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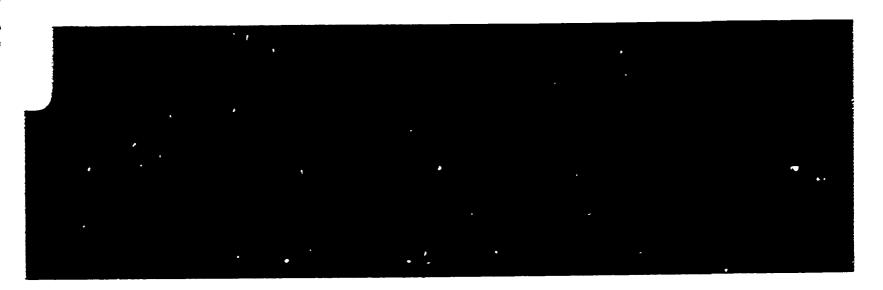
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BIBLIOGRAPHY 28

Tab	Table of Contents	
A.	Legislative Acts and Reports	1
В-	Administration and Supervision	2
c.	Science Facilities	5
D.	Author Index	10
Ε.	Unauthored Articles	11



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A. LEGISLATIVE ACTS AND REPORTS

1. SE 005 744 1 16 95 20

EARKER, ANN C.

NSF: A LITTLE HISTORY AND SOME REORGANIZATION

EXCRETAGE

DIOSCIENCE 2 2

*FINANCIAL SUPPORT, *FOUNDATION PROGRAMS, *LEGISLATIVE ACTS AND REPORTS, *SCIENTIFIC RESEARCH, PAPERS, POLICY, RESEARCH, SCIENCE HISTORY, SCIENTIFIC ORGANIZATIONS, NATIONAL SCIENCE FOUNDATION, 1968

2. SE 005 533 1 16 83 20

PAGE, H. E. LESSONS OF THE NSF SCIENCE DEVELOPMENT PROGRAM

EDUCATIONAL RECORD

66 7

*COLLEGE SCIENCE, *FEDERAL PROGRAMS, *FINANCIAL SUPPORT, *RESEARCH,
FEDERAL POLICY, NATIONAL SCIENCE FOUNDATION, EDUCATIONAL RECORD, 1966,

PEDERAL POLICY, NATIONAL SCIENCE FOUNDATION, EDUCATIONAL RECORD, 1.

NATIONAL AERONAUTICS AND SPACE ADMINISTRATION

3. SE 004 346

1 16 81 29

PILTZ, ALBERT
THE FEDERAL PROGRAMS AND THE ELEMENTARY SCIENCE TEACHER
SCIENCE AND CHILDREN
03 00 68 3
*ELEMENTARY SCHOOL SCIENCE *FEDERAL PROGRAMS, *PROGRAM DESCRIPTIONS,
SCIENCE TEACHERS, EDUCATIONAL RESEARCH, EDUCATIONAL INNOVATION, LEGIS
ACTS, SCIENCE COURSE IMPROVEMENT PROJECT, SCIENCE EQUIPMENT, SCIENCE

*ELEMENTARY SCHOOL SCIENCE *FEDERAL PROGRAMS, *PROGRAM DESCRIPTIONS,
SCIENCE TEACHERS, EDUCATIONAL RESEARCH, EDUCATIONAL INNOVATION, LEGISLATIVE
ACTS, SCIENCE COURSE IMPROVEMENT PROJECT, SCIENCE EQUIPMENT, SCIENCE
FACILITIES, SCIENCE MATERIALS, TEACHER EDUCATION, NATIONAL DEFENSE EDUCATION
ACT, ELEMENTARY AND SECONDARY EDUCATION ACT, NATIONAL SCIENCE FOUNDATION

4. SE 004 994 3 01 95 03
SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 8,
LEGISLATIVE ACTS AND REPORTS, ADMINISTRATION AND SUPERVISION, SCIENCE FACILITIES
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS

ED 021 766 MF \$0.25 HC \$0.80

14

05 00 68

*ADMINISTRATION, *BIBLIOGRAPHIES, *LEGISLATION, *SCIENCE FACILITIES,
*SUPERVISION, ASTRONOMY, BIOLOGICAL SCIENCES, COLLEGE SCIENCE, CONSERVATION
EDUCATION, CHEMISTRY, CURRICULUM, DOCTORAL THESES, ELEMENTARY SCHOOL SCIENCE,
EARTH SCIENCE, FEDERAL AID, FEDERAL PROGRAMS, GENERAL SCIENCE, INSTRUCTIONAL
MATERIALS, MATHEMATICS EDUCATION, OUTDOOR EDUCATION, SECONDARY SCHOOL SCIENCE,
NATIONAL DEFENSE EDUCATION ACT, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE III,
PUBLIC LAW 89-10



B. ADMINISTRATION AND SUPERVISION

1. SE 004 381 1 01 58 15

BERKHEIMER, GLENN D.

