

R E P O R T R E S U M E S

ED 015 879

SE 004 218

SCIENCE EDUCATION INFORMATION REPORT, BIBLIOGRAPHY 2, TEACHER
EDUCATION. GENERAL BIBLIOGRAPHY SERIES.

OHIO STATE UNIV., COLUMBUS, ERIC INFO. ANAL. CTR.

PUB DATE DEC 67

EDRS PRICE MF-\$0.25 HC-\$1.88 45P.

DESCRIPTORS- *BIOLOGY, *CURRICULUM DEVELOPMENT, *COLLEGE
SCIENCE, *CHEMISTRY, *EDUCATIONAL PROGRAMS, *ELEMENTARY
SCHOOL SCIENCE, *EARTH SCIENCE, *PHYSICS, *PROGRAM
DESCRIPTIONS, *PROGRAM EVALUATION, *SECONDARY SCHOOL SCIENCE,
*TEACHER EDUCATION, GRADUATE STUDY, METHODS COURSES,
MATHEMATICS EDUCATION, PHYSICAL SCIENCES, TEACHER
CERTIFICATION, TEACHER CHARACTERISTICS,

THIS IS THE SECOND IN A SERIES OF GENERAL BIBLIOGRAPHIES
WHICH ARE BEING DEVELOPED TO DISSEMINATE INFORMATION
CONCERNING DOCUMENTS ANALYZED AT THE ERIC INFORMATION
ANALYSIS CENTER FOR SCIENCE EDUCATION. REPORTED ARE OVER 120
CITATIONS TO SELECTED DOCUMENTS RELATED TO TEACHER EDUCATION
IN SCIENCE EDUCATION. THE DOCUMENTS INCLUDED REPRESENT
RESEARCH REPORTS, RESEARCH REVIEWS, CONFERENCE REPORTS,
POSITION PAPERS, TEXTBOOKS, MANUALS, SPEECHES, AND NUMEROUS
OTHER TYPES. THE CITATIONS ARE CATEGORIZED IN ALPHABETICAL
ORDER BY AUTHOR AND INDICATE THE AVAILABILITY AND THE MAJOR
IDEAS OF THE DOCUMENT. GENERAL BIBLIOGRAPHIES HAVE BEEN OR
ARE BEING PREPARED FOR OTHER SELECTED AREAS IN SCIENCE
EDUCATION. ALL BIBLIOGRAPHIES WILL BE SUPPLEMENTED
PERIODICALLY AS MORE DOCUMENTS ARE PROCESSED BY THE ERIC
INFORMATION ANALYSIS CENTER FOR SCIENCE EDUCATION. (DS)

EDU 12017



General Bibliography Series
Bibliography 2 - Teacher Education

SEIAC/SCIENCE EDUCATION INFORMATION ANALYSIS CENTER

... an information center to organize and disseminate information and materials on science education to teachers, administrators, supervisors, researchers, and the public. A joint project of The Ohio State University and the Educational Resources Information Center of USOE.

SE 004 218

SCIENCE EDUCATION INFORMATION REPORT

**General Bibliography Series
Bibliography 2 - Teacher Education**

**ERIC Information Analysis Center
for Science Education
1460 West Lane Avenue
Columbus, Ohio 43221**

December, 1967

SCIENCE EDUCATION INFORMATION REPORTS

The Science Education Information Reports are being developed to disseminate information concerning documents analyzed at the ERIC Center for Science Education. The Reports include five types of publications. General Bibliographies are being issued to announce most documents processed by the Center for Science Education. These bibliographies are categorized by topics and indicate the availability of the document and the major ideas included in the document. Special Bibliographies are being developed to announce availability of documents in selected interest areas. These bibliographies will list most significant documents that have been published in the interest area. Guides to Resource Literature for Science Teachers are bibliographies that identify references for the professional growth of teachers at all levels of science teaching. This series will include six separate publications. State-of-the-Art Reports will be issued periodically to indicate implications of research for science teaching. Research Reviews will be issued to analyze and synthesize research related to science education over a period of several years.

The Science Education Information Reports will be announced in the SEIAC Newsletter as they become available.

GENERAL BIBLIOGRAPHIES

The General Bibliographies are being developed to announce the documents acquired and processed by the ERIC Information Analysis Center for Science Education. The bibliographies will focus on general topics. This bibliography announces most documents related to the topic that were included in the first 2,000 documents processed by this Center. Supplements will be issued every six months.

USING BIBLIOGRAPHIC CITATIONS

All documents are listed by similar bibliographic citations. A sample citation is explained for your convenience. You will find it helpful to study the explanation of the sample citation before using this bibliography.

SAMPLE OF BIBLIOGRAPHIC CITATION

(1) SE 001 505 (2) 07 12 67 (3) 20 86 29 (4) 1 (5) 00 000 004
(6) KLOPFER, LEOPOLD E.
(7) THE USE OF CASE HISTORIES IN SCIENCE TEACHING
(8) SCHOOL SCIENCE AND MATHEMATICS
(9) 11 00 64 (10) 4
(11) *BIOLOGY, *CHEMISTRY, *SCIENCE HISTORY, *PHYSICS, *SCIENCE
CASE HISTORIES, *SECONDARY SCHOOL SCIENCE, *TEACHING
TECHNIQUES, PROGRAM DESCRIPTIONS

EXPLANATION OF BIBLIOGRAPHIC CITATIONS

(1) (SE 001 505)

This is the Science Education Center's identification number for the document. It serves as the name for the document and our way of locating the material.

(2) (07 12 67)

The second field contains the date the citation was typed at our Center (July 12, 1967).

(3) (20 86 29)

Field three is a code for developing bibliographies. By using this code several kinds of bibliographies can be structured by retrieval specialists or by computer programs.

(4) 1

This field indicates the level of processing of the document.
1--cataloged and indexed
2--cataloged, indexed, and annotated or abstracted
3--announced in Research in Education

(5) (00 000 004)

The source of the document has also been coded for computer search. This number identifies where the document can be obtained. It usually designates the same source as field seven.

(6) KLOPFER, LEOPOLD E.

The principle author, editor, or organization associated with the writing of the document is listed.

(7) THE USE OF CASE HISTORIES IN SCIENCE TEACHING

Title of the document.

(8) SCHOOL SCIENCE AND MATHEMATICS

This indicates the source of the document or where it was obtained by the Center.

(9) (11 00 64)

This field designates the publication date of the document, (November, 1964). The first set of two numerics represents the month; the second, the day of the month; and the third, the year. In most cases the date is obtained from the document. In a few cases, when no date of publication is on the document, the date is estimated based on the best information available in the document.

(10) 4

Field ten identifies the number of pages in the document. This document contains four pages. Use of this field will provide information concerning the size of the document.

(11) *BIOLOGY, *CHEMISTRY, *SCIENCE HISTORY, *PHYSICS, *SCIENCE CASE HISTORIES, *SECONDARY SCHOOL SCIENCE, *TEACHING TECHNIQUES, PROGRAM DESCRIPTIONS

This field provides an indication of the ideas included in the document. Each term, such as *BIOLOGY, has been selected by an information analyst because the term is important for the identification of the document. Terms marked with an asterisk represent primary ideas in the document; the other terms represent ideas of lesser importance. You can use this information to narrow the number of documents you want to review.

