of impact, with low key photography and lack of detail as a consequence.

Phase II - In-the-Field Evaluation:

Evaluation Site: FI, SPM — Grade Level: 9, Senior High

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

FROZEN FISH

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan — Date: 1965

Subject Area: Engineering/Technology — Unit of Study: Food Preservation

Content: Examines techniques for properly freezing and preserving sea food (fish). Shows operations on freezer ships and in processing plants. Provides suggestions and techniques for preparing meals from frozen sea food.

Treatment: Illustrated lecture utilizing time-lapse and photomicrography — Audience Level: Int., JH, SH, Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: OJ, OL, RG — Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	na
Structure	5	Photo Technique	4

Overall Rating: Average

Comments: Freezing technology shown is not the latest or most up-to-date. Good film for showing culture, industry and techniques used in one country's frozen fish industry. An interesting presentation that should be useful for home economics, consumer education, and economics. Presents interesting aspects of Japanese life. There are some omissions in translated narration in view of the visuals presented.

FUNCTION

16mm, 23 minutes, b & w, Japanese narration, accompanying English Printed Script

Producer: Kyoritsu Eiga Co., Ginza 8-12-15, Chuo-ku, Tokyo, Japan Date: 1969

Subject Area: Mathematics Unit of Study: Functions

Content: Explains the concept of functions, and the analysis and application of functional relations. Depicts close relationship between function and everyday life. Shows how the meaning of domain and value, of function and discovery or homologic rule are formulated or graphed in sea level and temperature variation.

Treatment: Factual presentation using animation and field measurements Audience Level: JH, SH, Adult-Teacher Educ.

Phase I - Special Evaluation:

Evaluation Team: LPG, RTH, LCJ Team Coordinator: LPG

Rating of Individual Production Elements:

Content	5	Picture	4
Audience Suitability	5	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: The basic approach to showing the meaning of the concept of function is outstanding. However, the extensive use of Japanese symbolism significantly diminishes its value for use in a non-Japanese classroom.

FUNCTION OF THE LUNGS

mm, regular, Technicolor cartridge, 3 minutes, color, silent, accompanying English printed script

Producer: Not available Date: Not available

Subject Area: Biology Unit of Study: Physiology

Content: Depicts through animation the processes whereby carbon dioxide in the blood is exchanged for oxygen in the lungs and the oxygen is carried in the arteries to all parts of the body.

Treatment: Cartoon-style Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: LGH, MSF Team Coordinator: MSF

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	3

Overall Rating: Good

Comments: Good use of animation techniques to explain exchange of gases in lungs and body tissues. Even without printed script the message can be understood.

GENETICS - STUDY OF DNA

16mm, 25 minutes, color, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan Date: 1968

Subject Area: Biology Unit of Study: Genetics

Content: Traces the structure and chemical composition of micro structures from a cell to DNA ladder. Analyzes and compares the DNA ladder structure to RNA structure. Describes the chemical makeup of each structure by use of animated comparisons. Describes the transfer RNA to the workings of a factory; uses this simile to explain production of amino acids. Reviews genetic differences of pig, mouse, chickens and plants, as they relate to the DNA structure.

Treatment: Use of animation and models Audience Level: SH, College-Undergrad, Grad. Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: EWN, JS, RD Team Coordinator: RD

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....4	Sound.....ns
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: All of the living examples are not necessary. The film tends to be "dragged out". Some of the translated English narration is not correct, i.e., the major ingredient of the nucleus is the albumen. Otherwise, an excellent presentation.

Phase II - In-the-Field Evaluation:

Evaluation Site: [illegible] Grade Level: 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value.....5
Usefulness as a Teaching Material.....5

GEOLOGICAL STRUCTURE AND CRUST MOVEMENTS

16mm, 24 minutes, color, Japanese narration, accompanying English printed script

Producer: Kyoritsu Eiga Co., Ginza 8-12-15 Chuo-ku, Tokyo, Japan Date: 1966

Subject Area: Geology Unit of Study: Geological history of an area

Content: Presents an investigation of the Chichibu Mountains in Japan as evidenced by deposits. Uses both sedimentary and other forms of rocks to hypothesize about crustal and orogenic movements which have occured in the area in the past. Explains the origin of geosynclinal mountains using the Chichibu Mountains as an example.

Treatment: Illustrated lecture Audience Level: JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: NB, DRG, JT Team Coordinator: APM

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....ns
Structure.....3	Photo Technique.....2

Overall Rating: Average

Comments: Tends to present topics without sufficient build-up. Additional graphics needed after each segment of film as new strata are discussed. Perhaps graphical treatment explaining geology followed by views of examples in mountains would be superior treatment for clarity. Compared with other films on Japanese geology it tends to be poor and would have a limited audience due to nature of film's exclusive use of Japanese examples. In advanced geology class, this film would be a useful illustration of principles on international basis.

GLASS AND WIND

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Bunka Production, Takaido-Higashi 4-15-3, Suginami-ku, Tokyo, Japan

Date: 1968

Subject Area: Engineering/Technology

Unit of Study: Construction Materials

Content: Portrays testing techniques for structural glass in realistic and controlled situations with implications for use in areas frequented by typhoons and other high wind conditions. Presents developmental approach by first illustrating the problem with normal glass, and then by showing a solution arrived at through experimentation and actual use of glass which is highly flexible and resistant to breakage during pressure changes. Uses vacuum chambers, closeup and motion study photography, and grid markings on the glass to enhance for the viewer the flexing of the glass as stresses are applied.

Treatment: Documentary with dramatization

Audience Level: Adult - Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: VM, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	5
Audience Suitability	4	Sound	na
Structure	5	Photo Technique	4

Overall Rating: Average

Comments: Not an educational but an excellent promotional film, with good photography. Indicates thorough understanding of media for creating favorable image. Could be used by professionals as an example of a good promotional film and also how the depicted type of experimentation might be carried on.

GLASSWORK

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan

Date: Not available

Subject Area: Engineering/Technology

Unit of Study: Glasswork

Content: Offers an informative demonstration on the construction of handmade chemistry laboratory equipment that a science student might use. Shows how to break, hold, heat, shape and blow glass tubing for various items and discusses the properties and sizes of glass tubing required for various tasks. Use of still photos and close-up camera shots allows the viewer to readily view the construction of pipettes, balls, condensation spirals, and glass and metal joints.

Treatment: Demonstration

Audience Level: SH, College- Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: CB, WHE, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	4	Sound	3
Structure	3	Photo Technique	4

Overall Rating: Average

Comments: Excellent demonstrations. Attempts at questions and answers between moderator and demonstrator are poor. Good editing could make this a very useful learning tool.

GRASSHOPPERS

16mm, 12 minutes, color, Japanese Narration, accompanying printed script and audiotape cassette in English.

Producer: Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1968

Subject Area: Biology — Unit of Study: Entomology

Content: Portrays the life cycle and environment of grasshoppers. Uses emperiments to show grasshoppers' attraction to light and the types of food they do and do not like. Observes female grasshoppers laying eggs via photomacrography.

Treatment: Factual analysis — Audience Level: Pri., Mid., Int.

Phase I - Specialist Evaluation:

Evaluation Team: LW, MS, DWH — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	3	Picture	4
Audience Suitability	3	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: For the younger students, film will provide awareness of grasshoppers. Outstanding photography, especially the close-up of molting and egg laying. Confusion may occur from the unexplained use of the term "middle" instead of thorax.

HISTORY OF JAPANESE AGRICULTURE

16mm, 33 minutes, color, Japanese narration, accompanying English printed script

Producer: Nosan Gyoson Bunka Kyokai Corporation, Akasaka 7-6-1, Minato-ku, Tokyo, Japan — Date: 1968

Subject Area: Agriculture — Unit of Study: Sociology, History of Agriculture

Content: Illustrates the history and development of agriculture in Japan from its beginning to the present through the use of ancient relics, pictures and photographs. Shows the efforts and various technical devices of present-day farmers.

Treatment: Documentary, using artifacts — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW, TCA — Team Coordinator: LPG

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	3	Sound	no
Structure	3	Photo Technique	3

Overall Rating: Average

Comments: Useful in social studies course to give authentic picture of Japanese agricultural history.

HOW THINGS BURN

16mm, 16 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1969

Subject Area: Chemistry — Unit of Study: Combustion

Content: Examines the changes which take place when things burn using the flame of a candle as an example. Depicts the combustion of liquids, such as gasoline, and gases.

Treatment: Factual presentation using photo analysis — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: PWW, TCA, LPG — Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Excellent photography, including Schlieren, showing phenomena difficult to demonstrate in the classroom. Excellent development and the film treatment lends itself to inquiry lesson on how to put out a fire. Students should be warned not to try all of the demonstrations, especially the one using gasoline, because of possibility of fire.

HOW TO FIND FAULTS IN MACHINES

16mm, 26 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan — Date: 1961

Subject Area: Engineering/Technology — Unit of Study: Mechanics

Content: Examines machine failure with logical trouble-solving techniques. Uses automobiles as representative of complex machines, which may malfunction and need to be repaired. Divides a machine into several systems for purposes of analyzing failures, and explores trouble-shooting procedures.

Treatment: Illustrated lecture using models and close-up photography — Audience Level: SH

Phase I - Specialist Evaluation:

Evaluation Team: MD, PTa, NN — Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....2	Picture.....1
Audience Suitability.....2	Sound.....na
Structure.....1	Photo Technique.....2

Overall Rating: Poor

Comments: Good for introducing problem-solving techniques when working with machines, but muddies the water by incorporating aspects of safe driving. Basic principles of driving and car care presented are not acceptable in U.S.A. at this time, especially the use of liters, kilometers, and Centigrade temperatures. Basically a driver education film - not general science. Many U.S. films are available for driver education and car maintenance. Translated narration script a little on the "dramatic" side.

HUMAN BODY I: THE BLOODSTREAM

Super 8mm Technicolor cartridge, 2 minutes, color, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Circulation

Content: Shows examples of blood flow in the ear of a rabbit, web of a frogs foot and lung of a frog. Shows movement of blood in different directions.

Treatment: Factual analysis using photomicrography

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: An excellent presentation. However, green spots appear on film several times and focusing seems poor on photomicrographs.

HUMAN BODY I: BONES OF THE BODY

Super 8mm Technicolor cartridge, 2 minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Skeletal System

Content: Identifies bony tissue and labels the makeup of bone.

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....3

Overall Rating: Average

Comments: The percentage of bony structure should be at the beginning rather than at the end of film. There are several poor frames between transitions that interrupt continuity. Good cross and longitudinal shots.

HUMAN BODY I. THE DIGESTIVE ORGANS

Super 8mm Technicolor cartridge, 3 minutes, b & w, silent, accompanying English printed script

Producer: Not available | Date: Not available

Subject Area: Biology | Unit of Study: Digestion

Content: Uses fluorography techniques to show the action and flow of food stuff through the gastrointestinal tract.

Treatment: Factual analysis using fluorography | Audience Level: Int. JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG | Team Coordinator: DG

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Good

Comments: Good use of fluorography; many distracting white scratches limit effectiveness.

HUMAN BODY I: HEART AND CIRCULATORY SYSTEM

Super 8mm Technicolor cartridge, 2½ minutes, b & w, silent, accompanying English printed script

Producer: Not available | Date: Not available

Subject Area: Biology | Unit of Study: Circulation

Content: Shows action of heart with fluorography, parts of heart labelled on a chart. Presents, via animation, the flow of blood in and out of the heart, as well as the pumping action. Illustrates the systemic flow through the body, and shows capillary flow of blood.

Treatment: Live action photography and animation | Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG | Team Coordinator: DG

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....na
Structure 4	Photo Technique 3

Overall Rating: Good

Comments: Labeling in Japanese presents a communication problem for U.S. students. Pumping of heart and resultant blood flow is well done.

HUMAN BODY I: STRUCTURE OF JOINTS

Super 8mm Technicolor cartridge, 2½ minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Skeletal System

Content: Shows the action of a ball joint in a human skeleton. Presents the joints of the elbow, wrist, and finger. Diagrams the make-up of a ball joint.

Treatment: Demonstration using fluorography and live action

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....3

Overall Rating: Good

Comments: Good X-ray views of hinge and rotary joints. Needs an X-ray shot of the ball-and-socket joints.

HUMAN BODY I: STRUCTURE OF THE EAR

Super 8mm Technicolor cartridge, 2 minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Ear, Hearing

Content: Shows the action of a vibrating ear drum. Depicts the parts of the ear, with labels, using actual specimens and presents dissected examples of ear parts. Illustrates the action of ear parts which produce the hearing sense through the use of animation.

Treatment: Demonstration using models and diagrams

Audience Level: JH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Japanese labels present a problem for U. S. students

HUMAN BODY II: FUNCTION OF THE LUNGS

Super 8mm Technicolor cartridge, 3 minutes, color, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Circulation, Respiration

Content: Shows the oxygen transfer in lungs from air to blood by use of diagrams. Relates the process to the pumping of blood to the heart.

Treatment: Demonstration using animation

Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Particularly good because there is no labeling of parts in Japanese, and thus can be used with ease. There is poor color contrast in sequence on exchange of gases and one cannot see the blue (CO_2) and red (O_2) particles being exchanged.