THE SCIENCE SUPERVISOR AND THE UTILIZATION OF CURRICULUM MATERIALS JOURNAL OF RESEARCH IN SCIENCE TEACHING

68 8

*ELEMENTARY SCHOOL SCIENCE, *SECONDARY SCHOOL SCIENCE, *SCIENCE SUPERVISION, *SUPERVISORS, *OPINIONS, COMPARATIVE ANALYSIS, INSTRUCTIONAL MATERIALS, RESEARCH REPORTS, SCIENCE TEACHERS, SUPERVISORY ROLE, NATIONAL SCIENCE FOUNDATION

2. SE 004 580 1 01 09 20

COLEMAN, JAMES S.

RESPONSIBILITY OF SCHOOLS IN THE PROVISION OF EQUAL EDUCATIONAL OPPORTUNITY (PAPER DELIVERED AT NATIONAL ASSOCIATION OF SECONDARY SCHOOL PRINCIPALS CONFERENCE, 2-12-68, ATLANTIC CITY)

JOHNS HOPKINS UNIVERSITY, CENTER FOR THE STUDY OF SOCIAL ORGANIZATION OF SCHOOLS, BALTIMORE, MARYLAND

02 do 68 17

*DISCRIMINATORY ATTITUDES (SOCIAL), *EDUCATIONAL OPPORTUNITIES, *EDUCATIONAL EQUALITY, ACHIEVEMENT, ARITHMETIC, CURRICULUM, LOW ABILITY STUDENTS, SCHOOL ATTITUDES

3. SE 004 433 3 01 86 22

EISS, ALBERT

THE USE OF EDUCATIONAL TECHNOLOGY IN PROVIDING KNOWLEDGE OF EDUCATIONAL TECHNOLOGY AND SUGGESTIONS FOR ITS APPLICATION TO SCIENCE SUPERVISORS NATIONAL SCIENCE TEACHERS ASSOCIATION, WASHINGTON, D. C. EDRS

ED 018 380 MF \$0.25 HC \$2.35

01 00 68 45

*EDUCATIONAL PROGRAMS, *INSERVICE EDUCATION, *PROGRAMED MATERIALS, *SUPERVISION, *SCIENCE SUPERVISION, BIBLIOGRAPHIES, EDUCATIONAL OBJECTIVES, EDUCATIONAL RESEARCH, INSTRUCTIONAL MATERIALS, SCHOOL INDUSTRY RELATIONSHIP, WORKSHOPS

4. SE 005 763 3 01 85 17

GOODE, JOHN MERTON

THE DEVELOPMENT OF AN INSTRUMENT TO EVALUATE CERTAIN PRACTICES IN SCIENCE SUPERVISION

THE OHIO STATE UNIVERSITY, COLUMBUS, OHIO UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

ED 025 426 NOT AVAILABLE FROM EDRS

68 142

*EVALUATION, *ELEMENTARY SCHOOL SCIENCE, *MEASUREMENT INSTRUMENTS, *SCIENCE SUPERVISION, *SUPERVISION, *SECONDARY SCHOOL SCIENCE, DOCTORAL THESES, NATIONAL SCIENCE SUPERVISORS ASSOCIATION



5. SE 004 854

3

01 81 17

GROOMS, HENRIETTA HILL

PUPIL ACHIEVEMENT AND SOCIAL DEVELOPMENT IN INTERMEDIATE GRADE DEPARTMENTAL AND SELF-CONTAINED CLASSROOMS

UNIVERSITY OF GEORGIA, ATHENS

UNIVERSITY MICROFILMS, ANN AREOR, MICHIGAN

ED 021 748

NOT AVAILABLE FROM EDRS

67 140

*ACHIEVEMENT, *SOCIAL DEVELOPMENT, *SCHOOL ORGANIZATION, ACHIEVEMENT TESTS, DOCTORAL THESES, ELEMENTARY SCHOOL SCIENCE, LANGUAGE ARTS, MATHEMATICS, SOCIAL STUDIES, SCIENCES, SELF-CONTAINED CLASSROOM, RESEARCH REPORTS, THE METROPOLITAN INTERMEDIATE ACHIEVEMENT TESTS, REAL AND IDEAL SELF-CONCEPT SCALES, MANIFEST ANXIETY SCALE, 1967

6. SE 005 093

3

01 86 17

MILLS, THOMAS J.