1. SE 001 940 08 29 67 11 86 17 2 22 000 319
ALLARDICE, DAVID AND DUNCAN, WILLIAM FRANKLIN
INTELLIGENT SELF-DIRECTION IN HIGH SCHOOL - AN ANALYSIS OF THE
EFFECTS UPON STUDENTS AND STAFF OF A PILOT STUDY AT NORTHPORT
HIGH SCHOOL
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

62 173
*ACADEMIC ACHIEVEMENT, RESEARCH REPORTS, ABLE STUDENTS, SECONDARY
SCHOOL SCIENCE, EDUCATIONAL OBJECTIVES, INDIVIDUAL INSTRUCTION,
NORTHPORT HIGH SCHOOL (NEW YORK), 1962

2. SE 000 879 09 07 67 11 12 15 2 06 00 238
ANDREWS, TED F. (EDITOR)
BSCS MATERIALS FOR PREPARATION OF IN-SERVICE TEACHERS OF BIOLOGY

BIOLOGICAL SCIENCES CURRICULUM STUDY

64 77
*BIOLOGY, *INSERVICE TEACHER EDUCATION, *SECONDARY SCHOOL SCIENCE,
*TEACHER EDUCATION, EDUCATIONAL PROGRAMS, SCIENCE WORKSHOPS,
SCIENCE INSTITUTES, SCIENCE COURSE IMPROVEMENT PROJECT, BIOLOGICAL
SCIENCES CURRICULUM STUDY, BIBLIOGRAPHIES

3. SE 000 030 09 06 67 11 86 20 3 00 000 007
ASSOCIATION FOR THE EDUCATION OF TEACHERS IN SCIENCE
GUIDELINES FOR THE DOCTORATE IN SCIENCE EDUCATION

THE SCIENCE TEACHER

10 00 66 4
*COLLEGE SCIENCE, *CURRICULUM DEVELOPMENT, *DOCTORAL DEGREES,
*GRADUATE STUDY, *SCIENCE EDUCATION, *TEACHER EDUCATION,
CURRICULUM ASSOCIATION FOR THE EDUCATION OF TEACHERS IN SCIENCE,
NATIONAL SCIENCE TEACHERS ASSOCIATION

4. SE 001 006 09 08 67 03 13 29 1 00 000 001
AYLESWORTH, THOMAS G. AND NEWSOME, RICHARD D.
BIOLOGY FOR THE ELEMENTARY TEACHER

THE AMERICAN BIOLOGY TEACHER

05 00 62 3
*BIOLOGY, *COLLEGE SCIENCE, *EDUCATIONAL PROGRAMS, *INSERVICE
EDUCATION, *PROGRAM DESCRIPTIONS, *TEACHER EDUCATION, COURSE
DESCRIPTIONS, ELEMENTARY SCHOOL SCIENCE, SCIENCE ACTIVITIES,
SCIENCE TEACHERS, MICHIGAN STATE UNIVERSITY

5. SE 000 554 06 05 67 11 95 17 2 38 000 256
BETHLEHEM AREA SCHOOL DISTRICT
TEACHER-STUDENT WORKSHOP IN NUCLEAR SCIENCE

BETHLEHEM AREA SCHOOL DISTRICT, PENNSYLVANIA

66 200
*BIOLOGY, *COLLEGE SCIENCE, *INSERVICE TEACHER EDUCATION,
*NUCLEAR SCIENCE, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
*TEACHER-STUDENT WORKSHOPS, SCIENCE ACTIVITIES, TEACHER
RESOURCE MATERIALS, *RESEARCH REPORTS, UNITED STATES OFFICE
OF EDUCATION

6. SE 001 907 11 02 67 10 12 15 2 51 000 178
BIOLOGICAL SCIENCES CURRICULUM STUDY
BIOLOGY TEACHERS HANDBOOK

JOHN WILEY AND SONS, INC.

63 585
*BIOLOGY, *INSTRUCTION, *SECONDARY SCHOOL SCIENCE, *TEACHER
SOURCEBOOKS, *TEACHING TECHNIQUES, *SCIENCE COURSES, COURSE
CONTENT, SCIENCE ACTIVITIES, SCIENCE COURSE IMPROVEMENT
PROJECT, TEACHER GUIDES, TEACHER EDUCATION, TEACHING PROCEDURES,
1963,

7. SE 000 199 07 12 67 11 12 17 1 00 000 004
BLANKENSHIP, JACOB W.
THE EFFECTIVENESS OF FOUR METHODS OF DETERMINING SCIENCE TEACHER
ATTITUDES TOWARD A NEW BIOLOGY PROGRAM

SCHOOL SCIENCE AND MATHEMATICS

12 00 66 7

*BIOLOGY, *INSERVICE TEACHER EDUCATION, *TEACHER ATTITUDES,
*TEACHER EDUCATION, ATTITUDES, INSTITUTE PROGRAMS, SECONDARY
SCHOOL SCIENCE, 1965, OKLAHOMA STATE UNIVERSITY, STILLWATER,
OKLAHOMA, BIOLOGICAL SCIENCES CURRICULUM STUDY, ATTITUDE
INVENTORY (BLANKENSHIPS)

8. SE 000 859 08 28 67 11 91 11 2 00 000 223
BLOUGH, GLENN O. AND SCHWARTZ, JULIUS
ELEMENTARY SCHOOL SCIENCE AND HOW TO TEACH IT

HOLT, RINEHART, AND WINSTON

64 655

*ELEMENTARY SCHOOL SCIENCE, *TEACHING METHODS, *TEACHER EDUCATION,
BIBLIOGRAPHIES, COMMUNITY RESOURCES, COURSE CONTENT, EDUCATIONAL
OBJECTIVES, ABLE STUDENTS, INQUIRY SKILLS, NATURAL SCIENCES,
STUDENT INTEREST, TEXTBOOKS

9. SE 001 236 06 30 67 11 95 17 2 22 000 319
BOGEN, GERALD KEITH
AN APPRAISAL OF THE TRAVELING SCIENCE DEMONSTRATION LECTURE
PROGRAM IN OREGON AND ITS EFFECTIVENESS AS AN AGENT FOR
INSERVICE EDUCATION
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

63 217

*EDUCATIONAL PROGRAMS, *INSERVICE TEACHER EDUCATION, *SECONDARY
SCHOOL SCIENCE, *TRAVELING SCIENCE TEACHERS, *TEACHER EDUCATION,
PROGRAM EVALUATION, RESEARCH REPORTS, TRAVELING SCIENCE
DEMONSTRATION PROGRAM, OREGON

10. SE 000 144 09 05 67 11 42 17 2 00 000 008
BOYER, ROBERT E.
EARTH SCIENCE GAINS MOMENTUM IN THE SECONDARY SCHOOLS

JOURNAL OF RESEARCH IN SCIENCE TEACHING

03 00 66 2
*EARTH SCIENCE, *ELEMENTARY SCHOOL SCIENCE, *ELEMENTARY SCHOOL
TEACHERS, *SECONDARY SCHOOL TEACHERS, *SECONDARY SCHOOL SCIENCE,
*TEACHER PREPARATION, CURRICULUM, EDUCATIONAL STATISTICS, RESEARCH
REPORTS, SCIENCE INSTITUTES, SCIENCE COURSE IMPROVEMENT PROJECTS,
EARTH SCIENCE CURRICULUM PROJECT

11. SE 001 318 11 17 67 11 81 17 2 22 000 319
BRANDON, JULIAN ROBERT
A STUDY OF AN EXPERIMENTAL PROGRAM FOR THE IN-SERVICE SCIENCE
EDUCATION OF ELEMENTARY SCHOOL TEACHERS

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 219
*ELEMENTARY SCHOOL SCIENCE, *INSERVICE PROGRAMS, *PROGRAM
EVALUATION, *RESEARCH REPORTS, DOCTORAL THESES, EDUCATIONAL
PROGRAMS, ELEMENTARY SCHOOL TEACHERS, INSERVICE TEACHER EDUCATION,
INSTRUCTION, SCIENCE ACTIVITIES, SECONDARY SCHOOL TEACHERS,
EDWARDS PERSONAL PREFERENCE SCHEDULE, TEACHER EDUCATION, TEACHER
CHARACTERISTICS, TEACHING PROCEDURES, 1964 MICHIGAN STATE
UNIVERSITY, NATIONAL SCIENCE FOUNDATION, THE MINNESOTA TEACHER
ATTITUDE INVENTORY, SEQUENTIAL TEST OF EDUCATION PROGRESS
(SCIENCE, FORM 1A), ELEMENTARY SCIENCE INSERVICE CONFERENCE