HUMAN BODY II: THE KIDNEY

Super 8mm Technicolor cartridge, 2 minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Renal System

Content: Uses photomicrography to show nephrons. Shows the process of renal metabolism. Parts of kidney are labelled

Treatment: Demonstration using animation and photomicrography

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....na
Structure.....5	Photo Technique.....4

Overall Rating: Excellent

Comments: Presentation clear and well organized, with good photography.

HUMAN BODY II: MUSCLES THAT MOVE BONES

Super 8mm Technicolor cartridge, 3 minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Muscular System

Content: Shows the principle behind the muscle leverage in flexion and extension of the forearm. Uses a wooden model with pulleys to demonstrate the principle. Shows, through fluorography and animation, the actual process.

Treatment: Demonstration using animation, models, and fluorography

Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: A good presentation that gives variety of exemplars. There is a good action diagram of flexion-extension. The example of contraction-extension, using the string, is misleading.

HUMAN BODY II: PERSPIRATION

Super 8mm Technicolor cartridge, 2 minutes, color, silent, accompanying English printed script

Producer: Not available

Date: Not Available

Subject Area: Biology

Unit of Study: Skin, Perspiration

Content: Examines the makeup of the skin and identifies its parts. Uses photomicrography to show epithelial and other skin-related tissue. Includes diagrams to illustrate perspiration or sweating.

Treatment: Demonstration using animation, photomicrography and live action

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....5	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: Good photomicrography. Film well structured.

HUMAN BODY II: STRUCTURE OF THE EYE

Super 8mm Technicolor cartridge, 2 minutes, b & w, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Eye, Seeing

Content: Illustrates the process of seeing. Shows the change that occurs with dilation. Identifies parts of eye on a chart using animation.

Treatment: Demonstration using animation

Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RR, GB, JAG

Team Coordinator: DG

Rating of Individual Production Elements:

Content.....?	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: There appear to be lighting difficulties during photography at the beginning of presentation.

HYDRAULIC PRESSURE

16mm, 21 minutes, b & w, Japanese narration, accompanying Japanese and English printed summaries

Producer: Iwanami Productions, Inc. Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1964

Subject Area: Engineering/Technology

Unit of Study: Mechanics

Content: Depicts the pressure exerted by a column of water through use of lucite models, with elastic diaphragm bottoms. Demonstrates that pressure is independent of shape of container. Shows industrial application of these principles in hoists, jacks and presses.

Treatment: Illustrated lecture with actual examples, models and close-ups.

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: MG, MSF

Team Coordinator: MG

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: A very good presentation on the principles and usefulness of hydraulic pressure. Excellent use of models.

HYDROPONICS

16mm, 15 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1969

Subject Area: Botany — Unit of Study: Plant Growth

Content: Shows the growing of daffodil bulbs in water. Compares growth in darkness with development in light. Illustrates that a daffodil grown only in water obtains much nourishment from within bulb which loses weight during growing process.

Treatment: Demonstration, using time-lapse photography — Audience Level: Pri., Mid., Int., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW, TCA — Team Coordinator: LPG

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	3	Sound	na
Structure	5	Photo Technique	4

Overall Rating: Good

Comments: A good film on plant growth. However, there may be some cultural barriers to acceptance of Japanese children and drawings with Japanese writing. If carefully introduced by teacher, film could be well accepted at 5 - 6 grade level. Film has potential for teacher training.

IGNEOUS ROCK

16mm, 22 minutes, color, Japanese narration, accompanying English printed script.

Producer: Kyoritsu Eiga Co., Chuo-ku, Tokyo, Japan — Date: 1963

Subject Area: Geology — Unit of Study: Igneous Rock

Content: Discusses how volcanic, intermediate plutonic, and plutonic rocks are formed. Uses a polarizer microscope to distinguish between different kinds of igneous rocks. Explains an hypothesis regarding crystal differentiation of magma.

Treatment: Illustrated lecture using close-ups, photomicrography, models and diagrams. — Audience Level: JH, SH, College- Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: ARM, HRB, WT — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	2	Sound	na
Structure	2	Photo Technique	--

Overall Rating: Average

Comments: Much of the sequence seems to be out of order. Film jumps between black & white and color. Inaccuracies in translated narration text, especially in descriptions of rocks and minerals. Not useful for American audience without English sound track, and even then, it is rather inferior to comparable films already available. Many of the illustrations are captioned in Japanese.

Phase II - In-the-Field Evaluation:

Evaluation Site: SI — Grade Level: 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	5

INDUSTRIAL USES OF MICROORGANISMS

16mm, 30 minutes, color, Japanese narration, accompanying English printed script

Producer: Dentsu Motion Picture, Tsukiji 1-7-13, Chuo-ku, Tokyo, Japan

Date: 1969

Subject Area: Biology

Unit of Study: Microbiology

Content: Shows relationship between microorganisms and industry. Depicts fermentation of grape juice, production of alcohol, and discovery of pasteurization. Demonstrates role of microorganisms in breakdown of wastes, use of Pseudomonas bacteria to control pollution of water by mercury compounds, and role of bacteria and yeasts in breakdown of petroleum, copper, and iron.

Treatment: Illustrated lecture using photomicrography

Audience Level: JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW

Team Coordinator: LPG

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Good

Comments: Film demonstrates fascinating applications that are new to most secondary school students. Should be useful in motivating student interest in science. Of value to those interested in problems of industrial pollution, metal and food production.

INFLAMMATION: HOW AND WHY?

16mm, 22 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English.

Producer: Dentsu Motion Picture, Tsukiji 1-7-13, Chuo-ku, Tokyo, Japan

Date: 1969

Subject Area: Health Science

Unit of Study: Physiology, Pathology

Content: Presents the processes in the body which combat infection caused by entry of foreign material. Explains the action of leucocytes in the disease fighting processes. Shows the re-establishment of circulation in a diseased tissue area and proliferation of fibroblasts which regenerate connective tissue.

Treatment: Illustrated lecture using time-lapse and photomicrography

Audience Level: SH, College-Undergrad., Grad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: TS, JWH, EHS

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	5	Picture	4
Audience Suitability	5	Sound	ns
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: Outstanding photographic techniques to show details of changes in tissue cultures used in demonstrating processes of infection, inflammation, and tissue repair.

INORGANIC NUTRITION OF PLANTS

16mm, 18 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1967

Subject Area: Botany — Unit of Study: Plant Chemistry

Content: Depicts diseased plants which do not have sufficient quantities of the necessary chemical nutrients. Explains nitrogen fixation in plants and the role of bacteria (Rhizobium) in fixing nitrogen. Uses plants common to Japan.

Treatment: Illustrated lecture using time-lapse and photomicrography — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: GCW, DRG, WC — Team Coordinator: APM

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Good

Comments: Good use of taxonomic references in illustrating content. Broad coverage providing wide applicability. However, this broad coverage results in too-detailed a script that is hard to keep up with. Interesting close-ups of stomata. Photomicrography is generally excellent. Script is rather jerky as some scenes tend to cut abruptly. Film needs editing.

Phase II - In-the-Field Evaluation:

Evaluation Site: WBLM — Grade Level: Senior High

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstration	2

INSECT BODIES

16mm, 22 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1964

Subject Area: Biology — Unite of Study: Entomology

Content: examines the body structure of various insects according to three body divisions: the head, the thorax, and the abdomen. Discusses eyes (simple and compound), antennae, and mouth parts as major components of the insect head; wings and legs as predominant structures of the thorax area; the abdomen section is depicted, showing various spiracles. Uses animation and time-lapse photography to show various portions of the insect's body and life cycle.

Treatment: Illustrated lecture — Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: GCW, DRG, PWB — Team Coordinator: WRV

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Excellent photography of unusual scenes and detail. More variety might be of value. Deleting the Japanese labeling would be a positive factor.

Phase II - In-the-Field Evaluation:

Evaluation Site: SI — Grade Level: 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value	5
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	5

INSECT PESTS OF RICE PLANTS

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1968

Subject Area: Biology — Unit of Study: Entomology

Content: Shows the appearance and habits of formidable insect pests of growing rice plants. Depicts damage done in all seasons of the year.

Treatment: Illustrated lecture using photomacrography — Audience Level: Int., JH, SH, College-Undergrad., Grad. Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, PWW, CWR — Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: A well produced film that should be useful in classes on insect pests at graduate level. Probably of regional appeal in U.S. due to limited growing of rice.

INSECTS IN MOUNTAIN STREAMS

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1967

Subject Area: Biology — Unit of Study: Entomology

Content: Shows insect inhabitants of mountain streams in Japan. Identifies specific insects: trichopteras, plecopteras, ephemeras, and corydalidae. Presents the birth, life, and death cycles of these insects with an emphasis on living habits.

Treatment: Illustrated lecture — Audience Level: JH, SH, College-Undergrad, Grad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: HB, CH, VRT — Team Coordinator: VRT

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Good

Comments: Even with the problems with the translated script the subject specialists were impressed.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM — Grade Level: 9, 10

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

INTERFERENCE

VTR ½", Sony, 20 minutes, b & w, English narration.

Producer: NHK International, Tokyo, Japan — Date: Not available

Subject Area: Physics — Unit of Study: Wave Motion

Content: Discusses the property of wave motion known as interference, concentrating on the establishment of the idea of wave interference strips. Utilizes projection ripple tank, sound sending and receiving equipment, and laser light source to depict invisible and audible forms at the nodes and anti-nodes which are the resultants of meeting waves from photography to bring moire' patterns and other examples into sharp focus so the viewer is better able to ascertain what is occurring

Treatment: Illustrated lecture — Audience Level: SH

Phase I - Specialist Evaluation:

Evaluation Team: CB, WHE, EFN — Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	2	Sound	1
Structure	2	Photo Technique	3

Overall Rating: Fair

Comments: Lip sync is poor. Contains poor editing and generally the sound track is distracting. Seems to lack planning and appears to have methodology conflicts.

KINETIC ENERGY

16mm, 22 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1966

Subject Area: Physics — Unit of Study: Energy

Content: Develops relationships between kinetic energy, mass and velocity. Illustrates potential energy and momentum. Discusses conservation of energy.

Treatment: Illustrated lecture using close-up, time-lapse and stroboscopic photography — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: FDS, DRG, WRV — Team Coordinator: APM

Rating of Individual Production Elements:

Content	2	Picture	3
Audience Suitability	2	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Fair

Comments: Attempts to cover a number of topics in a single film. Covers too much too quickly. Uses too large a number of examples of similar principles of kinetic energy. Several segments are treated fairly well, and film might be edited and revised to elaborate only section on momentum and conservation of energy. Too many U.S. films do a far superior handling of topics. Might make several single-concept films instead of a 16mm film of this length. Topics can be treated in classroom in more meaningful manner.

Phase II - In-the-Field Evaluation:

Evaluation Site: GRM — Grade Level: 8

Teacher Ratings:

Overall Estimate of Film's Value	2
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	3

LASER

16mm, 25 minutes, color, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1968

Subject Area: Physics — Unit of Study: Light, Wave Theory

Content: Describes principle of the laser. Illustrates operation of several types of laser beams. Shows a number of applications, including holography.

Treatment: Illustrated lecture, using photomicrography — Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evalution Team: LPG, TCA, FWW — Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....3

Overall Rating: Fair

Comments: Excellent scenes of effects of laser beams on materials. Basic introductory information excellent, lacked continuity as presentation moved into body of film. English soundtrack necessary since subject is technical and sound needs to be closely related to picture. Film could be shortened by 5 - 8 minutes and thereby improved.

LAWS OF FALLING MOTION

16mm, 15 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1965

Subject Area: Physics — Unit of Study: Kinematics

Content: Demonstrates that the falling motion of projected balls is a combination of horizontal motion with constant velocity and vertical motion with constant acceleration.

Treatment: Illustrated lecture using models and high-speed photography — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: WSt, JBr, SR — Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....5	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: A detailed and clear presentation, with useful demonstrations. However, film rather overdoes its main point and is perhaps unnecessarily redundant.

LEAF ROLLING WEEVILS

16mm, 16 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1963

Subject Area: Biology — Unit of Study: Entomology

Content: Demonstrates how the leaf rolling weevils build their nests and the purpose of these nests. Shows how the female weevil chooses, prepares, and rolls the leaf into a nest or cocoon for the weevil larvae. Uses closeups and time-lapse photography to show the leaf rolling and the larval development inside the cocoon.

Treatment: Factual analysis, using close-up and time-lapse photography — Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, APM — Team Coordinator: WRV

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Outstanding film with excellent photography and structure. Does not indicate what species of plant the weevil uses, nor whether more than one species could be used. Presents a good example of "natural instinct". Offers several opportunities for student inquiry through questions asked in narration script.(e.g., Why does weevil crump...).

LIFE IS BORN

16mm, 17 minutes, color, partly Japanese and partly English narration.

Producer: Tokyo Cinema Co., Inc., Kanda Surugadai 2-1, Tokyo, Japan — Date: 1963

Subject Area: Biology — Unit of Study: Embryology,

Content: Shows the development of a chick embryo from the blastodisc phase of undifferentiated cells to a 90-hour embryo. Exemplifies cell division in the undifferentiated stages. Depicts the formation of the primitive streak, neural tube, the brain and circulatory system. Uses time-lapse photography to show developmental stages and photomicrography to depict the differentiated cells of nerves, muscle, epithelium, and fibroblasts.