AMERICAN SCIENCE MANPOWER 1966, A REPORT OF THE NATIONAL REGISTER OF SCIENTIFIC AND TECHNICAL PERSONNEL

NATIONAL SCIENCE FOUNDATION, WASHINGTON, D. C.

UNITED STATES GOVERNMENT PRINTING OFFICE, WASHINGTON, D. C.

EDRS

ED 022 700 MF \$1.00 HC \$11.15

12 00 67 201

*PERSONNEL DATA, *SCIENTIFIC PERSONNEL, *SCIENTISTS, EMPLOYERS, EDUCATION, SALARIES, RESEARCH REPORTS, NATIONAL SCIENCE FOUNDATION

7. SE 005 909

1

01 86 22

MORRISETT, LLOYD N.

PERSONNEL ADMINISTRATION IN STATE EDUCATION AGENCIES IN THE YEARS AHEAD CALIFORNIA STATE DEPARTMENT OF EDUCATION

CALIFORNIA STATE DEPARTMENT OF EDUCATION, 721 CAPITOL MALL, SACRAMENTO

⁶⁸ 154

*ADMINISTRATIVE PERSONNEL, *GUIDELINES, *STATE DEPARTMENTS OF EDUCATION, ADMINISTRATION, PROGRAM DEVELOPMENT, RESEARCH REPORTS, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE V, UNITED STATES OFFICE OF EDUCATION

8. SE 604 012

1

01 23 29

WALLING, CHEVES

SEPARATION OF TEACHING AND STUDENT SUPPORT - A FACULTY FELLOWSHIP PROGRAM JOURNAL OF CHEMICAL EDUCATION

01 00 68

*ADMINISTRATION, *COLLEGE SCIENCE, *CHEMISTRY, *FACULTY FELLOWSHIPS, *GRADUATE STUDY, FELLOWSHIPS, TEACHER EDUCATION, NATIONAL SCIENCE FOUNDATION, AMERICAN CHEMICAL SOCIETY

9. SE 005 629

1

01 85 03

WHITNEY, HOWARD; PIELE, PHILIP

ANNOTATED BIBLIOGRAPHY ON YEAR-ROUND SCHOOL PROGRAMS

ERIC CLEARINGHOUSE ON EDUCATIONAL ADMINISTRATION, UNIVERSITY OF OREGON, EUGENE

*ADMINISTRATION, *ANNOTATED BIBLIOGRAPHIES. *EDUCATIONAL ADMINISTRATION, *RESOURCE MATERIALS, BIBLIOGRAPHIES, EXTENDED SCHOOL YEAR, SCHOOL

ORGANIZATION, ERIC, 1968

10. SE 005 771 1 01 03 17

YOUNG, MARVIN HOWARD
PROCESSES AND STRUCTURES FOR DECISION-MAKING IN THE SCIENCE DIVISION OF
SELECTED PUBLIC JUNIOR COLLEGES IN FLORIDA
UNIVERSITY OF FLORIDA, GAINESVILLE
UNIVERSITY MICROFILMS, ANN AMBOR, MICHIGAN

67 156
*COLLEGE ADMINISTRATION, *ADMINISTRATIVE POLICY, *ADMINISTRATIVE
ORGANIZATION, *COLLEGE SCIENCE, DOCTORAL THESES, JUNIOR COLLEGES, RESEARCH
REPORTS, FLORIDA

11. SE 004 060 3 01 83 17

YULO, RALPH JAMES
AN EXPLORATION OF THE FLANDERS SYSTEM OF INTERACTION ANALYSIS AS A
SUPERVISORY DEVICE WITH SCIENCE INTERNS
HARVARD UNIVERSITY, CAMBRIDGE, MASSACHUSETTS
UNIVERSITY MICROFILMS, ANN AREOR, MICHIGAN
ED 023 574 NOT AVAILABLE FROM EDRS