12. SE 000 882 08 28 67 11 92 11 2 00 000 179
BRANDWEIN, PAUL F. AND OTHERS
TEACHING HIGH SCHOOL SCIENCE - A BOOK OF METHODS

HARCOURT, BRACE AND WORLD

58 568
*CURRICULUM DEVELOPMENT, *SCIENTIFIC ENTERPRISE, *SECONDARY
SCHOOL SCIENCE, *TEACHING METHODS, *TEACHING TECHNIQUES, *TEACHER
EDUCATION, COMMUNITY RESOURCES, EDUCATIONAL OBJECTIVES, FILMS,
FILMSTRIPS, MOTIVATION, NATURAL SCIENCE, SCIENCE FACILITIES,
EVALUATION, TEACHER ATTITUDES

13. SE 000 905 06 27 67 11 81 17 1 00 000 006
BRITTAI, CLAY V. AND SPARKS, EDITHGENE
CHANGES IN TEACHING DIFFICULTIES REPORTED BY TEACHERS
COMPLETING AN INSERVICE COURSE IN SCIENCE

SCIENCE EDUCATION

03 00 65 5
*INSERVICE TEACHER EDUCATION, *TEACHER EDUCATION, *TEACHING
PROBLEMS, ELEMENTARY SCHOOL SCIENCE, RESEARCH REPORTS, READ
GENERAL SCIENCE TEST, FACTS ABOUT SCIENCE TEST

14. SE 000 809 06 27 67 11 93 29 1 00 000 008
BURKMAN, ERNEST
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT FLORIDA STATE
UNIVERSITY

JOURNAL OF RESEARCH IN SCIENCE TEACHING

01 00 65 5
*GRADUATION REQUIREMENTS, *NATURAL SCIENCES, *PRESERVICE
EDUCATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
SCIENCE ACTIVITIES, PROGRAM DESCRIPTIONS, SCIENCE METHODS
COURSES

15. SE 001 079 06 27 67 11 92 20 1 00 000 008
BURNETT, R. WILL
NEW CONCEPTS IN THE EDUCATION OF SCIENCE TEACHERS

JOURNAL OF RESEARCH IN SCIENCE TEACHING

03 00 63 5
*PROFESSIONAL EDUCATION, *TEACHER EDUCATION, CURRICULUM
DEVELOPMENT, COLLEGE SCIENCE, EDUCATIONAL PROGRAMS, PRESERVICE
EDUCATION, SCIENCE TEACHERS

16. SE 000 903 07 21 67 11 83 17 1 00 000 006
BUTTS, DAVID P.
THE RELATIONSHIP OF PROBLEM-SOLVING ABILITY AND SCIENCE
KNOWLEDGE

SCIENCE EDUCATION

03 00 65 9
*COLLEGE SCIENCE, *PROBLEM SOLVING, *SCIENTIFIC METHODOLOGY,
TEACHER EDUCATION, STEP TEST (ETS), EDUCATIONAL TESTING
SERVICE, RESEARCH REPORTS

17. SE 000 581 07 27 67 11 83 20 1 43 000 287
BUTTS, DAVID P.
WIDENING VISTA'S - IN-SERVICE EDUCATION

AUTHOR, UNIVERSITY OF TEXAS, AUSTIN

12 00 66 7
*CURRICULUM DEVELOPMENT, *CURRICULUM IMPROVEMENT, *ELEMENTARY
SCHOOL SCIENCE, *INSERVICE EDUCATION, *TEACHER EDUCATION,
SCIENTIFIC ATTITUDES, TEACHING METHODS, PAPERS, AMERICAN
ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

18. SE 001 461 11 13 67 02 86 20 1 00 000 006
BUTTS, DAVID P.
WIDENING VISTA'S - IN-SERVICE EDUCATION

SCIENCE EDUCATION

03 00 67 3
*ADOPTION (IDEAS), *CURRICULUM DEVELOPMENT, *DIFFUSION,
*INSERVICE TEACHER EDUCATION, *INNOVATION, PAPERS, TEACHER
EDUCATION

19. SE 000 888 09 07 67 11 42 20 2 00 000 006
CALDWELL, LOREN T.
SUBJECT ORGANIZATION PROPOSED FOR TEACHING RELATED FIELDS CONCEPTS
REQUIRED TO LEARN EARTH SCIENCE CONCEPTS IN THE JUNIOR HIGH SCHOOL

SCIENCE EDUCATION

02 00 66 6
*CONCEPT FORMATION, *EARTH SCIENCE, *PRESERVICE TEACHER EDUCATION,
*SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, GRADE 9, PHYSICAL
SCIENCES, PAPERS, STUDENT CHARACTERISTICS, TEACHING TECHNIQUES

20. SE 000 063 09 05 67 11 15 29 2 05 000 200
CALIFORNIA STATE DEPARTMENT OF EDUCATION
FINAL REPORT OF THE JUNIOR COLLEGE WORKSHOP IN BIOLOGY

CALIFORNIA STATE DEPARTMENT OF EDUCATION

09 00 65 63
*BIOLOGY, *COLLEGE SCIENCE, *TEACHER EDUCATION, *TEACHER
WORKSHOPS, *TEACHER RESOURCE MATERIALS, EARTH SCIENCE, INSERVICE
TEACHER EDUCATION, MARINE BIOLOGY, OCEANOGRAPHY, 1965, NATIONAL
DEFENSE EDUCATION ACT

21. SE 001 944 09 12 67 11 91 17 2 22 000 319
CHAMBERLAIN, WILLIAM DAVID
DEVELOPMENT AND STATUS OF TEACHER EDUCATION IN THE FIELD OF
SCIENCE FOR THE ELEMENTARY SCHOOL

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

55 205
*ELEMENTARY SCHOOL SCIENCE, *TEACHER EDUCATION, ASTRONOMY,
CURRICULUM DEVELOPMENT, GEOLOGY, INSERVICE EDUCATION, RESEARCH
REPORTS, SCIENCE EQUIPMENT, SCIENCE FACILITIES, TEACHER
QUALIFICATIONS, 1955

22. SE 000 171 07 19 67 11 86 17 00 000 006
CRAIG, ROBERT C.
THE SCIENCE INTERESTS OF FUTURE TEACHERS

SCIENCE EDUCATION

10 00 66 6
*PRESERVICE TEACHER EDUCATION, *SCIENCE INTERESTS, TEACHER
EDUCATION, AMERICAN INSTITUTE FOR RESEARCH, PITTSBURGH,
PENNSYLVANIA, STATE COLLEGE OF WASHINGTON, SCHOOL OF EDUCATION,
SCIENCE EDUCATION

23. SE 000 819 07 11 67 11 92 29 1 00 000 008
DICKINSON, JAMES C.
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT THE UNIVERSITY OF
IOWA

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 3
*GRADUATION REQUIREMENTS, *TEACHER EDUCATION PROGRAMS, ADMISSION
REQUIREMENTS, CERTIFICATION, PRESERVICE EDUCATION, SCIENCE
TEACHING CENTERS, SECONDARY SCHOOL SCIENCE, STUDENT TEACHING,
TEACHER QUALIFICATIONS, UNIVERSITY OF IOWA

24. SE 001 034 07 28 67 11 86 20 1 00 000 006
DUTTON, FREDERIC B.
TEACHER TRAINING PROGRAMS IN THE UNITED STATES

SCIENCE EDUCATION

03 00 66 4
*CERTIFICATION, *NATURAL SCIENCE, *SUMMER INSTITUTES, *TEACHER
EDUCATION, *TEACHER QUALIFICATIONS, PRESERVICE EDUCATION, PAPERS,
NATIONAL EDUCATION ASSOCIATION, NATIONAL ASSOCIATION OF STATE
DIRECTORS OF TEACHER EDUCATION AND CERTIFICATION, NATIONAL
COUNCIL FOR ACCREDITATION OF TEACHER EDUCATION, NATIONAL SCIENCE
FOUNDATION, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,
1962