Treatment: Illustrated lecture, using close-up, time-lapse and photomicrography — Audience Level: SH, College-Undergrad., Grad.

Phase I - Specialist Evaluation:

Evaluation Team: JDD, MRM, JAG — Team Coordinator: DG

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....4	Sound.....3
Structure.....2	Photo Technique.....5

Overall Rating: Good

Comments: The film may have a limited use because of its rapid development. Students of embryology as a specialty may think it too superficial, while high school biology students may find it highly elucidating and valuable. A more appropriate title might be: "Some Contributions of the Primitive Streak to Living Systems".

LIFE OF WATER BIRDS

16mm, 41½ minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1961

Subject Area: Biology — Unit of Study: Ornithology

Content: Shows birds in their natural habitats. Combines footage of water birds and descriptive narration to explain the birds' life cycles, nest building, mating, egg-laying, foraging for food, and reactions to natural enemies.

Treatment: Illustrated lecture, using close-up photography — Audience Level: Pre, Pri, Mid, Int, JH, SH, College-Undergrad., Adult, Gen.

Phase I - Specialist Evaluation:

Evaluation Team: DRG, JT, WRV — Team Coordinator: PWB

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....5

Overall Rating: Good

Comments: Sequences are too long, causing film to lose its overall effect. The strength of the film is in the close-ups of birds in their habitats. Very good picture quality and techniques. English sound is a must.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM — Grade Level: 9, 10

Teacher Ratings:

Overall Estimate of Film's Value.....3
Usefulness as a Teaching Material.....3
Appropriateness as Substitute for Experiments or Demonstrations.....3

LIGHT AND COLOR

16mm, 10 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1962

Subject Area: Physics — Unit of Study: Light, Electromagnetic Energy

Content: Shows the relationship between light and color, and examines the spectrum of color. Illustrates how the degree of refraction of white light influences the color. Shows how the original color of an object can influence the color it will appear when illuminated with the primary colors.

Treatment: Illustrated lecture — Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, JT — Team Coordinator: WRV

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....3	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Needs a more complete script, one where visual presentation is given, so that it is easier to follow and keep in sequence. Beautiful color photography. Does not explain diffraction of light in relation to wave theory, although this would probably be too theoretical for an introductory film.

Phase II - In-the-Field Evaluation:

Evaluation Site: RMd, PHI, GRM — Grade Level: 8, College-Undergrad.

Teacher Ratings:

Overall Estimate of Film's Value.....2
Usefulness as a Teaching Material.....2
Appropriateness as Substitute for Experiments or Demonstration.....3

LIQUIDS - I

Regular 8mm Technicolor cartridge, 2½ minutes, color, Japanese subtitles with accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids, gases, solutions

Content: Demonatrates how some solids change to liquids. Indicates that change takes place by dissolving and by heat. Uses color Schilieren method to visually see the changes in density.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

LIQUIDS - II

Regular 8mm Technicolor cartridge, 2 3/4 minutes, color, Japanese subtitles with accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids, gases

Content: Depicts how diffusion is reflected in molecular movement. Shows movement of fat particles when milk is dropped into water. Uses model balls to show diffusion.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHP, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: LIQUIDS - DISSOLVING, MELTING

Super 8mm Technicolor cartridge, 2½ minutes, color, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Demonstrates solids changing to liquids by dissolving and by heat. Uses color Schlieren method to visually demonstrate the changes in density.

Treatment: Factural analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: MOLECULES AND ATOMS

Super 8mm Technicolor Cartridge, 3 minutes, b & w, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Uses animated models to show how different molecules form new substances when combined. Explains concept of molecules and atoms in simple terms.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individaul Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: THE NATURE OF GASES

Super 8mm., Technicolor cartridge, 2½ minutes, color, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Shows that diffusion of gases takes place quicker than liquids. Demonstrates that the volume of gas decreases under pressure.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: THE NATURE OF LIQUIDS

Super 8mm Technicolor cartridge, 2 3/4 minutes, color, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Uses model balls to show diffusion and how it reflects molecular movement. Shows movement of fat particles when milk is dropped into water.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: SOLIDS I

Super 8mm Technicolor cartridge, 3 minutes, b & w, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Shows shape of crystals and their growth. Uses photomicrography to show relationships between crystals.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MATTER AND ITS STATES: SOLIDS II, RECRYSTALLIZATION

Super 8mm Technicolor cartridge, 3 minutes, color, Japanese subtitles, accompanying English printed script.

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solids, liquids and gases

Content: Uses time-lapse photography to show the growth of chemical crystals.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Lack of English subtitles limits usefulness.

MECHANISM OF LIFE

16mm, 30 minutes. color, English narration.

Producer: Sakura Eiga-sha Co., Nishi-Shinjuku 1-22-1 Shinjuku-ku, Tokyo, Japan

Date: 1969

Subject Area: Biology

Unit of Study: Bio-chemistry

Content: Surveys the biochemistry of amino acids. Shows make-up, structure of these acids. Presents the effects of these acids on life and life cycle.

Treatment: Illustrated lecture with animation.

Audience Level: SH, College -Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PF, DAH, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	3	Sound	4
Structure	4	Photo Techniques	5

Overall Rating: Good

Comments: Use of Japanese chemical symbols detracts from the value of the film and makes that portion worthless without interpretation by the teacher. Content is very specialized but useful to a limited number of students.

Phase II - In-the-field Evaluation:

Evaluation Site: BM, RM, SPM

Grade Level: 9th

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	
Appropriateness as Substitute for Experiments or Demonstrations	3

MODERNIZING JAPANESE AGRICULTURE

16mm, 29 minutes, color, Japanese narration.

Producer: Tokyo Films Co., Tokyo, Japan

Date: 1963

Subject Area: Agriculture

Unit of Study: Geographic aspects

Content: Illustrates a variety of agricultural activity and innovation currently necessary to cope with Japan's lack of useable land and proportionally large population. Shows reclamation projects, cooperative and dairy farms, fruit-growing and poultry-raising. Provides first-hand experiences utilizing ground, air, and closeup photography.

Treatment: Documentary

Audience Level: Int., JH, SH, College-Undergrad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: MP, PTe, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Techniques may have been modern in Japan in 1963, but are quite antiquated here. Might be useful to give U.S. students some idea of agriculture in the U.S. 30 to 50 years ago. Not science-oriented, would be better used in geography class but geographic orientation of the areas shown would be beneficial to the viewer. Good photography.

MOMENTUM

16mm, 16 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1965

Subject Area: Physics — Unit of Study: Kinetics

Content: Shows how velocity and mass directly affect momentum. Uses stroboscopic light to observe the periodic locative changes of objects. Discusses the law of conservation of momentum.

Treatment: Demonstration — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: FF, KH, WT — Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....2	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

MONKEYS OF KOSHIMA ISLAND

16mm, 35 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1969

Subject Area: Biology — Unit of Study: Animal Behavior

Content: Presents a photographic study, over a long period of time, of the ecology and behavior of the Japanese red-faced macaque on Koshima Island off the shores of Miyazaki Prefecture. Shows the organization of the monkey society with its well-established pecking order.

Treatment: Documentary — Audience Level: SH, College-Undergrad., Grad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LPG PWW, TCA, CRC — Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: A good presentation of the social behavior of Japanese macaques for a non-scientific audience. Slightly over-dramatized. Could be improved by shortening to about 25 minutes running time.

MORAINE

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan — Date: 1969

Subject Area: Geology — Unit of Study: Weather, Erosion

Content: Portrays the effects of weathering and erosion on rocks. Shows how limestone, metamorphic rock, and sandstone are formed. Explains how a study of the rocks can inform about the circumstances under which the rocks were formed.

Treatment: Illustrated lecture — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: JO, KH, WT — Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Shows process of weathering quite effectively.

MOSQUITO

16mm, 22 minutes, color, Japanese narration.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1966

Subject Area: Biology — Unit of Study: Entomology

Content: Illustrates the life cycle of a mosquito. Shows the natural environment and reproduction phase. Uses photo micrography to depict the larval stage.

Treatment: Factual analysis. Utilizes time-lapse, close-up, and photomicrography. — Audience Level: College-Undergrad., SH, JH

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DFG, FWB — Team Coordinator: WRV

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Outstanding visual presentation, coverage and organization of content. However, lack of English sound track is a negative factor.

Phase II - In-the-Field Evaluation:

Evaluation Site: EM, EM, SI — Grade Level: 6, 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....5

MOUNTAIN CHANGES

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1969

Subject Area: Geology, Earth Science — Unit of Study: Mountains, Erosion

Content: Explains the stages in the development and aging of mountains found in Japan. Discusses the youth period, maturity period, old age, and plain stages. Uses models to demonstrate erosioand wearing patterns.

Treatment: Factual analysis — Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: JO, KH, WT — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Use of models was tied in very nicely with the real features which they represent. Some sequences appear to be cut short of completion.

MOVEMENT OF MOLECULES

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1966

Subject Area: Physical Chemistry — Unit of Study: Molecular Structure

Content: Uses demonstrations and animation to show molecular movement. Describes molecular movement in solids, liquids, and gases. Presents the effects of pressure and volume on molecular motion. Presents an experiment showing how Boyle's Law is derived using the kinetic molecular theory of gas.

Treatment: Demonstration, using close-up photomicrography — Audience Level: SH, College-Undergrad., Grad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: CDC, JM, EHS — Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Some formulae were in Japanese. Could be cut into series of silent single concept films with English subtitles. Excellent description of some aspects of an electron microscope.

MOVEMENT OF THE EARTH

16mm, 23 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1966

Subject Area: Earth Science, Geology — Unit of Study: Earth Motion

Content: Presents the theories of Copernicus and observations of Galileo. Considers various proofs for the rotational movement of the earth, deflection of winds by Coriolis force, the oscillations of a Foucault pendulum, annual changes in the transit of stars, and the annual parallax of stars.

Treatment: Illustrated lecture, using animation — Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: MG, SIM, EFK, LAH — Team Coordinator: MG

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	5

Overall Rating: Average

Comments: Film contains too much technical information and moves too rapidly over it. A summary would have been helpful. The photography is excellent and the models and animation are very good.

MOVEMENT OF THE PENDULUM

16mm, 21 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan — Date: 1965

Subject Area: Physics — Unit of Study: Angular momentum, Pendulum motion

Content: Demonstrates various principles involved in pendulum motion, and the implications of varying periods of pendulum movement. Examines the practical applications of these principles, especially in gravitational measurement. Uses time-lapse and stop-action photo techniques to illustrate the various principles.

Treatment: Illustrated lecture, using models, animation, time-lapse, stop-action, and close-up photography — Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RGr, DGr, IT — Team Coordinator: WRV

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: The film is too long, script awkward to use (both in sentence structure and in relating to visual presentation). Photographic techniques well done and useful.

NATIONAL PARKS OF JAPAN (2 reels)

16mm, Reel I - 32 minutes, Part I, Nature in Kyushu; Part II, Coasts of Honshu; Reel II - 24 minutes, Part III, Mountains of Honshu; color, English narration

Producer: The Nippon Eiga Shinsha Ltd., Kami-Osaki 2-10-17, Shinagawa-ku, Tokyo, Japan

Date: 1964

Subject Area: Nature and Environmental Studies

Unit of Study: Japan

Content: Depicts, in three parts, the natural characteristics and scenery of the mountainous areas and coastlines of the Japanese islands of Kyushu and Honshu. Shows the world's largest caldera in the Aso National Park and the active volcano, Mt. Kaimon, in Kyushu. Depicts in Honshu severe erosion by waves, the precipitous cliffs of Rikuchu densely populated with gulls, and the inland sea of Seto and its over 600 islands. Presents also Mt. Fuji and the mountains forming the Northern Japanese Alps, with their vegetation during four seasons of the year.

Treatment: Illustrated narrative

Audience Level: Pri., Mid., Int., JH, SH, Adult-Gen.

Phase I - Specialist Evaluation - Reel I:

Evaluation Team: LW, IM, ME, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	4	Sound	4
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Technically good, but lacking in continuity of photo scenes and narration. Film would help young children see that there are many mountains in Japan, some of which are volcanic. Shows similarity to places in U. S., such as Oregon. Portions showing people would be more appropriate for primary grades. Not very useful for science.

Phase II - In-the-Field Evaluation - Reel II only

Evaluation Site: SPM

Grade Level: 8, 9

Teacher Ratings:

Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

NATURE IN HOKKAIDO

16mm, 30 minutes, color, English narration

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan

Date: 1965

Subject Area: Nature and Environmental Studies

Unit of Study: Japan

Content: Shows the many volcanic mountains, lakes, flora and fauna of Hokkaido. Glimpses, briefly, the insects, small and large animals, and the many beautiful flowers that grow there. Shows in a short sequence the natives of this area - much of which has not been touched by man.

Treatment: Illustrated lecture

Audience Level: Int., JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: ME, GK, NZ, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	4
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: This film will probably be most useful in the subject area of social studies. A guide of names, spellings, and definitions would be very helpful.