*INTERACTION PROCESS ANALYSIS, *STUDENT TEACHING, *TEACHER EDUCATION,
*SCIENCE EDUCATION, DOCTORAL THESES, EVALUATION, SELF EVALUATION, SUPERVISORY
*ETHODS, SUPERVISION, VERBAL COMMUNICATION, HARVARD UNIVERSITY, FLANDERS
SYSTEM OF INTERACTION ANALYSIS, 1967

12. SE 004 994

3 01 95 03

SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 8,

LEGISLATIVE ACTS AND REPORTS, ADMINISTRATION AND SUPERVISION, SCIENCE

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C. SCIENCE FACILITIES

1. SE G05 052 1 05 33 32
ADVISORY COUNCIL ON COLLEGE CHEMISTRY
NEWSLETTER NUMBER 10
ADVISORY COUNCIL ON COLLEGE CHEMISTRY STANFORD HIMINE

ADVISORY COUNCIL ON COLLEGE CHEMISTRY, STANFORD UNIVERSITY, CALIFORNIA
08 00 67 8

*AUDIOVISUAL AIDS, *COLLEGE SCIENCE, *CHEMISTRY, *INSTRUCTION, AUDIOTUTORIAL
SYSTEMS, COMMUNITY COLLEGES, EDUCATIONAL TELEVISION, EDUCATIONAL PROGRAMS,
COMPUTER ASSISTED INSTRUCTION, SCIENCE FACILITIES, NEWSLETTERS, TEACHING

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2. SE 004 017 2 05 23 20 BARNARD, W. ROBERT; AND OTHERS TEACHING AIDS - THE MODERN CHEMISTRY CLASSROOM JOURNAL OF CHEMICAL EDUCATION

01 00 68 8

*COLLEGE SCIENCE, *CHEMISTRY, *PROJECTION FACILITIES, *SCIENCE FACILITIES,
CLASSROOM DESIGN, EDUCATIONAL TELEVISION, FILMS, TELEVISION, OHIO STATE
UNIVERSITY, UNIVERSITY OF TEXAS, MONTANA STATE UNIVERSITY, KENT STATE UNIVERSITY,
DIVISION OF CHEMICAL EDUCATION SYMPOSIUM ON DEVELOPMENT OF TEACHING AIDS,
AMERICAN CHEMICAL SOCIETY

3. SE 004 623 1 05 55 29 BEAN, DON L.

THE SPACEATORIUM IN CENTRAL NEERASKA, IMPROVEMENT OF ASTR' .. GMY-SPACE SCIENCE INSTRUCTION

W. J. ARRASMITH PLANETARIUM, GRAND ISLAND HIGH SCHOOL, NEBRASKA

*ASTRONOMY, *ELEMENTARY SCHOOL SCIENCE, *SECONDARY SCHOOL SCIENCE, *SCIENCE FACILITIES, AUDIOVISUAL AIDS, EDUCATIONAL PROGRAMS, INSTRUCTIONAL MATERIALS, PHYSICAL SCIENCES, PLANETARIUMS, SPACE SCIENCE, SCIENCE EQUIPMENT, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE III

4. SE 004 813 1 05 42 29

BOCK, FREDERICK S.

A TEACHER-ORIENTED APPROACH TO PLANETARIUM INSTRUCTION SHARON JUNIOR HIGH SCHOOL, MASSACHUSETTS

*EARTH SCIENCE, *PLANETARIUM, *PROGRAM DESCRIPTIONS, *SCIENCE FACILITIES, *SECONDARY SCHOOL SCIENCE, ASTRONOMY, ART, ELEMENTARY SCHOOL SCIENCE, GEOGRAPHY, GEOMETRY, SPACE SCIENCES, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE III



5. SE 005 468

1

05 85 17

COHAN, PETER H.

DETERMINING THE STATUS OF SCIENCE EDUCATION PROGRAMS FOR A REGIONAL CENTER JOURNAL OF RESEARCH IN SCIENCE TEACHING

*CURRICULUM, *EDUCATIONAL PROGRAMS, *PROGRAM EVALUATION, *SCIENCE PROGRAMS, *SCIENCE FACILITIES, ELEMENTARY SCHOOL SCIENCE, RESEARCH REPORTS, REGIONAL SURVEYS, SECONDARY SCHOOL SCIENCE, 1967

6. SE 005 618

1

05 95 29

HAYNES, ROBERT C.