25. SE 001 063 06 01 67 11 91 17 1 00 000 008
EATON, EDWARD J.
AN EXAMINATION OF THE DEVELOPMENT OF SCIENCE CONCENTRATIONS FOR
THE PROSPECTIVE ELEMENTARY SCHOOL TEACHER AT THE UNIVERSITY OF
TEXAS

JOURNAL OF RESEARCH IN SCIENCE TEACHING

09 00 66 3
*ELEMENTARY SCHOOL TEACHERS, *EDUCATIONAL PROGRAMS, *PRESERVICE
EDUCATION, *TEACHER EDUCATION, STUDENT CHARACTERISTICS, SCIENCE
TEACHERS, UNDERGRADUATE REQUIREMENTS, PROGRAM DESCRIPTIONS,
RESEARCH REPORTS

26. SE 000 440 07 31 67 11 83 21 1 00 000 007
ECCLES, PRISCILLA J.
WHAT DOES A TEACHER NEED TO KNOW?

THE SCIENCE TEACHER

04 00 64 1
*TEACHER EDUCATION, *TEACHER QUALIFICATIONS, *TEACHER EVALUATION,
INSERVICE EDUCATION, NATIONAL SCIENCE FOUNDATION INSTITUTES

27. SE 001 946 09 12 67 11 91 17 2 22 000 319
ECCLES, PRISCILLA JACOBS
AN EVALUATION OF A COURSE IN TEACHING SCIENCE IN THE ELEMENTARY
SCHOOL

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

58 245
*COURSE CONTENT, *TEACHER EDUCATION, *SCIENCE METHODS COURSES,
ACHIEVEMENT, ELEMENTARY SCHOOL SCIENCE, EVALUATION, PRESERVICE
TEACHERS, RESEARCH REPORTS, TEACHER QUALIFICATIONS, TESTING,
COLLEGE OF EDUCATION, UNIVERSITY OF ILLINOIS, 1957

28. SE 000 856 12 18 67 11 95 17 2 35 000 222
EDUCATIONAL TESTING CONSULTANTS
A FOLLOW-UP STUDY OF MEMBERS OF THE FIRST ACADEMIC YEAR INSTITUTE
AT THE OHIO STATE UNIVERSITY 1957-58

EDUCATIONAL TESTING CONSULTANTS, OHIO STATE UNIVERSITY,
COLUMBUS

03 00 60 20
*COLLEGE SCIENCE, *EVALUATION, *SCIENCE TEACHERS, *SCIENCE
INSTITUTES, *TEACHER EDUCATION, *SECONDARY SCHOOL TEACHERS,
ACADEMIC YEAR INSTITUTES, BIOLOGY, EDUCATIONAL PROGRAMS,
MATHEMATICS EDUCATION, PROGRAM EFFECTIVENESS, PHYSICAL SCIENCE,
RESEARCH REPORTS, SECONDARY SCHOOL SCIENCE, 1957, 1958, 1960,
BUREAU OF EDUCATIONAL RESEARCH AND SERVICE (OHIO STATE UNIVERSITY),
OHIO STATE UNIVERSITY, COLUMBUS, OHIO

29. SE 000 853 12 18 67 11 95 17 2 35 000 222
EDUCATIONAL TESTING CONSULTANTS
A FOLLOW-UP STUDY OF MEMBERS OF THE SECOND ACADEMIC YEAR
INSTITUTE AT THE OHIO STATE UNIVERSITY, 1958-59

EDUCATIONAL TESTING CONSULTANTS, OHIO STATE UNIVERSITY,
COLUMBUS

04 00 61 20

*COLLEGE SCIENCE, *EVALUATION, *SCIENCE TEACHERS, *SCIENCE
INSTITUTES, *TEACHER EDUCATION, *SECONDARY SCHOOL TEACHERS,
ACADEMIC YEAR INSTITUTES, BIOLOGY, EDUCATIONAL PROGRAMS,
MATHEMATICS EDUCATION, PROGRAM EFFECTIVENESS, PHYSICAL SCIENCES,
RESEARCH REPORTS, SECONDARY SCHOOL SCIENCE, 1958, 1959, 1961,
THE OHIO STATE UNIVERSITY, COLUMBUS, OHIO, EDUCATIONAL TESTING
CONSULTANTS (COLUMBUS, OHIO)

30. SE 000 852 12 18 67 11 93 17 2 35 000 222
EDUCATIONAL TESTING CONSULTANTS
THE FOURTH ACADEMIC YEAR INSTITUTE AT THE OHIO STATE
UNIVERSITY - AN EVALUATION REPORT 1960-1961

EDUCATIONAL TESTING CONSULTANTS, OHIO STATE UNIVERSITY,
COLUMBUS

08 00 61 38

*COLLEGE SCIENCE, *EVALUATION, *RESEARCH REPORTS, *SCIENCE
INSTITUTES, *TEACHER EDUCATION, ACADEMIC YEAR INSTITUTES,
EDUCATIONAL PROGRAMS, MATHEMATICS TEACHERS MATHEMATICS EDUCATION,
SCIENCE TEACHERS, SCIENCE EDUCATION, NATIONAL SCIENCE FOUNDATION,
1960, 1961, SEQUENTIAL TESTS OF EDUCATIONAL PROGRESS, MINNESOTA
TEACHER ATTITUDE INVENTORY, THE OHIO STATE UNIVERSITY

31. SE 000 857 12 18 67 11 93 17 2 35 000 222
EDUCATIONAL TESTING CONSULTANTS
THE SECOND ACADEMIC YEAR INSTITUTE AT THE OHIO STATE UNIVERSITY
1958-59

EDUCATIONAL TESTING CONSULTANTS, OHIO STATE UNIVERSITY,
COLUMBUS

09 00 59 50

*COLLEGE SCIENCE, *EVALUATION, *RESEARCH REPORTS, *SCIENCE
INSTITUTES, *TEACHER EDUCATION, ACADEMIC YEAR INSTITUTES, MILLER
ANALOGIES TEST, MATHEMATICS TEACHERS, MATHEMATICS EDUCATION,
SCIENCE TEACHERS, SCIENCE EDUCATION, 1958, 1959, SEQUENTIAL TEST
OF EDUCATIONAL PROGRESS, EDUCATIONAL PROGRAMS

32. SE 001 267 08 28 67 11 55 17 2 22 000 319
FARHAN, ISHAQ AHMAD
GUIDELINES FOR DESIGNING A CURRICULUM FOR THE PRESERVICE
EDUCATION OF SECONDARY SCHOOL PHYSICAL SCIENCE TEACHERS IN
JORDAN
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 345
*COLLEGE SCIENCE, *INTERNATIONAL EDUCATION, *PRESERVICE EDUCATION,
*TEACHER EDUCATION, CURRICULUM DEVELOPMENT, GENERAL EDUCATION,
PHYSICAL SCIENCES, RESEARCH REPORTS, SECONDARY SCHOOL SCIENCE,
UNITED NATIONS EDUCATION, SCIENTIFIC AND CULTURAL ORGANIZATION,
JORDAN, 1964

33. SE 001 005 08 16 67 11 12 17 1 00 000 001
FERGUSON, MAX BURTON
A CURRICULUM FOR TRAINING HIGH SCHOOL BIOLOGY TEACHERS WHICH
ADMINISTRATORS OF TEACHER TRAINING INSTITUTIONS WILL SUPPORT