NEW WRAPPING

16mm, 19 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1964

Subject Area: Technology, Industrial

Unit of Study: Packaging

Content: Explains importance of packing to industrial processes of manufacturing and selling a product. Shows examples of packing techniques and materials. Demonstrates various tests of packaging materials and techniques, as well as new methods of packing carriers for high density transportation of freight.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: OJ, CL, RG

Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	4
Structure	5	Photo Technique	4

Overall Rating: Good

Comments: Unable to find any U.S. film presenting same material. Usable item -- use may be limited in the classroom. High interest level in evaluation; they talked about the film for some time after screening.

NON-DESTRUCTIVE INSPECTION

16mm, 26 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1963

Subject Area: Mechanical Engineering

Unit of Study: Non-destructive Testing

Content: Describes the value of X-rays, ultrasonic waves, and magnetic powder tests in the inspection of industrial products. Explains the advantages of this type of testing over destructive inspection. Demonstrates various machines and methods in carrying out these tests.

Treatment: Illustrated lecture

Audience Level: College-Undergrad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: DMD, MEK, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	ns
Structure	4	Photo Technique	3

Overall Rating: Average

Comments: Film is too technical for high school use. It is interesting; its value in American public schools may be questioned, but with English narration it may be useful for adult education or technical schools. Timely animation and drawings or examples are used to explain the concept. An added section on the Dye Penibrent process for checking defects would provide another current example.

OBSERVATION OF BOILING

16mm, 15 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan — Date 1965

Subject Area: Physics — Unit of Study: Vaporization

Content: Demonstrates and explains the phenomenon of boiling, and illustrates how temperature, pressure, and different molecular structures influence boiling. Uses models to show the molecular activity that takes place prior to and during the boiling of a liquid. Uses slow-motion photography to show the phenomenon of boiling water.

Treatment: Factual analysis with models and demonstrations using slow-motion, time-lapse and close-up photography — Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, JT — Team Coordinator: WRV

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Film is too long; black and white photography good, but color would enhance usefulness.

Phase II - In-the-Field Evaluation:

Evaluation Site: OPI, PHI — Grade Level: 9, 10, 11, 12

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	1

ORE DEPOSITS

16mm, 22 minutes, color, Japanese narration, accompanying English printed script.

Producer: Kyoritsu Eiga Co., Ginza 8-12-15, Chuo-Ku, Tokyo, Japan — Date: 1964

Subject Area: Geology, Earth Science — Unit of Study: Minerals

Content: Describes how ore deposits were formed in the earth, and how they are located and mined. Presents examples of a variety of ores. Shows various kinds of ore mines in Japan.

Treatment: Illustrated Lecture — Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: CDC, JM, EHS — Team Coordinator: GRB

Rating of Individual Production Elements:

Content	3	Picture	2
Audience Suitability	3	Sound	ns
Structure	2	Photo Technique	2

Overall Rating: Fair

Comments: Possibly, if the geographic references were removed, the value for U.S. students might be improved. Printed English script is most difficult to follow. Use of black and white graphics in a color film is questionable. Scale not always provided on close-ups, and form sometimes poor. Attempts to cover too much; needs reorganization. Disproportionate amount of footage used on the various types of deposits, e.g., hydrothermal in comparison to sedimentary and metsmorphic. Many sequences not self-explanatory but impressionistic and need explanation. Diagrams would be useful if translated. Might be useful for a small segment of geology instruction; could be shortened to single concept length.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM, PA — Grade Level: 5

Teacher Ratings:

Overall Estimate of Film's Value	2
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	2

THE ORIGIN OF RAIN

16mm, 24 minutes, b & w, Japanese narration, accompanying printed script and audiotape cassette in English.

Producer: Kyoritsu Eiga Co., Ginza 8-12-15, Chuo-ku, Tokyo, Japan Date: 1966

Subject Area: Meteorology Unit of Study: Weather

Content: Surveys the processes which contribute to the pheonmenon of rain. Discusses the mechanics of water vaporization and condensation in the atmosphere. Explains changes of temperature due to increases and decreases of barometric pressure, and demonstrates the need for the presence of dirt particles in the atmosphere around which the droplets of moisture condense.

Treatment: Illustrated lecture Audience Level: JH, SH, College Undergrad.

Phase I Specialist Evaluation:

Evaluation Team: APM, DFG, WC Team Coordinator: FWB

Rating of Individual Production Elements:

Content.....2	Picture.....2
Audience Suitability.....3	Sound.....na
Structure.....2	Photo Technique.....2

Overall Rating: Fair

Comments: Filming in black and white is a major limitation. The use of the mercurial barometer to show a dramatic change in air pressure tends to confuse, due to the identification of this device with barometric pressure. However, the piston experiment helps explain adiabatic temperature changes. Assumes knowledge and familiarity with basic physics.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM Grade Level: 5

Teacher Ratings:

Overall Estimate of Film's Value.....2
Usefulness as a Teaching Material.....3
Appropriateness as Substitute for Experiments or Demonstrations.....5

OSCILLATION

VTR ½", Sony, 20 minutes, b & w, English narration.

Producer: NHK International, Tokyo, Japan Date: Not available

Subject Area: Physics Unit of Study: Mechanics

Content: Explains the principle of oscillation as motion obtained by projecting a uniform circular motion vertically on a plane perpendicular to the plane of motion. Shows that motion arises from the dynamic stability proportional to the distance from the center. Uses a pendulum, tracing apparatus on glass plate, ball affixed to wheel, and strobe photography to illustrate this principle.

Treatment: Illustrated lecture, with models Audience Level: SH, College Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: CB, RKH, WHE, EFN Team Coordinator: SG

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....3	Sound.....2
Structure.....3	Photo Technique.....-

Overall Rating: Fair

Comments: Good sets of experiments, but executed rather sloppily. Tries to be an encyclopedia. Makes the false assumption that the student has learned. Poor lip-sync. Inadequate editing. Lack of definition on photographic work.

PARABOLIC MOTION

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan

Date: Not available

Subject Area: Physics

Unit of Study: Mechanics

Content: Provides basic information for grasping fundamentals of parabolic motion. Depicts parabolic motion as a uniform linear motion and uniform acceleration. Utilizes lecture and experiments such as: strobe photography of falling objects, motion study films, electro-magnetic interference with a falling object, and other mechanical illustrative devices.

Treatment: Illustrated lecture, with models

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: CB, RKH, WHE, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	2	Sound	3
Structure	1	Photo Technique	3

Overall Rating: Fair

Comments: Content accurate, but nothing unique in content or method. Narration should be done by physicist who knows proper colloquialisms. Lip sync is poor and the vocabulary is difficult for high school audience.

PHENOMENON OF WETTING

16mm, 28 minutes, color, Japanese narration, accompanying English printed script.

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1969

Subject Area: Physics

Unit of Study: Wetting

Content: Discusses the importance of the wetting phenomena to mankind. Explains how inkmakers treat soot so it will mix with water. Shows what causes wetting in things like duck feathers, leaves, tires, etc.

Treatment: Factual analysis

Audience Level: Int., JH, SH, College Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, FF, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	3	Picture	5
Audience Suitability	3	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: The value of the film is limited in physics because the topics covered can usually be better presented with demonstrations in class. Some examples used may not be easily related to U. S. students' background of experience. A good introductory-type film, giving a basis for more exact considerations. The material follows a good sequence, from ancient to new uses of the same phenomenon, with the physical basis considered in between. The film does not over extend itself; it is appropriate and fitting for this type of introduction.

Phase II - In the Field Evaluation:

Evaluation Site: BNd

Grade Level: 7

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	5

PHOTOSYNTHESIS

16mm, 20 minutes, color, Japanese narration, accompanying English printed script.

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1968

Subject Area: Biology, Botany — Unit of Study: Photosynthesis

Content: Demonstrates the three conditions needed for photosynthesis: light, temperature, and carbon dioxide. Shows stomata of a leaf and explains their function. Uses microscopic view of chlorophyll and explains how it reacts to light and temperature.

Treatment: Illustrated lecture using time-lapse, close-up and photomicrographic techniques — Audience Level: SH, College-Undergrad., Grad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: DKH, LW, DB — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	3	Sound	na
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Graphic portrayal of ADP and ATP information fed into Krebs cycle is done better than in most media available.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM, EO — Grade Level: 10

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	4

PLANKTON IN SWAMPS AND LAKES

16mm, 21 minutes, color, Japanese narration, accompanying English printed script.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1963

Subject Area: Biology, Botany — Unit of Study: Limnology

Content: Informs about the structure and activities of plankton and its relations to the environment. Shows types, size, feeding, movement systems and life cycles. Relates the effects of predators and weather on plankton, as well as its effect on water.

Treatment: Illustrated lecture — Audience Level: SH, College-Undergrad., Grad., Adult-Teacher Educ., Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: CHo, PTr, VRT — Team Coordinator: VRT

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	na
Structure	5	Photo Technique	5

Overall Rating: Excellent

Comments: English narration script contains a few errors.

Phase II - In-the-Field Evaluation:

Evaluation Site: BNd — Grade Level: 12

Teacher Ratings:

Overall Estimate of Film's Value	4
Usefulness as a teaching Material	4
Appropriateness as Substitue for Experiments or Demonstrations	3

PLANTS AND THEIR EVOLUTION

16mm, 21 minutes, color, Japanese narration, with accompanying printed script and audiotape cassette in English.

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1967

Subject Area: Biology, Botany

Unite of Study: Plant Evolution

Content: Discusses the fact that most plants evolved during the Mesozoic age. Explains the theory regarding algae, mosses, fibro-vascular ferns, formation of seeds, and angiosperms. Uses photomicrography as well as regular photography to show examples of various plants.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: WNC, CDW, LW, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: The film is very well photographed. The use of the fossil records was spotty and gave incomplete story. The musical background adds much to the film. The filming of the angiosperm was extraordinary; however, more consideration might have been given to such processes such as adaptive radiation and other interactions of populations with the environment.

PLANTS OF NASU HEIGHTS

16mm, 37 minutes, color, Japanese narration, accompanying English summary

Producer: Seibutsu Eiga Kenkyujo, Marunouchi 3-3-1, Shin-Tokyo Bldg., Chiyoda-ku, Tokyo, Japan

Date: 1966

Subject Area: Biology, Botany

Unit of Study: Ecology

Content: Shows plants growing on the Nasu Heights, which are situated on the northeastern margin of the Musashino Plain of Japan. Presents vegetation during four seasons of the year, along with a botanical explanation of the plants, chiefly flowering species, with regard to their taxonomic position, distribution and ecology. Depicts witch-hazel, skunk cabbage, dog-tooth violet, Heloniopsis, Sargent's cherry, Arctic iris, Japanese primrose, and gold band lily.

Treatment: Illustrated narrative

Audience Level: JH, SH, College-Undergrad., Grad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: JCPo, RHI, JH

Team Coordinator: JCPo

Rating of Individual Production Elements:

Content.....2	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Useful for information about Japanese flora, but of limited value for students in the U.S. Would probably be useful to special interest groups such as garden clubs or in a course in plant taxonomy.

POEM OF THE YOUNG HEARTS

16mm, 55 minutes, b & w, Japanese narration, accompanying English printed script.

Producer: Hamada Production, Insgi-machi Momura 16, Minamitama-gun, Tokyo, Japan

Date: 1969

Subject Area: Health Science

Unit of Study: Handicapped Persons

Content: Tells the story of Kiyoshi Hasegawa and his desire to meet his life's goals even though blind. Explains the considered role of the blind in Japan as one of a massagist; however, Hasegawa wants a life of music. Records, over a 12-year period, the events which help him to reach his goal.

Treatment: Documentary

Audience Level: Adult Teacher Educ., Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: MW, DAZ, DWH

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....3	Picture.....2
Audience Suitability.....3	Sound.....na
Structure.....4	Photo Technique.....3

Overall Rating: Average

Comments: Outstanding example of film documentary. Maintains a high interest level. Asset to available films, provided it had an English soundtrack. Chief value is the information conveyed concerning educational process in Japan. Teacher's work with a student for six years and a blind person's antipathy for the career of masseur is noteworthy. Each professional will find this film beneficial. Language barrier makes optimum use of film difficult and less effective than if narration were in English.

POLARIZATION OF LIGHT

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: Not available

Date: Not available

Subject Area: Physics

Unit of Study: Optics

Content: Introduces the polarizing plate which allows only light waves oscillating in one plane to pass through. Shows also that a similar phenomenon occurs in light reflected at a certain angle from a reflective surface. Uses such experiments and demonstrations as double image calcite crystal, 90° polarizing plates, water tank reflection, weather symbols (polarized), and polarizing plates over TV camera lens.

Treatment: Demonstration lecture using models and animation

Audience Level: SH

Phase I - Special Evaluation:

Evaluation Team: CB, RKH, WHE, EFN

Team Coordinator: SG

Rating of Individual Production Elements:

Content.....2	Picture.....3
Audience Suitability.....1	Sound.....2
Structure.....1	Photo Technique.....3

Overall Rating: Poor

Comments: Teaching methodology is not compatible with that used in U.S; it does not challenge the student to think for himself. Lip sync is poor and distracting. Superficial, confusing treatment with discrepancies in terminology. Experiments are presently used in U.S. high school classes.