THE POWER OF IDEAS - A REPORT ABOUT A COMMUNITY MATHEMATICS-SCIENCE CENTER THE SCIENCE TEACHER

10 00 68

*EDUCATIONAL PROGRAMS, *MATHEMATICS, *NATURAL SCIENCES, *PROGRAM DESCRIPTIONS, *SUPPLEMENTARY EDUCATIONAL CENTERS, ENRICHMENT PROGRAMS, GENERAL EDUCATION, INSERVICE EDUCATION, INFORMATION DISSEMINATION, TEACHER EDUCATION, RICHMOND, VIRGINIA, ELEMENTARY AND SECONDARY EDUCATION ACT, 1968

7. SE 005 130

05 81 17

HELDMAN, LAWRENCE

PLANNING ELEMENTARY SCHOOL SCIENCE FACILITIES

COLUMBIA UNIVERSITY

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

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> 238 66

*ELEMENTARY SCHOOL SCIENCE, *SCIENCE FACILITIES, *SCHOOL PLANNING, *SCIENCE EQUIPMENT, DOCTORAL THESES, SCIENCE MATERIALS, 1966

8. SE 005 849

05 02 22

HELDMAN, LAWRENCE; AND OTHERS

AN INVENTORY OF THE NEEDS OF TEACHERS OF SCIENCE IN THE CATSKILL AREA SCHOOLS, PART II, GRADES 7-12

CATSKILL AREA SCHOOL STUDY COUNCIL, ONEONTA, NEW YORK

04 00 68

*PROJECT REPORTS, *SECONDARY SCHOOL SCIENCE, *SCHOOL SURVEYS, *SCIENCE TEACHERS, *SCIENCE PROGRAMS, SCIENCE FACILITIES, TEACHER CHARACTERISTICS, CATSKILL AREA SCHOOL STUDY COUNCIL, PROJECT PROBE, UNITED STATES OFFICE OF EDUCATION

9. SE 004 115

1

05 85 20

IRVING, JAMES

THE FUTURE OF SCIENCE AND ITS IMPLICATIONS FOR SCIENCE TEACHING AND FACILITIES METROPOLITAN DETROIT SCIENCE REVIEW

12 00 67

*COLLEGE SCIENCE, *ELEMENTARY SCHOOL SCIENCE, *SCIENCE FACILITIES, *SECONDARY SCHOOL SCIENCE, EDUCATIONAL PLANNING, SCHOOL ENROLLMENTS, SCIENCE EQUIPMENT,

SCIENTIFIC APPARATUS MAKERS ASSOCIATION



10. SE CO4 539

KATZ, ROBERT

PHYSICS-MATHEMATICS BUILDING AT KANSAS STATE UNIVERSITY

AMERICAN JOURNAL OF PHYSICS

01 00 65

*COLLEGE MATHEMATICS, *COLLEGE SCIENCE, *PHYSICS, *SCIENCE FACILITIES, LABORATORY FACILITIES, PHYSICAL SCIENCES, PLANETARIUM, SCIENCE LABORATORIES, SCIENCE EQUIPMENT, KANSAS STATE UNIVERSITY, MANHATTAN, KANSAS

05 33 29

11. SE 005 423 3 05 95 29

KEMENY, JOHN G.; KURTZ, THOMAS E.

THE DARTMOUTH TIME-SHARING COMPUTING SYSTEM

EDRS

ED 024 604 MF \$0.50 HC \$3.90

06 00 67 76

*COMPUTER ASSISTED INSTRUCTION, *COMPUTERS, *HIGHER EDUCATION, *INSTRUCTION, CURRICULUM, ENGINEERING, MATHEMATICS, PSYCHOLOGY, PHYSICS, PROGRAM DESCRIPTIONS, NATIONAL SCIENCE FOUNDATION, DARTMOUTH COLLEGE

12. SE 004 320 2 05 92 17

LAUDA, BILLY GEORGE

UTILIZATION OF SECONDARY SCHOOL SITES IN FULFILLING THE OBJECTIVES OF TEACHING ART, MATHEMATICS, AND SCIENCE IN PENNSYLVANIA PITTS BURCH UNIVERSITY, PENNSYLVANIA

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

63 218

*EDUCATIONAL ORIECTIVES, *EDUCATIONAL FACILITIES, *OUTDOOR EDUCATION, ART EDUCATION, BIOLOGY TEACHERS, DOCTORAL THESES, INSTRUCTION, MATHEMATICS, RESEARCH REPORTS, SCIENCES, SCHOOL SIZE, TEACHER EDUCATION

13. SE 005 062 2 05 92 29

LINSKY, RONALD B.