THE AMERICAN BIOLOGY TEACHER

05 00 62 2
*BIOLOGY, *CURRICULUM, *PRESERVICE EDUCATION, *TEACHER EDUCATION,
COURSE REQUIREMENTS, COLLEGE SCIENCE, SECONDARY SCHOOL SCIENCE,
IOWA, MINNESOTA, MISSOURI, ILLINOIS, WISCONSIN, MICHIGAN, INDIANA,
RESEARCH REPORTS

34. SE 001 004 07 14 67 11 13 29 1 00 000 001
FERGUSON, MAX BURTON
REQUIRED COURSES IN BIOLOGY AT TEACHER TRAINING INSTITUTIONS

THE AMERICAN BIOLOGY TEACHER

05 00 62 4
*BIOLOGY, *COLLEGE SCIENCE, *PRESERVICE EDUCATION, *TEACHER
EDUCATION, CURRICULUM, COURSE REQUIREMENTS, PROGRAM DESCRIPTIONS

35. SE 000 799 06 23 67 11 86 17 1 00 000 008
 FISCHLER, ABRAHAM AND ANASTASIOU, NICHOLAS J.
 IN-SERVICE EDUCATION IN SCIENCE (A PILOT) THE "SCHOOL WITHIN
 A SCHOOL"
 JOURNAL OF RESEARCH IN SCIENCE TEACHING
 12 00 65 6
 *ELEMENTARY SCHOOL SCIENCE, *INTERACTION ANALYSIS, *TEACHER
 EVALUATION, INSERVICE TEACHER EDUCATION, SCIENCE CURRICULUM
 IMPROVEMENT STUDY, FLANDERS SYSTEM, RESEARCH REPORTS
36. SE 001 086 08 18 67 11 81 29 1 00 000 004
 FISCHLER, ABRAHAM S.
 CHANGE IN CLASSROOM BEHAVIOR RESULTING FROM AN IN-SERVICE PROGRAM
 UTILIZING TELEVISION
 SCHOOL SCIENCE AND MATHEMATICS
 04 00 67 2
 *INSERVICE TEACHER EDUCATION, *PROGRAM DESCRIPTIONS, *TEACHER
 EDUCATION, *TEACHER CHARACTERISTICS, *TEACHER BEHAVIOR, EDUCATIONAL
 PROGRAMS, EDUCATIONAL TELEVISION, VIDEO TAPES, SCIENCE
 CURRICULUM IMPROVEMENT STUDY, CARMEL PUBLIC SCHOOL SYSTEM
37. SE 000 110 08 25 67 11 81 17 2 00 000 021
 FOWLER, H. SEYMOUR
 EVALUATION OF AN INSTITUTE FOR THE TRAINING OF ELEMENTARY-SCHOOL
 SCIENCE RESOURCE TEACHERS
 JOURNAL OF EDUCATIONAL RESEARCH
 60 2
 *ELEMENTARY SCHOOL SCIENCE, *INSERVICE TEACHER EDUCATION,
 *INSTITUTE PROGRAMS, *RESEARCH REPORTS, *RESOURCE TEACHERS,
 *TEACHER EDUCATION, NATIONAL SCIENCE FOUNDATION, READ GENERAL
 SCIENCE TEST

38. SE 000 128 11 08 67 11 52 29 2 00 000 004
 FRASER, THOMAS P.
 A REASONABLE APPROACH TO A MASTER'S DEGREE PROGRAM FOR SECONDARY
 SCHOOL SCIENCE TEACHERS
 SCHOOL SCIENCE AND MATHEMATICS
 12 00 66 5
 *GRADUATE STUDY, *MASTER DEGREE PROGRAMS, *SECONDARY SCHOOL
 SCIENCE, *TEACHER EDUCATION, BIOLOGY, CHEMISTRY, EDUCATIONAL
 PROGRAMS, PROGRAM DESCRIPTIONS, PHYSICS, SCIENCE TEACHERS,
 NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING, NATIONAL
 SCIENCE FOUNDATION, MORGAN STATE COLLEGE
39. SE 000 524 07 20 67 11 81 20 1 00 000 196
 GARDNER, CAROL
 THE SIGNIFICANCE OF TEACHER TRAINING IN PRODUCING AN EFFECTIVE
 ELEMENTARY SCIENCE PROGRAM
 METROPOLITAN DETROIT SCIENCE REVIEW
 12 00 66 4
 *ELEMENTARY SCHOOL SCIENCE, *TEACHER EDUCATION, INSERVICE TEACHER
 EDUCATION, PRESERVICE TEACHER EDUCATION, PAPERS
40. SE 000 820 07 03 67 11 92 29 1 00 000 008
 GAWLEY, IRWIN H.
 SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT MONTCLAIR STATE
 COLLEGE
 JOURNAL OF RESEARCH IN SCIENCE TEACHING
 06 00 65 6
 *GRADUATION REQUIREMENTS, *TEACHER EDUCATION PROGRAMS, PRESERVICE
 EDUCATION, STUDENT TEACHING, SECONDARY SCHOOL SCIENCE, STUDENT
 TEACHER SUPERVISION, TEACHER QUALIFICATIONS, PHYSICAL SCIENCE
 STUDY COMMITTEE, CHEMICAL EDUCATIONAL MATERIALS STUDY,
 BIOLOGICAL SCIENCES CURRICULUM STUDY, AMERICAN ASSOCIATION FOR
 THE ADVANCEMENT OF SCIENCE, NATIONAL ASSOCIATION OF STATE
 DIRECTORS OF TEACHER EDUCATION AND CERTIFICATION, MONTCLAIR
 STATE COLLEGE

41. SE 000 768 07 20 67 11 43 17 1 32 000 235
GEER, IRA W.
AN EXPERIMENTAL STUDY COMPARING TWO APPROACHES TO THE TEACHING
OF A SELECTED INTRODUCTORY METEOROLOGY COURSE FOR PROSPECTIVE
TEACHERS
NEW YORK STATE UNIVERSITY
BROCKPORT
02 00 67 10
*COLLEGE SCIENCE, *EARTH SCIENCE, *METEOROLOGY, *PRESERVICE
EDUCATION, *TEACHER EDUCATION, *RESEARCH REPORTS, NATIONAL
ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING

42. SE 000 590 09 07 67 11 12 20 2 00 000 199
GINSBURG, BENSON E. AND OTHERS
PREPARING THE MODERN BIOLOGY TEACHER

BIOSCIENCE

12 00 65 4
*BIOLOGY, *CURRICULUM DEVELOPMENT, *PRESERVICE TEACHER EDUCATION,
*TEACHER EDUCATION, CERTIFICATION, PAPERS, COMMISSION ON
UNDERGRADUATE EDUCATION IN THE BIOLOGICAL SCIENCES

43. SE 001 368 11 17 67 09 95 19 2 00 000 007
GLASS, H. BENTLEY
THE MOST CRITICAL ASPECT OF SCIENCE TEACHING

THE SCIENCE TEACHER

05 00 67 3
*EDUCATIONAL OBJECTIVES, *SPEECHES, *SCIENCE TEACHING, *TEACHER
EDUCATION, BIOLOGY, COLLEGE SCIENCE, ELEMENTARY SCHOOL SCIENCE,
INSERVICE TEACHER EDUCATION, NATURAL SCIENCES, SECONDARY SCHOOL
SCIENCE, NATIONAL SCIENCE TEACHERS ASSOCIATION, DETROIT, MICHIGAN,
1967

44. SE 001 443 10 11 67 11 43 17 1 00 000 197
HALL, JOHN F. AND CAIN, J. ALLAN
PAST AND PRESENT PROVENANCES AND PREDILECTIONS OF PEDAGOGICAL
PH.D'S