PRINCIPLE OF ALTERNATING CURRENT MOTOR

16mm, 25 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1962

Subject Area: Physics

Unit of Study: Magnetism, Induction

Content: Explains the process of conversion of electrical energy into mechanical energy through use of the magnetic field. Compares the function of a motor and a generator. Uses experiments and models for purposes of explanation.

Treatment: Illustrated lecture using models

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team; WSt, JBr.

Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Demonstrations are simple and effective. Structure of film is variable and monotonous in sections, therefore, affecting clarity of presentation.

PRINCIPLE OF METAL CUTTING FOR PRACTICE

16mm, 22 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Dentsu Motion Picture, Tsukiji 1-7-13, Chuo-ku, Tokyo, Japan

Date: 1962

Subject Area: Industrial Education

Unit of Study: Cutting Tools

Content: Illustrates effects of various methods of cutting metals. Shows, in extreme close ups, how several types of metals react to a cutting edge. Presents the effects of different cutting tools as they act on metals.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad., Adult-Teacher Educ., Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: RH, LY, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Excellent close-up photography. Color footage would probably be more effective.

PROPERTY OF GASES

Regular 8mm Technicolor cartridge, 2½ minutes, color, Japanese subtitles, accompanying English printed script

Producer: Not available

Date: Not Available

Subject Area: Chemistry

Unit of Study: Gases

Content: Shows that diffusion of gases takes place quicker than liquids. Demonstrates that the volume of gas decreases under pressure.

Treatment: Factual analysis

Audience Level: SH, College Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Japanese characters on film cause distraction. Films are already available in English which do a better job.

RADIO WAVES

16mm, 16 minutes, b & w, Japanese narration, accompanying printed script and audiotape caasette in English

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1967

Subject Area: Physics

Unit of Study: Electricity

Content: Provides a general description, with illustrations and examples of uses, of radio waves. Compares magnetic waves with electrical waves. Illustrates spark discharge and regeneration over a distance, and relates this to radio waves. Depicts long, middle, short, ultra short, and microwaves, and points out need for satellites or other relay stations.

Treatment: Illustrated lecture using animation and close-up photography

Audience Level: Int., JH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: FDS, DRG, PWB

Team Coordinator: APM

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: Film fulfills function of a classroom demonstration that is simply too involved to perform in the classroom. It utilizes techniques of illustration which the classroom teacher could probably not match. In actual classroom use, the film was well-received, especially by girls. The class would have to be familiar with basic properties of waves since the brief treatment of them in film assumes prior knowledge. Although there are similar U.S. films of higher quality and entertainment value, they are of greater length and difficult to obtain which suggests a usefulness for this film.

Phase II - In-the-Field Evaluation:

Evaluation Site: SPM, CHM, SI

Grade Level: 12

Teacher Ratings:

Overall Estimate of Film's Value	2
Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	2

RAICHO: JAPANESE PTARMIGAN

16mm, 32 minutes, color, English narration

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan

Date: 1967

Subject Area: Biology

Unit of Study: Ornithology

Content: Documents and explains the life habits of the Raicho, a Japanese ptarmigan. Shows the natural habitat on isolated mountain slopes near the summit of the Japanese Alps. Explains the nature of foraging, molting, courtship, nest-building, egg-laying, incubation, and protection of the young.

Treatment: Documentary using close-up photography

Audience Level: SH, College-Undergrad., Adult Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: KC, DRG, APM

Team Coordinator: PWB

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	3	Sound	3
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: Outstanding photography. Probably too long for maximum effectiveness with high school students or younger. Music too dramatic for topic. English narration is not helpful. There are some abrupt cuts in spring scenes, and abrupt shift from day to night to day is distracting. Excellent close-ups of courting pattern, hen brooding, etc. Could be improved if edited and cut. The film drags and the musical score makes it progress even more slowly.

RATS

16mm, 22 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1966

Subject Area: Biology

Unit of Study: Mammals

Content: Illustrates the conditions under which bear and brown rats live, breed, and thrive. Describes the physical characteristics which permit rats to gnaw holes through walls, to traverse water pipes, utility wires, and narrow ledges, as ways of gaining entry to human residences. Shows their nightly foraging through garbage and refuse. Describes the rats as undesirables, as carriers of disease, and as vicious carnivores.

Treatment: Documentary using models and close-up photography

Audience Level: Pri., Mid., Int., JH, SH, College-Undergrad., Adult-Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: RLW, DRG, WRV

Team Coordinator: PWB

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	5

Overall Rating: Average

Comments: This is not a film to be used to instruct about rats. The structure is haphazard and jumpy. It would be best used for teaching professional persons about the habits and characteristics of the rat in its wild element. With careful editing film could be cut down to a shorter presentation that would be quite worthwhile. Presently there is too much repetition of some of the content. Otherwise, production is excellent.

Phase II - In-the Field Evaluation:

Evaluation Site: PA

Grade Level: Senior High, College-Undergrad.

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	2
Appropriateness as Substitute for Experiments or Demonstrations	3

RESPIRATION: IN AIR AND WATER

16mm, 16 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1968

Subject Area: Zoology — Unit of Study: Physiology

Content: Depicts how respiration is a vital function of all animals. Shows examples of animals' dependence on respiration and the various oxygen exchange processes involved in respiration. Compares the respiration of land and sea animals.

Treatment: Illustrated lecture — Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: WBe, JWH, ES — Team Coordinator: GRB

Rating of Individual Production Elements:

Content	3	Picture	4
Audience Suitability	3	Sound	ns
Structure	4	Photo Technique	4

Overall Rating: Average

Comments: Makes references to a land crab. Most viewers are familiar only with sea crabs and will be unaware that land crabs have lungs. A few points mentioned are left unexplained which may cause confusion.

SALMON IN JAPAN

16mm, 27 minutes, color, English narration

Producer: Cinesell Japan, Inc., Akasaka 1-9-15 Minato-ku, Tokyo, Japan — Date: 1964

Subject Area: Biology — Unit of Study: Fish

Content: Portrays life cycle of a salmon, including close-up photography of female preparing her nest and laying eggs. Shows techniques of artifical spawning of salmon in Japan. Explains problems and research in this important Japanese industry.

Treatment: Documentary using close-ups — Audience Level: Mid., Int., JH, SH, College-Undergrad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: OG, JDH, DB — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	3
Audience Suitability	5	Sound	3
Structure	5	Photo Technique	5

Overall Rating: Excellent

Comments: Some of the fish culture techniques shown seem antiquated by more modern standards, especially fish feeding. Excellent photography of spawning salmon. Biological facts presented are accurate.

SCIENCE OF SILK

16mm, 19 minutes, color, English narration

Producer: Toho Cine Productions, Shintomi 2-4-12, Mitsui Bldg., Chuo-ku, Tokyo, Japan

Date: 1968

Subject Area: Engineering/Technology

Unit of Study: Textiles

Content: Tells the story of silk - from worm to finished product. Explains, scientifically, its formation and luster. Uses photomicrography to show the two filament breakdown of a silk thread.

Treatment: Documentary using animation

Audience Level: JH, SH, College-Undergrad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: WTS, MAS, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....4
Structure.....4	Photo Technique.....4

Overall Rating: Excellent

Comments: Good for fabrics and textile courses. Good backgroundfilm to be used in conjunction with lecture or other demonstrations. Limited use in biology; may have more application in home economics courses.

SECRET IN THE HIVE

16mm, 32 minutes, color, English narration and accompanying English printed script

Producer: Sakura Eiga-sha Co., Nishi-Shinjuku 1-22 1 Shinjuku-ku, Tokyo, Japan

Date: 1962

Subject Area: Biology

Unit of Study: Entomology

Content: Traces the life cycle of the bee. Reviews typical daily activities in a hive. Explains the making of the queen bee, swarming, feeding habits, and the role of each member of the hive. Relates experiments with the bees' ability to find food and method of communicating the find.

Treatment: Factual analysis using close-up photography

Audience Level: Int., JH, SH, College-Undergrad., Grad., Adult-Teacher Educ., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: RN, JS, NZe, RD

Team Coordinator: RD

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....5
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Excellent film in every respect. Content development is paced well, with special photographic techniques to present unusual view of hive life. A long film which does not overburden the audience with information, but might be edited into a shorter version. Best used as an overview or review of content.

Phase II - In-the-Field Evaluation:

Evaluation Site: FI, SPM

Grade Level: 7,8,9, Senior High

Teacher Ratings:

Overall Estimate of Film's Value	5
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	4

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SELECTED LACTOBACILLUS ACIDOPHILUS

16mm, 18 minutes, color, English narration

Producer: Tokyo Cinema Co. Inc., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan

Date: 1965

Subject Area: Biology

Unit of Study: Microbiology

Content: Shows through cinematography and time-lapse cinemicrography the action of Lactobacillus acidophilus (Shirota strain) in culture media, in tissue cultures, and in the presence of bile and pathogenic bacterial organisms.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad., Grad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: HPe, PF, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	3
Structure	4	Photo Technique	5

Overall Rating: Excellent

Comments: Photography is outstanding, close-ups and time-lapse sequences of special value. Japanese background music not universally acceptable.

SEMICONDUCTORS

16mm, 25 minutes, color, Japanese narration, accompanying English printed script

Producer: Riken Motion Picture Co., Shimbashi 4-10-1, Minato-ku, Tokyo, Japan

Date: 1969

Subject Area: Physics

Unit of Study: Solid State Electronics

Content: Explains basic functional principles and practical application of semiconductors. Discusses PN and PNP junctions and how they make rectification and amplification possible. Demonstrates practical uses of semiconductors in the form of transistors, integrated circuits, photo-electric cells and SMC and MPS diodes.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: PJH, DPL, DWH

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	5	Sound	ns
Structure	5	Photo Technique	5

Overall Rating: Excellent

Comments: Very relevant and up-to-date. English translation is satisfactory with a few minor changes; it needs review by an electronics scientist. History of development introduces subject and implications for future use. Diagrams and models are well balanced and pacing is appropriate. One of the best films of this nature seen. Excellent example of what film can do to clarify a point.

SNOW DAMAGE

16mm, 29 minutes, color, Japanese narration, accompanying English printed script

Producer: Kajima Motion Pictures Co., Akasaka 6-5-13 Minato-ku, Tokyo, Japan

Date: 1968

Subject Area: Engineering

Unit of Study: Stress

Content: Depicts several scenes of severe snow accumulation. Shows the effects of snow upon roads, power lines, buildings and other structures, as well as the general country-side in Japan. Outlines steps taken to overcome the problems which can be caused by snow.

Treatment: Illustrated lecture using time-lapse photography

Audience Level: SH, College-Undergrad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: PTr, RCB, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....ns
Structure.....4	Photo Technique.....5

Overall Rating: Fair

Comments: Difficult to evaluate effectiveness since the topic of the film does not fit into U. S. curriculum. It is well done and informative, and might be of significant interest to engineering and architectural students.

SOLAR RADIATION

16mm, 24 minutes, color and b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1966

Subject Area: Physics

Unit of Study: Astronomy

Content: Describes the process of measuring solar energy. Discusses types of solar radiation and solar phenomena, such as aurora, corona, and sunspots. Presents the equipment used to make such measurements.

Treatment: Animation, photomacrography, photomicrography, time-lapse photography

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: MD, PTa, MN

Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....3	Picture.....3
Audience Suitability.....4	Sound.....ns
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Covers too much material, but could be used as a series of short single concept films. Animation techniques are of poor quality. Evidence for motion of sun's surface not separated from effects due to rotation of a solid sphere. The "spectra" discussion does not point out the complication of absorption by the earth's atmosphere.

Phase II - In-the Field Evaluation:

Evaluation Site: SI

Grade Level: Junior High

Teacher Ratings:

Overall Estimate of Film's Value	5
Usefulness as a Teaching Material	5
Appropriateness as Substitute for Experiments or Demonstrations	4

SOLUTION (3 cartridges)

Super 8mm Technicolor cartridges, 3½ minutes each, color, silent, Japanese subtitles

Producer: Not available

Date: Not available

Subject Area: Chemistry

Unit of Study: Solutions

Content: 1. Uses model balls to show how molecules work and mix with liquid. Shows different solid substances and how they dissolve and mix in a liquid solution.
2. Shows how some materials break down and dissolve in a liquid solution and others do not.
3. Compares materials that do and do not break down in a solution.

Treatment: Illustrated lecture

Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: PHA, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Japanese subtitles make objectives hard to identify. Suitable as introductory material.

THE SPEED OF CHEMICAL REACTIONS

16mm, 25 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Chemistry

Unit of Study: Energy

Content: Shows that speed of chemical reactions can be varied by increasing the amount of oxygen present, by dividing a substance into fine particles to increase exposed atoms, and by other means of making the reacting molecules and atoms collide more often. Demonstrates that all chemical changes are simply recombinations of atoms to form new molecules.

Treatment: Illustrated lecture, with use of models and cinemicrography and time-lapse.

Audience Level: JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: MAD, RMet, JH

Team Coordinator: MG

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Excellent use of models and animation. Very good photography. Subject matter presented in an interesting and clear manner.