A HANDS ON PRACTICE OF SCIENCE

ORANGE COUNTY SCHOOLS MARINE SCIENCE FLOATING LABORATORY, SANTA ANA, CALIFORNIA

*EDUCATIONAL PROGRAMS, *OCEANGLOGY, *SCIENCE FACILITIES, *SCIENCE ACTIVITIES, *SECONDARY SCHOOL SCIENCE, BIOLOGY, CURRICULUM DEVELOPMENT, EARTH SCIENCE, PROGRAM DESCRIPTIONS, ORANGE COUNTY SCHOOLS, CALIFORNIA, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE III, 1967

14. SE 005 283 1 05 11 29

MARSH, NORMAN

OUTDOOR LEARNING ON THE SCHOOL SITE

CALIFORNIA EDUCATION

05 00 66 2

*ELEMENTARY SCHOOL SCIENCE, *EDUCATIONAL PROGRAMS, *OUTDOOR EDUCATION,
*SCIENCE FACILITIES, BIOLOGY, CONSERVATION EDUCATION, NATURE CENTERS, -PROGRAM
DESCRIPTIONS, SACRAMENTO, CALIFORNIA

15. SE 004 066 3

MCDONALD, DALE E.

THE UTILIZATION OF PLANETARIA AND OBSERVATORIES IN SECONDARY SCHOOLS UNIVERSITY OF PITTEBURGH, PENNSYLVANIA

UNIVERSITY MICROFILMS, ANN AREOR, MICHIGAN

ED 023 575 NOT AVAILABLE FROM EDRS

66 222

*ADMINISTRATIVE POLICY, *EARTH SCIENCE, *PIANETARIUMS, *SECONDARY SCHOOL SCIENCE, *SCIENCE FACILITIES, ASTRONOMY, DOCTORAL THESES, EQUIPMENT UTILIZATION, RESEARCH REPORTS, 1966

05 42 17

16. SE 004 116 1 05 13 29 MCWILLIAMS, EDWARD L.

EDUCATION AT THE UNIVERSITY OF MICHIGAN BOTANICAL GARDENS

METROPOLITAN DETROIT SCIENCE REVIEW

12 00 67 2

*BOTANY, *EDUCATIONAL PROGRAMS, *PROGRAM DESCRIPTIONS, *SCIENCE FACILITIES, BIOLOGY, UNIVERSITY OF MICHIGAN

17. SE 005 746 1 05 15 20

NACE, GEORGE W.

THE AMPHIBIAN FACILITY OF THE UNIVERSITY OF MICHIGAN

BIOSCIENCE

08 00 68

*BIOLOGY, *LABORATORY GRGANISMS, *RESOURCE MATERIALS, *SCIENCE FACILITIES, AMPHIBIANS, COLLEGE SCIENCE, LABORATORY TECHNIQUES, SECONDARY SCHOOL SCIENCE

18. SE 005 959 1 05 33 33

WALZ, FRANK C.; BARTLETT, A. A.

A NEW DESIGN FOR LECTURE AUDITORIA

AMERICAN JOURNAL OF PHYSICS

11 00 63 5

*AUDITGRIUMS, *BUILDING DESIGN, *COLLEGE SCIENCE, *PHYSICS, *SCIENCE FACILITIES, UNIVERSITY OF COLCRADO, PHYSICS DEPARTMENT, 1968

19. SE 005 574 1 05 15 29

WEAVER, RICHARD L.