JOURNAL OF GEOLOGICAL EDUCATION

06 00 65 3
*COLLEGE SCIENCE, *EARTH SCIENCE, *GEOLOGY, *GEOLOGY TEACHERS,
*SCIENCE EDUCATION, *TEACHER EDUCATION, COLLEGE TEACHERS,
DOCTORAL DEGREES, GRADUATE STUDY, GRADUATE SCHOOLS, SCIENCE
MANPOWER, TEACHER PLACEMENT, TEACHER CHARACTERISTICS, AMERICAN
GEOLOGICAL INSTITUTE DIRECTORY OF GEOSCIENCE DEPARTMENTS, 1964,
WESTERN RESERVE UNIVERSITY

45. SE 001 105 12 19 67 02 85 29 1 00 000 010
HANSMAN, HOWARD J.
THE COOPERATIVE COLLEGE-SCHOOL SCIENCE PROGRAM OF THE NATIONAL
SCIENCE FOUNDATION

SCIENCE AND CHILDREN

03 00 67 2
*CURRICULUM, *ELEMENTARY SCHOOL SCIENCE, *EDUCATIONAL PROGRAMS,
MATHEMATICS EDUCATION, *PROGRAM DESCRIPTIONS, *SECONDARY SCHOOL
SCIENCE, *TEACHER EDUCATION, NATIONAL SCIENCE FOUNDATION,
COOPERATIVE COLLEGE SCHOOL SCIENCE PROGRAM

46. SE 001 846 11 20 67 11 81 17 2 22 000 319
HARDEN, HENRY NORMAN
AN ANALYSIS OF SELECTED ASPECTS OF THE SCIENCE PREPARATION OF
PROSPECTIVE ELEMENTARY TEACHERS AT THE UNIVERSITY OF MIAMI

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

65 179
*ELEMENTARY SCHOOL SCIENCE, *PROGRAM EVALUATION, *RESEARCH
REPORTS, *STUDENT BACKGROUND, *TEACHER EDUCATION, DOCTORAL
THESES, EDUCATIONAL PROGRAMS, TEACHER QUALIFICATIONS, 1965,
UNIVERSITY OF MIAMI

47. SE 001 007 06 08 67 11 12 29 1 00 000 001
HENDERSON, ALEX, JR. AND CORRADINO, ROBERT
AN EXPERIMENTAL WORKSHOP IN BIOLOGY FOR ELEMENTARY TEACHERS

THE AMERICAN BIOLOGY TEACHER

05 00 62 3
*ELEMENTARY SCHOOL TEACHERS, *TEACHER EDUCATION, BIOLOGY,
INSERVICE TEACHER EDUCATION, SCIENCE WORKSHOPS, SCIENCE
TEACHERS, MILLERSVILLE STATE COLLEGE (PA.), PROGRAM DESCRIPTIONS

48. SE 000 974 06 28 67 11 12 29 1 00 000 001
HINERMAN, CHARLES O.
AN EXPERIMENTAL IN-SERVICE PROGRAM IN RADIATION BIOLOGY FOR
HIGH SCHOOL TEACHERS

THE AMERICAN BIOLOGY TEACHER

08 00 65 2
BIOLOGY, COURSE DESCRIPTIONS, EDUCATIONAL PROGRAMS, INSERVICE
TEACHER EDUCATION, RADIATION BIOLOGY, SCIENCE TEACHERS, SECONDARY
SCHOOL TEACHERS, NATIONAL DEFENSE EDUCATION ACT TITLE III

49. SE 000 815 08 16 67 11 93 29 1 00 000 008
HOWE, ROBERT W. AND RICHARDSON, JOHN S.
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT THE OHIO STATE
UNIVERSITY

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 5
*GRADUATION REQUIREMENTS, *NATURAL SCIENCES, *PRESERVICE
EDUCATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
BIOLOGY, CHEMISTRY, EARTH SCIENCE, PHYSICS, PROGRAM DESCRIPTIONS

50. SE 001 275 08 29 67 11 41 17 2 22 000 319
HUNT, RONALD LEROY
THE EFFECTS OF THE SAN DIEGO COMMUNITY EDUCATIONAL RESOURCES
PROJECT ON THE TEACHING OF ELEMENTARY SPACE SCIENCE

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 208
*ACADEMIC ACHIEVEMENT, *ELEMENTARY SCHOOL SCIENCE, *GRADE 5,
*GRADE 6, *RESEARCH REPORTS, *SPACE SCIENCE, COMPARATIVE STUDIES,
INSERVICE TEACHER EDUCATION, SAN DIEGO COMMUNITY EDUCATIONAL
RESOURCES PROJECT, 1964

51. SE 001 003 11 09 67 11 12 20 2 00 000 001
HURD, PAUL DeHART
THE EDUCATION OF SECONDARY SCHOOL BIOLOGY TEACHERS

THE AMERICAN BIOLOGY TEACHER

05 00 62 3
*BIOLOGY, *INSERVICE TEACHER EDUCATION, *PRESERVICE TEACHER
EDUCATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, COLLEGE
SCIENCE, METHODS COURSES, SCIENTIFIC LITERACY, SCIENCE EDUCATION
HISTORY, TEACHER CHARACTERISTICS, TEACHER BACKGROUND, NATIONAL
ASSOCIATION OF BIOLOGY TEACHERS, AMERICAN ASSOCIATION FOR THE
ADVANCEMENT OF SCIENCE, BIOLOGICAL SCIENCES CURRICULUM STUDY,
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE AND NATIONAL
ASSOCIATION OF STATE DIRECTORS OF TEACHER EDUCATION AND
CERTIFICATION JOINT REPORT, 1961

52. SE 001 089 08 18 67 11 13 20 1 00 000 004
HUTTO, THOMAS A.
SOME CURRENT PROBLEMS AND ISSUES IN THE TRAINING OF BIOLOGY
TEACHERS

SCHOOL SCIENCE AND MATHEMATICS

04 00 67 4
*BIOLOGY, *COLLEGE SCIENCE, *PRESERVICE TEACHER EDUCATION,
*SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, *NORTH CENTRAL
ASSOCIATION FOR THE EDUCATION OF TEACHERS IN SCIENCE, ST. PAUL,
(MINNESOTA), 1966, BIOLOGICAL SCIENCE CURRICULUM STUDY

53. SE 000 503 08 18 67 11 91 15 2 13 000 200
ILLINOIS STATE DEPARTMENT OF PUBLIC INSTRUCTION
HANDBOOK FOR ELEMENTARY SCIENCE WORKSHOPS

ILLINOIS STATE DEPARTMENT OF PUBLIC INSTRUCTION

507
*COURSE CONTENT, *ELEMENTARY SCHOOL SCIENCE, *TEACHER RESOURCE
MATERIALS, BIOLOGY, GENERAL SCIENCE, SCIENCE ACTIVITIES, PHYSICAL
SCIENCES, ILLINOIS

54. SE 001 853 11 20 67 11 95 17 2 22 000 319
JENKINS, L. E.
AN EVALUATION OF THE FIRST FIVE ACADEMIC YEAR INSTITUTES,
UNIVERSITY OF UTAH, SEPTEMBER, 1957-AUGUST, 1963

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 194
*COLLEGE SCIENCE, *INSTITUTE PROGRAMS, *PROGRAM EVALUATION,
*SECONDARY SCHOOL SCIENCE, *STUDENT CHARACTERISTICS, *STUDENT
OPINION, *TEACHER EDUCATION, BIOLOGY, CHEMISTRY, EVALUATION,
MATHEMATICS, PHYSICS, TEACHER OPINION, ACADEMIC YEAR INSTITUTES,
UNIVERSITY OF UTAH, NATIONAL SCIENCE FOUNDATION, 1964

55. SE 000 817 06 30 67 11 92 29 1 00 000 008
JOHNSON, PHILIP
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT CORNELL UNIVERSITY

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 3
*GRADUATION REQUIREMENTS, *TEACHER EDUCATION PROGRAMS,
CERTIFICATION REQUIREMENTS, PRESERVICE EDUCATION, SCIENCE
FACILITIES, CORNELL UNIVERSITY