SPINNING A CENTURY

16mm, 28 minutes, color, Japanese narration, accompanying English printed script

Producer: Toho Cine Productions, Shintomi 2-4-12, Mitsui Bldg., Chuo-ku, Tokyo, Japan

Date: 1967

Subject Area: Engineering/Technology

Unit of Study: Textiles

Content: Traces the founding of the textile industry in Japan 100 years ago through current developments. Shows close-up views of various processes in spinning yarns. Depicts how strong, smooth yarns are obtained from cotton, including a view from inside a lapping machine. Illustrates lapping, carding, drawing-out, and spinning, as well as briefly introducing man-made fibers, and showing their mixture with natural fibers.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad., Adult-Teacher Educ., Special or Prof.

Phase I - Specialist Evaluation:

Evaluation Team: ZA, MIM, PMB

Team Coordinator: APM

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....na
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Probably the most well-accepted film of all previewed. This is one film which does show something no American films attempt. The content specialists both agreed that this was an unusual and beautiful film showing processes that they have tried to illustrate, but available American films and other aids fail to show as clearly and beautifully. Unusual scenes in the mills, in the machines, close-ups, etc., were all excellent. The introduction is somewhat weak and the very rough English translation detracts. If provided with a good English soundtrack it should be a "best seller." Probably best used with students who have previous familiarity with processes.

SPRINGTIME

16mm, 19 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Kyoritsu Eiga Co., Ginza 8-12-15, Chuo-ku, Tokyo, Japan

Date: 1965

Subject Area: Biology

Unit of Study: Ecology

Content: Portrays springtime and many activities in nature during that season. Shows moths and tadpoles, birds building nests, the changes in temperature and the sun's rays from day-to-day. Suggests activities for primary-age children, and motivates them to take inquiring action.

Treatment: Factual analysis using close-up and stop-action photography

Audience Level: Pri., Mid., Int.

Phase I - Specialist Evaluation:

Evaluation Team: LW, BJ, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....4	Sound.....ns
Structure.....3	Photo Technique.....4

Overall Rating: Good

Comments: The scene of children collecting specimens in the field was excellent. The transportation to the school and cultural glimpses were very good. The springtime ecology theme was excellent. Labelling on parts of flower anatomy was complex in explanation and concept. English soundtrack with this film would be valuable . Might prove helpful to leave some of the Japanese soundtrack so that U. S. children could hear the spoken Japanese language.

Phase II - In-the-Field Evaluation:

Evaluation Site: EO

Grade Level: 2

Teacher Ratings:

Overall Estim te of Film's Value	4
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	3

STEEL FOR PROSPERITY

16mm, 31 minutes, color, Japanese narration, accompanying Japanese printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2 Chiyoda-ku, Tokyo, Japan

Date: 1968

Subject Area: Engineering/Technology

Unit of Study: Steel processing

Content: Depicts process of manufacturing steel with modern techniques and equipment such as computers. Shows how steel is fabricated into structural materials for buildings, elevated highways, bridges, trains and ships.

Treatment: Factural Analysis

Audience Level: JH, SH, Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LGH, MSF

Team Coordinator: MSF

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: A well-planned production with excellent photography, color and editing. A vivid demonstration of the many facets of the steel industry. Film is enhanced by use of lively, modern music.

STRENGTH OF MATERIALS

16mm, 25 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1965

Subject Area: Engineering

Unit of Study: Materials Testing

Content: Demonstrates the role of science in determining the strength of materials subject to tension, compression, buckling, shearing, twisting, and bending. Discusses terms such as elastic deformation, plastic deformation, strain, elastic coefficient, Poisson's Ratio, and bending force. Uses photo-elasticity tests to show points of strain when forces are applied.

Treatment: Factual analysis using close-up photography and models

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: JEN, MEK, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Very technical for high school level. Useful for adult education and vocational training. Only touches lightly on technicalities. The point on stress concentration, as a causative factor in mechanical breakdown, is well made.

STRUCTURE AND GERMINATION OF RICE SEEDS

Regular 8mm Technicolor cartridge, 2½ minutes, color, silent, accompanying English printed script

Producer: Not available

Date: Not available

Subject Area: Biology

Unit of Study: Botany

Content: Uses time-lapse photography to show the germination and growth of rice seeds. Shows views of the rice seed, its embryo and endosperm. Depicts root and leaf growth.

Treatment: Factual analysis

Audience Level: Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: RW, PT, RW, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Fair

Comments: Film is satisfactory for illustrating specific events, but explanations about what is happening internally are lacking.

THE STRUCTURE OF FISH

16mm, 16 minutes, color, Japanese narration, accompanying printed script and audiotape cassette in English

Producer: Kyoritsu Eiga Co., Ginza 8-12-15, Chuo-ku, Tokyo, Japan

Date: 1968

Subject Area: Zoology

Unit of Study: Vertebrates

Content: Examines the physiological structure of fish. Utilizes a variety of fish to show structural variations. Ascribes structural difference as a result of evolution.

Treatment: Illustrated lecture

Audience Level: Mid., Int., JH

Phase I - Specialist Evaluation:

Evaluation Team: WBe, JWH, RHS

Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....5	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Good

Comments: Well organized and paced.

STRUCTURE OF MATERIALS

16mm, 22 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1963

Subject Area: Physics

Unit of Study: Crystallography

Content: Depicts the structure of crystals. Details the design and physical makeup of such materials. Stresses the place of crystals in solid state electronics.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: OPQ, RCB, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content.....3	Picture.....2
Audience Suitability.....1	Sound.....na
Structure.....4	Photo Technique.....4

Overall Rating: Average

Comments: Because the illustrations merely reinforce the narration, the narration must be understood clearly. The Japanese narration cannot be understood in this country and the English narration script provided was poorly done.

THE STUDY OF CRICKETS

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan

Date: 1968

Subject Area: Biology

Unit of Study: Entomology

Content: Shows life cycle of a cricket, its environment and habits. Explains how crickets make sound, what they eat, and their desire to remain in dark, shadowy places. Uses close-up photography to show differences between male and female, including scenes of the female depositing her eggs.

Treatment: Factual analysis

Audience Level: Mid., Int.

Phase I - Specialist Evaluation:

Evaluation Team: LW, DwH, MS

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....2	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Outstanding example of photographic study. Valuable as an introduction to concepts. Pacing is somewhat slow.

THE SUN AND PLANTS - PHOTO-PERIODISM

16mm, 20 minutes, color, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1969

Subject Area: Botany

Unit of Study: Plant Growth

Content: Shows, under experimental conditions, how varying the amount of light each day affects the growth and flowering of plants. Depicts how some, such as the hrysanthemum, flower under a short-light day; others, such as spinach, flower best under a long-light day. Illustrates how the flowering of Chrysanthemums is controlled in nurseries by varying the length of the light day to produce blooms at various times throughout the year. Applies same method to control growth of two different varieties of rice so that both flower at the same time thereby permitting cross-fertilization and production of new strains. Portrays the adverse effects of new highway lighting on adjacent rice crops in which growth is retarded by 24-hour illumination.

Treatment: Illustrated lecture using time-lapse photography

Audience Level: Int., JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: SR, JBr, WSt

Team Coordinator: WSt

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Excellent

Comments: Well organized and clear presentation with excellent photography. Suitable for stimulating discussion of factors affecting plant growth and development.

THINGS AND THEIR WEIGHT (3 cartridges)

Super 8mm Technicolor cartridges, 3½, 3½ and 2½ minutes, color, silent, Japanese subtitles

Producer: Not available

Date: Not available

Subject Area: Physics

Unit of Study: Weight

Content:
1. Shows that no matter how one is weighed on a scale, be it one foot, two feet, or sitting, he weighs the same. Demonstrates that when transferring weight from one scale to another, one will increase the same amount that the other will decrease.
2. Demonstrates the effect of buoyancy upon the weight of an object. Shows that a weight due to buoyancy of e liquid, increases the weight of that liquid by an equal amount.
3. Demonstrates that if a baby drinks 150 grams of milk, it will increase in weight by 150 grams.

Treatment: Illustrated lectures

Audience Level: Mid., Int., JH

Phase I - Specialist Evaluation:

Evaluation Team: LW, KH, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....3

Overall Rating: Good

THINKING IN SETS

16mm, 20 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Gakken Co., Kamiikedai 4-40-5, Ota-ku, Tokyo, Japan — Date: 1969

Subject Area: Mathematics — Unit of Study: Sets

Content: Shows through animation the important points to be learned concerning the basic mathematical concept of "sets."

Treatment: Animated presentation — Audience Level: Int., JH, Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: LPG, RTH, LCJ — Team Coordinator: LPG

Rating of Individual Production Elements:

Content.....4	Picture.....3
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: Since few films deal with concept of "sets"this is a valuable teaching tool. Labeling on diagram is needed and film requires an English sound track to be useful in U. S. schools.

Phase II - In-the-Field Evaluation:

Evaluation Site: FCV — Grade Level: 9, 10

Teacher Ratings:

Overall Estimate of Film's Value.....2
Usefulness as a Teaching Material.....1
Appropriateness as Substitute for Experiments or Demonstrations.....1

TO BUILD GIGANTIC SHIPS

16mm, 29 minutes, color, English narration

Producer: Shi Taguchi Productions Co., Nishi-Shimbashi 3-8-1, Shimbashi Bldg., Minato-ku, Tokyo, Japan — Date: 1968

Subject Area: Engineering — Unit of Study: Shipbuilding

Content: Depicts the planning, engineering, designing and construction of ships in Japan at Mitsubushi Shipyards in Nagasaki. Shows the techniques of heavy construction. Presents modular shipbuilding techniques.

Treatment: Promotion film, using models, multiple image shots, photomicrography and photomacrography — Audience Level: JH, SH, College Undergrad., Grad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: TG, DO, FS — Team Coordinator: GRB

Rating of Individual Production Elements:

Content.....5	Picture.....5
Audience Suitability.....5	Sound.....3
Structure.....5	Photo Technique.....5

Overall Rating: Excellent

Comments: Not suited for general science audience; most useful for engineering and possibly for business students. Would be of interest to a general audience.

TOKYO MOVES SKYWARDS

16mm, 35 minutes, color, English narration

Producer: Kajima Motion Pictures Co., Akasaka 6-5-13, Minato-ku, Tokyo, Japan

Date: 1967

Subject Area: Engineering

Unit of Study: Construction, Commercial

Content: Shows step-by-step planning and construction of Tokyo's first skyscraper. Portrays role of technology in developing components, including the steel beams and concrete. Discusses problems of weather and steps taken to make constructions safe and earthquake-proof.

Treatment: Factual analysis

Audience Level: JH, SH, College-Undergrad., Adult-Special or Prof., Gen.

Phase I - Specialist Evaluation:

Evaluation Team: LWa, JFG, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....5
Audience Suitability.....5	Sound.....4
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: As a training film, lacks detailed description of important problems and techniques of construction. A good film for outlining the phases of construction. Would be helpful if film had another part, containing the blueprints and designing problems of this building.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM, WM

Grade Level: 6

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....4

TORRENTIAL RAINS

16mm, 28 minutes, color, Japanese narration, accompanying English printed script

Producer: Kajima Motion Pictures Co., Akasaka 6-5-13, Minato-ku, Tokyo, Japan

Date: 1969

Subject Area: Meteorology

Unit of Study: Weather

Content: Explains how causes of torrential rains are being studied, and how methods for predicting these phenomena are being developed. Uses weather maps and models to explain how science is coping with these rains. Portrays the effects upon people of disasters caused by torrential rains, and the steps which are being taken to provide safety for mankind from this destructive force.

Treatment: Factual analysis

Audience Level: JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: KD, LW, ALT

Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Average

Comments: Did very good job showing cloud formations; however, it might be better for U.S. students if U.S. information had been used. Showed methods used in finding unknown information. Weather maps were difficult to follow.

UNDERSEA MEADOWS

16mm, 31 minutes, color, Japanese narration, accompanying English printed script

Producer: Tokyo Cinema Co., Inc., Kanda Surugadai 2-1, Chiyoda-ku, Tokyo, Japan — Date: 1967

Subject Area: Biology — Unit of Study: Marine Biology

Content: Depicts the practices and procedures of sea farming, relating to fish, molluscs, and algae. Shows conservation measures employed to increase yields.

Treatment: Documentary — Audience Level: Int., JH, SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: JCRo, RHi, JG — Team Coordinator: JCRo

Rating of Individual Production Elements:

Content.....3	Picture.....4
Audience Suitability.....3	Sound.....na
Structure.....3	Photo Technique.....4

Overall Rating: Average

Comments: An informative presentation with considerable human interest value. Contains material not readily available in U. S. films.

Phase II - In-the-Field Evaluation:

Evaluation Site: EMd — Grade Level: 11, 12

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....3

WAVE

16mm, 22 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1967

Subject Area: Physics — Unit of Study: Wave Motion

Content: Explains theory of waves as a force applied on a certain part of a body with the movement transferred to the other parts of the body. Discusses terms such as transverse, longitudinal, compressional, the principle of Fiohence, diffraction, and interference. Demonstrates wave theory in sound, light, and physical waves, such as in water.

Treatment: Illustrated lecture — Audience Level: SH, College-Undergrad., Adult-Teacher Educ.