MANUAL FOR OUTDOOR LABORATORIES - THE DEVELOPMENT AND USE OF SCHOOLGROUNDS AS OUTDOOR LABORATORIES FOR TEACHING SCIENCE AND CONSERVATION NATIONAL ASSOCIATION OF BIOLOGY TEACHERS, WASHINGTON, D. C. INTERSTATE PRINTERS AND PUBLISHERS, DANVILLE, ILLINOIS

81

*BIOLOGY, *ECOLOGY, *OUTDOOR EDUCATION, *SCIENCE LABORATORIES, *SCIENCE FACILITIES, CONSERVATION EDUCATION, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE, FIELD TRIPS, GUIDELINES, PROGRAM PLANNING, PROGRAM DESCRIPTIONS, RESOURCE MATERIALS, SCIENCE ACTIVITIES, SECONDARY SCHOOL SCIENCE, NATIONAL ASSOCIATION OF BIOLOGY TEACHERS

20. SE GO5 O40 3 05 33 33
CHECKLISTS FOR PHYSICS BUILDINGS
AMERICAN INSTITUTE OF PHYSICS, NEW YORK, NEW YORK
ED 021 770 NOT AVAILABLE FROM EDRS
05 GO 65 24
*COLLEGE SCIENCE, *PHYSICS, *SCIENCE FACILITIES, PHYSICAL SCIENCES,
SECONDARY SCHOOL SCIENCE, AMERICAN INSTITUTE OF PHYSICS

21. SE 005 535

HIGH SCHOOL EQUIPMENT LIST

TALCOTT HOUNTAIN SCIENCE CENTER FOR STUDENT INVOLVEMENT, AVON, CONNECTICUT

04 00 68

7

*ELEMENTARY SCHOOL SCIENCE, *SECONDARY SCHOOL SCIENCE, *SUPPLEMENTARY

EDUCATION CENTERS, *SCIENCE EQUIPMENT, *SCIENCE FACILITIES, NEWSLETTERS,

STUDENT PARTICIPATION

22. SE 005 039

PHYSICS BUILDINGS TODAY. A SUPPLEMENT TO MODERN PHYSICS BUILDINGS:

DESIGN AND FUNCTION

AMERICAN INSTITUTE OF PHYSICS, NEW YORK, NEW YORK

ED 021 769

NOT AVAILABLE FROM EDRS

07 00 65

64

*COLLEGE SCIENCE, *PHYSICS, *SCIENCE FACILITIES, PHYSICAL SCIENCES,

SECONDARY SCHOOL SCIENCE, AMERICAN INSTITUTE OF PHYSICS

3

23. SE 004 994

III, PUBLIC LAW 89-10

SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 8,
LEGISLATIVE ACTS AND REPORTS, ADMINISTRATION AND SUPERVISION, SCIENCE
FACILITIES
ERIC INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION, COLUMBUS, OHIO
EDRS
ED 021 766 MF \$0.25 HC \$0.80
05 00 68 14
*ADMINISTRATION, *BIBLIOGRAPHIES, *LEGISLATION, *SCIENCE FACILITIES,
*SUPERVISION, ASTRONOMY, BIOLOGICAL SCIENCES, COLLEGE SCIENCE, CONSERVATION
EDUCATION, CHEMISTRY, CURRICULUM, DOCTORAL THESES, ELEMENTARY SCHOOL SCIENCE,
EARTH SCIENCE, FEDERAL AID, FEDERAL PROGRAMS, GENERAL SCIENCE, INSTRUCTIONAL
MATERIALS, MATHEMATICS EDUCATION, OUTDOOR EDUCATION, SECONDARY SCHOOL SCIENCE,
NATIONAL DEFENSE EDUCATION ACT, ELEMENTARY AND SECONDARY EDUCATION ACT TITLE

01 95 03

D. AUTHOR INDEX

Authors or organizations responsible for documents are listed alphabetically. The document number of each publication listed is entered after the name of the author or organization. The letter indicates the section of the bibliography and the numeral represents the document number in that section.

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E. UNAUTHORED ARTICLES

CHECKLISTS FOR PHYSICS BUILDINGS (C20)

HIGH SCHOOL EQUIPMENT LIST (C21)

PHYSICS BUILDINGS TODAY. A SUPPLEMENT TO MODERN PHYSICS BUILDINGS: DESIGN AND FUNCTION (C22)

SCIENCE EDUCATION INFORMATION REPORT, GENERAL BIBLIOGRAPHY SERIES 8, LEGISLATIVE ACTS AND REPORTS, ADMINISTRATION AND SUPERVISION, SCIENCE FACILITIES (A4, B12, C23)



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