56. SE 001 282 11 20 67 11 83 17 2 22 000 319
KISNER, ANDREW JACKSON
SCIENCE CONTENT PREPARATION OF PROSPECTIVE ELEMENTARY SCHOOL
TEACHERS IN EIGHT OKLAHOMA INSTITUTIONS OF HIGHER EDUCATION

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

63 193
*COLLEGE SCIENCE, *COURSE CONTENT, *ELEMENTARY SCHOOL SCIENCE,
*ELEMENTARY SCHOOL TEACHERS, *METHODS COURSES, *RESEARCH
REPORTS, *SCIENCE COURSES, *TEACHER EDUCATION, COMPARATIVE
ANALYSIS, DOCTORAL THESES, TEACHER CERTIFICATION, 1963,
OKLAHOMA

57. SE 001 055 06 01 67 11 12 29 1 00 000 006
KNAUEL, RICHARD S. AND WITTRUP, ROBERT C.
UTILIZING FIELD ECOLOGY FOR INITIAL TEACHING EXPERIENCES IN
BIOLOGY

SCIENCE EDUCATION

02 00 67 3
*BIOLOGY, *FIELD ECOLOGY, *METHODS COURSES, *PRESERVICE TEACHER
EDUCATION, *TEACHER EDUCATION, EDUCATIONAL PROGRAMS, TEAM
TEACHING, PROGRAM DESCRIPTIONS

58. SE 001 981 09 12 67 11 92 17 2 22 000 319
KORF, FREDERICK ROBERT
SOME CHANGES IN STUDENTS DURING THE FIRST YEAR OF GRADUATE WORK
IN SCIENCE EDUCATION

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

53 104
*GRADUATE STUDY, *RESEARCH REPORTS, *TEACHER EDUCATION, ACADEMIC
ACHIEVEMENT, ATTITUDES, EDUCATIONAL OBJECTIVES, GRADUATE
STUDENTS, PROFESSIONAL EDUCATION, RETENTION, SCIENCE EDUCATION,
TEACHER ATTITUDES, TEACHERS COLLEGE (COLUMBIA UNIVERSITY), 1951,
1952, 1953

59. SE 000 810 08 15 67 11 93 29 1 00 000 008
LAHTI, ARNOLD M. AND McLEOD, RAYMOND R.
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT WESTERN WASHINGTON
STATE COLLEGE

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 5
*GRADUATION REQUIREMENTS, *NATURAL SCIENCE, *PRESERVICE
EDUCATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
CERTIFICATION, FIFTH YEAR PROGRAMS, PROGRAM DESCRIPTIONS

60. SE 000 813 08 15 67 11 93 29 1 00 000 008
LEE, ADDISON AND WESTMEYER, PAUL
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT THE UNIVERSITY OF
TEXAS

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 3
*GRADUATION REQUIREMENTS, *NATURAL SCIENCES, *PRESERVICE EDUCATION,
*SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, PROGRAM
DESCRIPTIONS

61. SE 000 587 06 01 67 11 83 20 1 43 000 287
LEHMAN, DAVID L.
SIMULATION IN SCIENCE TEACHING - PRELIMINARY REPORT (PRESENTED
AT AAAS MEETING, WASHINGTON, D.C.)

AUTHOR, U. OF TEXAS, AUSTIN, SCIENCE EDUCATION CENTER

12 00 66 29
*ROLE PLAYING, *SIMULATION (EDUCATIONAL), *TEACHER EDUCATION,
*TEACHING SKILLS, BEHAVIOR DEVELOPMENT, EDUCATIONAL
PHILOSOPHY, TEACHING METHODS, PAPERS, BIBLIOGRAPHIES

62. SE 000 326 09 05 67 11 81 20 2 00 000 010
LERNER, MARJORIE S.
INSERVICE SCIENCE ACTIVITIES

SCIENCE AND CHILDREN

11 00 66 3
*ELEMENTARY SCHOOL SCIENCE, *TEACHER EDUCATION, *ELEMENTARY
SCHOOL TEACHERS, *INSERVICE TEACHER EDUCATION, *SCIENCE TEACHERS,
EDUCATIONAL TELEVISION, SCIENCE INSTITUTES, SCIENCE SUPERVISORS,
WORKSHOPS, NATIONAL SCIENCE FOUNDATION

63. SE 001 289 12 18 67 11 91 17 2 22 000 319
LERNER, MARJORIE SABBATH
AN INVESTIGATION OF THE STATUS OF THE METHODS COURSE IN ELEMENTARY
SCHOOL SCIENCE IN SELECTED TEACHER-TRAINING INSTITUTIONS
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 267
*CLASS SIZE, *COLLEGE SCIENCE, *ELEMENTARY SCHOOL TEACHERS, *METHODS
COURSES, *RESEARCH REPORTS, *TEACHER EDUCATION, BIOLOGICAL SCIENCE,
COURSE OBJECTIVES, COURSE CONTENT, CURRICULUM PROBLEMS, DOCTORAL
THESES, ELEMENTARY SCHOOL SCIENCE, EARTH SCIENCE, INSTRUCTION,
PHYSICAL SCIENCES, SCIENCE FACILITIES, SCIENCE ACTIVITIES, NATIONAL
COUNCIL FOR ACCREDITATION OF TEACHER EDUCATION

64. SE 000 811 09 27 67 11 92 29 1 00 000 008
LOCKARD, J. DAVID
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT THE UNIVERSITY OF
MARYLAND

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 5
*GRADUATION REQUIREMENTS, *NATURAL SCIENCES, *PRESERVICE
EDUCATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, SCIENCE
EDUCATION, STUDENT TEACHING, TEACHER EDUCATION FACILITIES,
UNIVERSITY OF MARYLAND

65. SE 000 966 06 27 67 11 12 17 1 00 000 001
LOZANOFF, PAUL
THE EFFECTIVENESS OF HIGHER INSTITUTIONS IN THE PREPARATION
OF BIOLOGY TEACHERS

THE AMERICAN BIOLOGY TEACHER

01 00 65 2
*CERTIFICATION, *PROGRAM EVALUATION, *SECONDARY SCHOOL SCIENCE,
*TEACHER EDUCATION, *TEACHER QUALIFICATIONS, BIOLOGY TEACHERS,
TEACHER ATTITUDES, OHIO ACADEMY OF SCIENCE, NATIONAL
ASSOCIATION OF BIOLOGY TEACHERS

66. SE 000 272 12 18 67 11 82 17 2 32 000 253
 MATTHEWS, CHARLES C.
 THE CLASSROOM VERBAL BEHAVIOR OF SELECTED SECONDARY SCHOOL SCIENCE
 STUDENT TEACHERS AND THEIR COOPERATING CLASSROOM TEACHERS
 AUTHOR, SYRACUSE UNIVERSITY, NEW YORK
 02 00 66 20
 *COOPERATING TEACHERS, *SECONDARY SCHOOL SCIENCE, *PRESERVICE
 TEACHERS, *TEACHER EDUCATION, *VERBAL BEHAVIOR, COLLEGES,
 INTERACTION ANALYSIS, EFFECTIVE TEACHING, 1964, 1965, 1966,
 NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING, FLANDERS
 SYSTEM OF VERBAL INTERACTION ANALYSIS
67. SE 001 171 07 21 67 11 82 17 1 32 000 283
 McLEOD, RICHARD J.
 CHANGES IN THE VERBAL PATTERNS OF STUDENT TEACHERS WHO HAVE HAD
 TRAINING IN INTERACTION ANALYSIS AND THE RELATIONSHIP OF THESE
 CHANGES TO THE PATTERNS OF THEIR COOPERATING TEACHERS - NARST . . .
 CORNELL UNIVERSITY
 02 00 67 19
 *INTERACTION ANALYSIS, *SECONDARY SCHOOL TEACHERS, *STUDENT
 TEACHERS, *TEACHER BEHAVIOR, *TEACHER EDUCATION, COOPERATING
 TEACHERS, PRESERVICE TEACHERS, SCIENCE TEACHERS, SECONDARY SCHOOL
 SCIENCE, VERBAL BEHAVIOR, PAPERS, NATIONAL ASSOCIATION FOR
 RESEARCH IN SCIENCE TEACHING, UNITED STATES OFFICE OF EDUCATION,
 COOPERATIVE RESEARCH PROJECT, SHELL COMPANIES FOUNDATION,
 FLANDERS INTERACTION ANALYSIS SYSTEM, RESEARCH REPORT
68. SE 001 241 08 28 67 11 13 17 2 22 000 319
 MENESIUI, MARIO MARTIN
 SOME EFFECTS OF A NATIONAL SCIENCE FOUNDATION SUMMER INSTITUTE
 IN MOLECULAR BIOLOGY
 UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN
 63 114
 *BIOLOGY, *COURSE EVALUATION, *INSTITUTE EVALUATION, *RESEARCH
 REPORTS, *SCIENCE INSTITUTES, *TEACHER EDUCATION, EVALUATION,
 INSERVICE TEACHER EDUCATION, MOLECULAR BIOLOGY, NSF SUMMER
 INSTITUTES, NATIONAL SCIENCE FOUNDATION, 1961