Phase I - Specialist Evaluation:

Evaluation Team: JB, WT, DB — Team Coordinator: EJE

Rating of Individual Production Elements:

Content.....4	Picture.....4
Audience Suitability.....4	Sound.....na
Structure.....4	Photo Technique.....5

Overall Rating: Good

Comments: Film quality is normal for film made under these types of conditions. The film's usefulness is impaired by having covered too many topics in wave motion.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM, SPM, CI — Grade Level: 5, 7, 8, 12

Teacher Ratings:

Overall Estimate of Film's Value.....4
Usefulness as a Teaching Material.....4
Appropriateness as Substitute for Experiments or Demonstrations.....3

WAVE MOTION

VTR ½", Sony, 20 minutes, b & w, English narration

Producer: NHK International, Tokyo, Japan

Date: Not available

Subject Area: Physics

Unit of Study: Wave Motion

Content: Depicts wave theory through longitudinal and lateral waves, transmission of energy, and reflection and refraction Provides the relationship between frequencies, wavelengths and velocities. Utilizes experiments such as: weighted springs released in a series to illustrate the optical illusion of a wave and simple vibration; Chide's wave-making rod, tuning fork, projected waves from water tanks, and foreign particles added to the water to better enable the viewer to see lack of lateral movement in a wave.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: CB, RKH, WHE

Team Coordinator: SG

Rating of Individual Production Elements:

Content	3	Picture	3
Audience Suitability	3	Sound	2
Structure	3	Photo Technique	3

Overall Rating: Fair

Comments by reviewers: "Too many things too fast, without requiring student involvement. Narrator tells all." "Attempts to cover too much material. Results are told first, then demonstrated." "Discrepancy in use of terms. Diffraction should be explained in terms of interference." "Poor lip-sync; conflict in methodology; preponderance of lecture."

WEATHER FORECASTING FOR TOMORROW

16mm, 33 minutes, color, English narration

Producer: Cinesell Japan, Inc., Akasaka 1-9-15, Minato-ku, Tokyo, Japan

Date: 1969

Subject Area: Meteorology

Unit of Study: Weather

Content: Discusses importance of many people and nations cooperating so that accurate weather prediction can take place. Tells importance of weather charts, observation, locations, ships, and radar in forecasting. Shows role of automatic machinery hooked up to computers in getting out accurate reports in a minimum amount of time.

Treatment: Factual analysis

Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: JCB, RMB, DB

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	4	Sound	4
Structure	4	Photo Technique	4

Overall Rating: Good

Comments: Good film for earth science study. Informs people how weather information is taken and how computers are used in weather analysis. Does not give any facts or basic principles of science to help the viewer to understand weather.

WHALING IN THE ANTARCTIC OCEAN

16mm, 29 minutes, color, Japanese narration, accompanying English printed script

Producer: Toei Co., Kyobashi 2-8, Chuo-ku, Tokyo, Japan — Date: 1967

Subject Area: Biology — Unit of Study: Marine Mammals

Content: Portrays the Japanese whaling industry. Depicts men performing their tasks with whaling equipment and ships in the Antarctic Ocean. Discusses conservation of whales as a natural resource through international agreement.

Treatment: Documentary — Audience Level: Int., JH, SH, College-Undergrad., Adult-Gen.

Phase I - Specialist Evaluation:

Evaluation Team: TG, DO, FS — Team Coordinator: GRB

Rating of Individual Production Elements:

Content	4	Picture	5
Audience Suitability	3	Sound	na
Structure	3	Photo Technique	5

Overall Rating: Good

Comments: Good overview of whaling and conservation principles applicable to the whaling industry. An enjoyable film about a not overly important area of interest in junior high curriculum.

Phase II - In-the-Field Evaluation:

Evaluation Site: MM — Grade Level: 5

Teacher Ratings:

Overall Estimate of Film's Value	3
Usefulness as a Teaching Material	4
Appropriateness as Substitute for Experiments or Demonstrations	1

WHEN YOU MIX - SEE WHAT WILL HAPPEN

16mm, 28 minutes, color, Japanese narration, accompanying English printed script

Producer: Riken Motion Picture Co., Shimbashi 4-10-1, Minato-ku, Tokyo, Japan — Date: 1968

Subject Area: Chemistry — Unit of Study: Mixtures

Content: Shows the phenomena of mixing substances. Includes the effect of having different amounts of surface area, Brownian motion, and the Tyndall phenomenon of recognizing colloids. Discusses how some mixtures are useful and others, as in pollution, are harmful.

Treatment: Illustrated lecture — Audience Level: Mid., Int., JH, SH

Phase I - Specialist Evaluation:

Evaluation Team: PHA, LW, DWH — Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	4
Audience Suitability	2	Sound	na
Structure	3	Photo Technique	4

Overall Rating: Good

Comments: Does a good job of going from familiar to unfamiliar, general to specific. Examples are such that the film could be used in a number of course types. It gives examples which could be used as a starting point for further discussion. If modified, it might be much more valuable. Technically well done. Examples were interesting, however, it doesn't appear to have a specific direction or obvious completion. It is simply an informative experience; however, its great spread of topic and the intellectual levels for which the different content is suitable make it unsuitable for almost any audience.

X-RAY AND THE CRYSTAL

16mm, 20 minutes, b & w, Japanese narration, accompanying English printed script

Producer: Iwanami Productions, Inc., Misaki-cho 2-21-2, Chiyoda-ku, Tokyo, Japan

Date: 1964

Subject Area: Physics

Unit of Study: Crystallography

Content: Demonstrates the use of X-rays to study the internal structure of crystals. Uses film and models to show how X-rays help identify structural differences between crystals. Discusses importance of computers in calculating results of scientific findings.

Treatment: Illustrated lecture

Audience Level: SH, College-Undergrad.

Phase I - Specialist Evaluation:

Evaluation Team: RJH, DPL, DWH

Team Coordinator: EJE

Rating of Individual Production Elements:

Content	4	Picture	3
Audience Suitability	4	Sound	na
Structure	4	Photo Technique	4

Overall Rating: Average

Comments: A good background in light waves and some acquaintance with chemistry is necessary to benefit from the film. Builds on previous knowledge. If seen by a class without previous knowledge of interference, crystals, etc., the film would be difficult to follow. Special effects excellent. General photography is not so good. Explanations via models only partly successful, e.g., Brogg's Law.

YEAST

16mm, 27 minutes, color, English narration

Producer: Nihon Sangyo Eiga Center, Hirakawa-cho 2-2-13 Zenkoku Ryokan Kaikan, Chiyoda-ku, Tokyo, Japan

Date: 1963

Subject Area: Microbiology

Unit of Study: Fermentation

Content: Analyzes the properties of yeast. Informs about the use of yeast in relation to fermentation industries and human beings. Shows the process of fermentation and how the fermentation industry uses it to produce beverages.

Treatment: Illustrated lecture

Audience Level: JH, SH, College-Undergrad., Grad.

Phase I - Specialist Evaluation:

Evaluation Team: RCB, HP, VRT

Team Coordinator: VRT

Rating of Individual Production Elements:

Content	5	Picture	5
Audience Suitability	4	Sound	2
Structure	4	Photo Technique	5

Overall Rating: Good

Comments: British narration, coupled with the drop in volume at the end of sentences, is difficult to follow. Evaluators' feelings were mixed about the value of the film.

Phase II - In-the-Field Evaluation:

Evaluation Site: BeM

Grade Level: College-Undergrad.

Teacher Ratings:

Usefulness as a Teaching Material	3
Appropriateness as Substitute for Experiments or Demonstrations	3

AMERICAN SCIENCE FILM ASSOCIATION
United States - Japan Science Film Exchange Project

FILM EVALUATION FORM*

1. Film Title: _____. Film Number ___.
2. Broad Subject or Content Area Classification (e.g. Biology) _____.
3. Specific Unit of Study within Subject Area (e.g. Ecology, and/or Animal habits) _____
_____.
4. Purpose (Complete by *writing* one or more purposes for this film. Also, *rate* by number how effectively the film achieves the stated purpose.)

	(Circle One) Low High
a) To inform (e.g. facts and understandings of basic principles, etc.) _____	1 2 3 4 5
b) To change or persuade (e.g. appreciations, attitudes, etc.) _____	1 2 3 4 5
c) To teach how to (e.g. skills, critical thinking, etc.) _____	1 2 3 4 5
d) Other . . . _____	1 2 3 4 5

5. Basic Utilization (Complete by rating how effective the film would be for *each* of the specified utilizations below)

	Low High
a) To introduce topic	1 2 3 4 5
b) To develop central ideas of topic	1 2 3 4 5
c) To summarize or conclude topic	1 2 3 4 5
d) To explain small segments of a topic	1 2 3 4 5

6. Recommended Audience Levels (*Check all* appropriate levels and *circle the most* appropriate)

Pre ___, Pri ___, Mid ___, Int ___, JH ___, SH ___, Col - Undergrad ___, Col - Grad ___,
Adult - Teacher Educ ___, Adult - Special or Professional ___, Adult - General _____.

	Low High
7. Content (e.g. is accurate, important, useful, up-to-date, etc.) . .	1 2 3 4 5
8. Audience Suitability (e.g. meets the needs and interests of intended group, is appropriate in length, vocabulary, pacing) . .	1 2 3 4 5
9. Structure (e.g. has organization, editing, continuity, length, etc).	1 2 3 4 5
10. Picture Quality (e.g. has clarity, appropriate visuals, framing, color, etc.)	1 2 3 4 5
11. Sound Quality (e.g. audibility, background music, and effects; *consider voice fidelity, lip sync., etc., only if in English*) . .	1 2 3 4 5
12. Effectiveness of the photographic techniques employed (*list* technique used - e.g. time lapse, high speed, close-up, microphotography, models, animation, color, etc., and *rate* its effectiveness) Photo Technique(s) _____	1 2 3 4 5
_____	1 2 3 4 5
_____	1 2 3 4 5

13. If any of the above items, 6 through 12, have been rated by circling a "1" or "2" please indicate the degee to which the film's usefulness has been impaired by circling the appropriate word or phrase below:

a) not at all; b) only slightly; c) significantly; d) seriously.

* Developed by:
Ed Newren, October, 1969

(OVER)

14. Treatment (briefly describe the method used in treating the content - e.g. cartoon style, dramatization, factual analysis, illustrated lecture, documentary, etc.)

15. Narration - *if in Japanese:*

	Rating (Low 1 2 3 4 5 High)
How useful is film without English narration?	1 2 3 4 5
How beneficial is accompanying printed or recorded English script?	1 2 3 4 5
Considering this film's usefulness to science teachers, indicate, in your opinion, the value of reproducing this film with an English sound track	1 2 3 4 5

16. Overall Estimate of Film's Value (if narration is in Japanese, include in your consideration the value of the accompanying printed or recorded English script which would need to be used instead of the Japanese narration) 1 2 3 4 5

17. Evaluator's Comments (please refer to and *cite specific examples* from within the film - include omission(s) of information normally covered in the scope undertaken by this film, errors in content, existence of bias, lack of balance, outstanding strength(s) and limitation(s), etc.)

18. Specific Reactions by Science Teacher (*rate* the following general statements concerning the film and its applicability to your teaching situation)

a) Usefulness as a teaching material	1 2 3 4 5
b) Appropriateness of length	1 2 3 4 5
c) Appropriateness of content to the unit within the curriculum where the film would be most useful (i.e. curriculum oriented)	1 2 3 4 5
d) Appropriateness for use in class (*circle one of the following--* to replace; to supplement) materials produced for the same purpose which are available and of which you are aware	1 2 3 4 5
If possible, please specify title(s), producer, and type (e.g. 16mm film, filmstrip, etc.) of material.	
e) Appropriateness of the difficulty level regarding the content and/or concept(s) in relation to the intended audience	1 2 3 4 5
f) Usefulness as an instructional tool as verified by observed student behavior	1 2 3 4 5
g) Appropriateness as a substitute for experiments or demonstrations.	1 2 3 4 5

h) Practicability (i.e. in close touch with students' life, experience, and interests) 1 2 3 4 5

i) Appropriateness for expanding and enriching students' sphere of experience 1 2 3 4 5

j) Rating, if applicable, of film's value in a teaching situation based on follow-up activity (e.g. performance test and/or individual interview with students, etc.) 1 2 3 4 5

If possible, please provide a copy of test used or a brief description of the particular follow-up procedure used.

k) Suggested utilization--methods for integrating into science teaching (e.g. independent study, motivate class discussion, use as example for duplicating an experiment, etc.)

19. Students' Reactions--For use with students in science classes, science clubs, or special science interest groups, etc.

(Please ask the following questions and tally the responses. Do not permit students to respond more than once to each question. The tally may be handled in any manner convenient for you--e.g. merely request a show of hands)

a) Which word or group of words best expresses how you feel about this question... the film presented the content and/or concepts in such a way that understanding was facilitated . . .

EXTREMELY WELL	Number of boys _____ ;	Number of girls _____
PARTIALLY	Number of boys _____	Number of girls _____
HARDLY AT ALL	Number of boys _____	Number of girls _____

b) Which word or group of words best expresses how you feel the film integrated with what you were, or had, studied . . .

EXTREMELY WELL	Number of boys _____ ;	Number of girls _____
PARTIALLY	Number of boys _____ ;	Number of girls _____
HARDLY AT ALL	Number of boys _____ ;	Number of girls _____

c) The word or group of words which best expresses the level of the subject matter covered in this film is . . .

DIFFICULT	Number of boys _____ ;	Number of girls _____
ORDINARY	Number of boys _____ ;	Number of girls _____
EASY	Number of boys _____ ;	Number of girls _____

d) The word or group of words which best expresses how the film captured and held your interest is . . . .

EXTREMELY WELL	Number of boys _____ ;	Number of girls _____
PARTIALLY	Number of boys _____ ;	Number of girls _____
HARDLY AT ALL	Number of boys _____ ;	Number of girls _____

e) Which word or group of words best expresses how you feel your understanding and outlook (philosophy) toward the topic of this film was expanded and/or enriched . .

GREATLY	Number of boys _____ ;	Number of girls _____
PARTIALLY	Number of boys _____ ;	Number of girls _____
HARDLY AT ALL	Number of boys _____ ;	Number of girls _____

f) Which word or group of words best expresses how you feel that your understanding about Japanese culture and customs has been expanded and enriched . . .

GREATLY	Number of boys _____ ;	Number of girls _____
PARTIALLY	Number of boys _____ ;	Number of girls _____
HARDLY AT ALL	Number of boys _____ ;	Number of girls _____

Grade level(s) of students in group from which above responses were tallied _____.

Total number of students in group from which above responses were tallied _____.

20. Significant student comments after viewing this film.

Evaluator's name _____.

Evaluator's Department and Major Area of Specialization (and/or Teaching)

_____.

Evaluator's School _____.

School Address _____ _____.
(Street) *(City and State)*

Date of evaluation _____.

EVALUATION TEAM COORDINATORS

APM	Al P. Mizell, Indiana University
DG	David Garloff, University of Missouri
EJE	Ernie J. Ediger, Lane Intermediate Education District, Oregon
GRB	Gerald R. Brong, Washington State University
JCRo	John C. Rosemergy, Ann Arbor Public Schools, Michigan
JDL	J. David Lockard, Science Teaching Center, University of Maryland
LPG	Leslie P. Greenhill, The Pennsylvania State University
MG	Mel Golman, Science Teaching Center, University of Maryland
MSF	Malcolm S. Ferguson, American Science Film Assn., Bethesda, Maryland
PWB	Phillip W. Bugg, Indiana University
RD	Robert Davis, University of Illinois, Chicago
SG	Stephen Geer, University of Minnesota
VRT	Vern R. Thomas, Bemidji State College, Minnesota
WRV	William R. Van Keuren, Indiana University
WSt	Warren Sturgis, Mental Health Materials Center, New York, New York

Appendix Three

EVALUATION SPECIALIST TEAM MEMBERS:
PHASE I OF EVALUATION PROCESS

ABB	A. B. Butler, Washington State University
ALT	Arnold L. Taylor, Eugene Public Schools, Oregon
APM	Al P. Mizell, Indiana University
ARM	A. R. McBirney, University of Oregon
BD	Betsy Davison, Mental Health Materials Center, New York, New York
BG	Bruce Gelvin, University of Missouri
BJ	Bonnie Jacobson, Eugene Public Schools, Oregon
BM	Bernard Metzger, University of Missouri
CB	C. Boeck, University of Minnesota
CDC	C. D. Campbell, Washington State University
CDW	C. David White, University of Oregon
CH	Charles Hall, Bemidji State College, Minnesota
CHo	Charles Holt, Bemidji State College, Minnesota
CRC	C. R. Carpenter, The Pennsylvania State University; University of Georgia
CWR	Charles W. Rutschky, The Pennsylvania State University
DAH	Daniel A. Holm, Bemidji State College, Minnesota
DAZ	Donald A. Zahler, Regional Program for the Blind, Eugene, Oregon
DB	Dan Burkhart, Lane Intermediate Education District, Oregon
DG	Dot Gelvin, University of Missouri
DGr	Donald Grayson, Mitchell High School, Indiana
DH	Darrold Hanna, Springfield High School, Oregon
DKH	D. K. Hague, University of Oregon
DMa	Dan Manien, Washington State University
DMo	Dave Mosley, Washington State University
DMy	Dennis Myers, Washington State University
DMD	D. M. Dickinson, Lane Community College, Oregon
DO	Don Orlich, Washington State University
DP	Donald Peting, University of Oregon
DPo	Donald Pochyly, University of Illinois Medical Center, Chicago
DPL	Donald P. Leslie, Eugene Public Schools, Oregon
DRG	Donald R. Garren, Mitchell High School, Indiana
DS	Dalton Seeling, Bemidji High School, Minnesota
DWH	Doyle W. Hinman, Eugene Public Schools, Oregon
EFK	Edward F. Kaminski, Science Teaching Center, University of Maryland
EFN	Edward F. Newren, University of Minnesota
EHS	Eugene H. Semingson, Washington State University
EJE	Ernie J. Ediger, Lane Intermediate Education District, Oregon
EWN	Eugene W. Nester, University of Washington

EVALUATION SPECIALIST TEAM MEMBERS (continued)

FDS	Frank D. Stekel, Wisconsin State University, Whitewater
FF	Foyle Fields, Eugene Public Schools, Oregon
FS	Frank Street, Washington State University
GB	Gloria Boyle, University of Missouri
GC	Glenn Crosby, Washington State University
GCW	George C. Washington, Jackson State College, Mississippi
GK	Gay Kampa, Cottage Grove Public Schools, Oregon
GRB	Gerald B. Brong, Washington State University
HB	Harold Bordus, Bemidji State College, Minnesota
HML	Harold M. Lynch, University of Missouri
HP	Herb Pruitt, Lane Community College, Oregon
HPe	Harold Peters, Bemidji State College, Minnesota
HRB	H. Richard Blank, University of Oregon
HW	Herbert Wisner, University of Oregon
JAG	John A. Gaughan, University of Missouri
JBr	Judith Bregman, Polytechnic Institute of Brooklyn, New York
JCB	J. C. Burg, University of Oregon
JCR	J. Christofer Reid, University of Missouri
JCRo	John C. Rosemergy, Ann Arbor Public Schools, Michigan
JDD	J. D. Decker, University of Missouri
JDH	James D. Hall, Oregon State University
JDL	J. David Lockard, Science Teaching Center, University of Maryland
JEN	J. E. Neely, Lane Community College, Oregon
JFG	J. F. Greig, Willamette High School, Oregon
JG	Jeffrey Gore, Ann Arbor Public Schools, Michigan
JH	Jullie Herman, Arundel Junior High School, Odenton, Maryland
JM	James Migaki, Washington State University
JMi	Joe Mills, Washington State University
JN	Jack Neher, Mental Health Materials Center, New York, New York
JO	Jack O'Donnell, South Eugene High School, Oregon
JS	James Scholton, University of Illinois
JT	Joan Tierney, Indiana University
JWH	James W. Hardie, Washington State University
KB	Kermit Benson, Bemidji State College, Minnesota
KC	Kathy Collier, Indiana University
KD	Ked Dejmal, Eugene Public School, Oregon
KH	Ken Howland, North Eugene High School, Oregon

EVALUATION SPECIALIST TEAM MEMBERS (continued)

LAH	Lee Ann Henning, Science Teaching Center, University of Maryland
LCJ	Lors C. Jansson, The Pennsylvania State University
LEP	L. E. Phipps, Oakridge Public Schools, Oregon
LG	Lyle Grimmer, Bemidji State College, Minnesota
LGH	Lloyd G. Herman, National Institutes of Health, Bethesda, Maryland
LM	Lesley Matson, Eugene Public Schools, Oregon
LPG	Leslie P. Greenhill, The Pennsylvania State University
LW	Lyle Wilhelmi, Eugene Public Schools, Oregon; University of Oregon
LWa	Lawrence Watt, General Contractor, Eugene, Oregon
LY	Larry Yetter, Bemidji State College, Minnesota
MAD	M. A. Dietz, Science Teaching Center, University of Maryland
MAS	Mary Ann Smith, University of Oregon
MD	Miles Dresser, Washington State University
ME	Melva Ellingson, Eugene Public Schools, Oregon
MEK	Merrill E. Kellogg, Sheldon High School, Eugene, Oregon
MFW	Mary Frank Wynn, University of Missouri
MG	Mel Golman, Science Teaching Center, University of Maryland
MLM	Mary L. Mizell, Indiana University
MP	Milo Peterson, University of Minnesota
MRM	Margaret R. Miles, University of Missouri
MS	M. Shirk, Eugene Public Schools, Oregon
MSF	Malcolm S. Ferguson, American Science Film Association, Bethesda, Maryland
MW	Marvin Wikerson, Lane Intermediate Education District, Oregon
NB	Napoleon Bryant, Jr., Indiana University
NN	Norm Nelson, Washington State University
NZ	Neil Zelie, Cottage Grove Public Schools, Oregon
NZe	Nancy Zega, University of Illinois
OG	Orval Greer, Oregon Fish Commission
OJ	Oliver Johnson, Washington State University
OL	Oscar Loreen, Washington State University
OPQ	Oren P. Quist, Bemidji State College, Minnesota
PCM	Phillip C. McGovern, Williamette High School, Oregon
PF	Patrick Frikey, Bemidji State College, Minnesota
PHA	Peter H. Andersen, University of Oregon
PL	Pierre LePere, Bemidji State College, Minnesota
PT	Phyllis Talus, South Eugene High School, Oregon
PTa	Paul Tanzer, Washington State University
PTe	Phil Teske, U. S. Office of Education, Washington, D. C.
PTr	Pat Trihy, Bemidji State College, Minnesota
PW	Pamela Wilson, Mental Health Materials Center, New York, New York
PWB	Phillip W. Bugg, Indiana University
PWW	Paul W. Welliver, The Pennsylvania State University

EVALUATION SPECIALIST TEAM MEMBERS (continued)

RCB	Robert C. Baker, Bemidji State College, Minnesota
RD	Robert Davis, University of Illinois Medical Center, Chicago
REM	R.E. Mamela, Churchill High School, Eugene, Oregon
RG	Richard Gebhardt, Washington State University
RGr	Robert Grayson, Indiana University
RH	Richard Hanys, Bemidji State College, Minnesota
RHi	Royce Hill, Huron High School, Ann Arbor, Michigan
RJH	Richard J. Higgins, University of Oregon
RJJ	Robert J. Jonas, Washington State University
RKH	R. K. Hobbie, University of Minnesota
RLW	Robert L. Winders, Indiana University
RM	Robert Marienfeld, University of Missouri
RMe	Roland Meyer, Lane Community College, Oregon
RMet	Richard Metcalf, J. F. Kennedy High School, Silver Spring, Maryland
RMi	Roland Miller, Bemidji State College, Minnesota
RMB	R. M. Barber, Churchill High School, Eugene, Oregon
RN	Robert Nelson, University of Illinois
RR	Robert Ryan, University of Missouri
RTH	Ralph T. Heimer, The Pennsylvania State University
RW	Robert Williams, South Eugene High School, Oregon
RWD	Robert W. Domese, Bemidji State College, Minnesota
SDM	Story Dever Middleton, Science Teaching Center, University of Maryland
SR	Sam Robins, Screenwriter, Brooklyn, New York
TCA	Thomas C. Arnold, State College Area High School, Pennsylvania
TG	Thomas Gornall III, Washington State University
TS	Trude Smith, Washington State University
TW	Tom Walmsley, University of Missouri
VE	Virg Erickson, Eugene Public Schools, Oregon
VM	Van Michelson, University of Minnesota
VRT	Vern R. Thomas, Bemidji State College, Minnesota
WB	William Bardwell, Washington State University
WBe	Walter Becker, Washington State University
WC	William Cuttill, Indiana University
WHE	Walter H. Erskine, University of Minnesota
WK	Walter Kilpatrick, Mental Health Materials Center, New York, New York
WNC	William N. Copeland, University of Oregon
WRV	William R. VanKeuren, Indiana University
WS	William Sheppard, Brooklyn College, City University of New York
WSt	Warren Sturgis, Mental Health Materials Center, New York, New York
WT	Wilbert Thurn, Eugene Public Schools, Oregon; University of Oregon
WTS	Walter T. Smith, University of Oregon
ZA	Zetta Anderson, Indiana University

Appendix Four

EVALUATION SITES: PHASE II OF EVALUATION PROCESS
(Public schools which provided "in-the-field" evaluations from teachers and students)

BeM	Bemidji, Minnesota
BM	Bloomington, Minnesota
BMd	Bethesda, Maryland
CHM	Columbia Heights, Minnesota
CI	Carlisle, Indiana
CPMd	College Park, Maryland
EM	Edina, Minnesota
EO	Eugene, Oregon
FCV	Falls Church, Virginia
FI	Flossmoor, Illinois
GRM	Grand Rapids, Michigan
HMBC	Half Moon Bay, California
JM	Jackson, Mississippi
MM	Minneapolis, Minnesota
OPI	Orland Park, Illinois
PA	Phoenix, Arizona
PHI	Palos Hills, Illinois
PMd	Potomac, Maryland
RM	Rochester, Minnesota
RMd	Rockville, Maryland
SI	Sullivan, Indiana
SPM	St. Paul, Minnesota
THI	Terre Haute, Indiana
WBLM	White Bear Lake, Minnesota
WM	Wayzata, Minnesota