69. SE 000 680 08 22 67 11 42 06 2 00 000 197
MERRILL, WILLIAM M. AND OTHERS
RECOMMENDATIONS - ACADEMIC PREPARATION OF SECONDARY SCHOOL EARTH
SCIENCE TEACHERS

JOURNAL OF GEOLOGICAL EDUCATION

02 00 66 4
*TEACHER EDUCATION, *TEACHER QUALIFICATIONS, *TEACHER SUPPLY
AND DEMAND, *EARTH SCIENCE, ACADEMIC DEGREES, SECONDARY SCHOOL
SCIENCE, COMMITTEE REPORT, EARTH SCIENCE CURRICULUM PROJECT,
COUNCIL ON THE EDUCATION OF GEOLOGICAL SCIENCES, ASSOCIATION
FOR THE EDUCATION OF TEACHERS IN SCIENCE, COMMISSION ON THE
EDUCATION OF TEACHERS OF SCIENCE, GEO-STUDY, NATIONAL
ASSOCIATION OF GEOLOGY TEACHERS

70. SE 000 677 09 13 67 11 42 20 2 00 000 197
MERRILL, WILLIAM M. AND SHRUM, JOHN W.
PLANNING FOR EARTH SCIENCE TEACHER PREPARATION

JOURNAL OF GEOLOGICAL EDUCATION

02 00 66 3
*CURRICULUM DEVELOPMENT, *EARTH SCIENCE, *SECONDARY SCHOOL SCIENCE,
*TEACHER EDUCATION, *TEACHER QUALIFICATIONS, *TEACHER SUPPLY,
ACADEMIC DEGREES, EARTH SCIENCE CURRICULUM PROJECT, GEO-STUDY,
COUNCIL ON EDUCATION IN THE GEOLOGICAL SCIENCES

71. SE 001 899 11 14 67 11 33 20 2 00 000 002
MICHELS, WALTER C.
FREEDOM, RESPONSIBILITY, AND BARRIERS

AMERICAN JOURNAL OF PHYSICS

06 00 64 5
*COLLEGE SCIENCE, *CURRICULUM DEVELOPMENT, *EDUCATIONAL
OBJECTIVES, *INSTRUCTION, *PHYSICS, *TEACHER EDUCATION, PAPERS,
TEACHER CHARACTERISTICS, AMERICAN ASSOCIATION OF PHYSICS TEACHERS,
OERSTED MEDALIST

72. SE 001 871 10 18 67 02 81 17 2 22 000 319
MOOREHEAD, WILLIAM D.
THE STATUS OF ELEMENTARY SCHOOL SCIENCE AND HOW IT IS TAUGHT

UNIVERSITY MICROFILM, ANN ARBOR, MICHIGAN

65 152
*CURRICULUM, *ELEMENTARY SCHOOL SCIENCE, *RESEARCH REPORTS,
*TEACHER EDUCATION, *TEACHING PROCEDURES, DOCTORAL DISSERTATIONS,
EDUCATIONAL PROGRAMS, EDUCATIONAL OBJECTIVES, SCIENCE PROGRAMS,
1965

73. SE 001 295 11 20 67 11 91 17 2 22 000 319
MOSER, GENE WENDELL
THE POST-SECONDARY SCIENCE TRAINING OF ONE THOUSAND NINE
HUNDRED AND FORTY-FIVE NEW YORK STATE ELEMENTARY SCHOOL TEACHERS

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 361
*ELEMENTARY SCHOOL SCIENCE, *RESEARCH REPORTS, *TEACHER
EDUCATION, *TEACHER CHARACTERISTICS, *TEACHER BACKGROUND,
*TEACHER QUALIFICATIONS, *TEACHER OPINIONS, BIOLOGY, CHEMISTRY,
DOCTORAL THESES, EARTH SCIENCE, METHODS COURSES, PHYSICS,
PHYSICAL SCIENCES, NEW YORK, 1964

74. SE 001 735 08 29 67 11 42 20 1 00 000 197
MOSS, JOHN H.
THE TEACHER PROBLEM IN HIGH-SCHOOL EARTH-SCIENCE COURSES

JOURNAL OF GEOLOGICAL EDUCATION

62 4
*EARTH SCIENCE, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
PAPERS, TEACHER SUPPLY AND DEMAND

75. SE 001 132 12 18 67 11 95 20 3 51 000 261
NATIONAL ASSOCIATION OF STATE DIRECTORS OF TEACHER EDUCATION
GUIDELINES FOR PREPARATION PROGRAMS OF TEACHERS OF SECONDARY
SCHOOL SCIENCE AND MATHEMATICS

AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE

09 00 61 32
*CERTIFICATION, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION
PROGRAMS, COLLEGE SCIENCE, CONFERENCE, PRESERVICE EDUCATION,
TEACHER EDUCATION, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF
SCIENCE, CARNEGIE CORPORATION OF NEW YORK

76. SE 000 514 08 15 67 11 92 14 1 00 000 004
NATIONAL SCIENCE FOUNDATION
ACADEMIC YEAR INSTITUTE FOR SECONDARY SCHOOL TEACHERS OF SCIENCE
AND MATHEMATICS 1967-68

SCHOOL SCIENCE AND MATHEMATICS

01 00 67 7
*ACADEMIC YEAR INSTITUTES, *INSERVICE TEACHER EDUCATION, *SCIENCE
TEACHERS, *SECONDARY SCHOOL TEACHERS, *SCIENCE INSTITUTES,
MATHEMATICS INSTITUTES, MATHEMATICS TEACHERS, NATIONAL SCIENCE
FOUNDATION, 1967, DIRECTORIES

77. SE 001 517 08 15 67 11 95 14 00 000 004

NSF INSERVICE INSTITUTES FOR SECONDARY SCHOOL TEACHERS 1964-65

SCHOOL SCIENCE AND MATHEMATICS

06 00 64 6
*INSERVICE INSTITUTES, *TEACHER EDUCATION, BIOLOGY, COLLEGE
SCIENCE, CHEMISTRY, EARTH SCIENCE, GENERAL SCIENCE, INSERVICE
TEACHER EDUCATION, MATHEMATICS, NATURAL SCIENCE, PHYSICS,
PHYSICAL SCIENCES, SCIENCE INSTITUTES, SECONDARY SCHOOL TEACHERS,
*SECONDARY SCHOOL SCIENCE, DIRECTORIES, NATIONAL SCIENCE
FOUNDATION, 1964

78. SE 000 058 07 24 67 11 86 06 3 51 000 239
NATIONAL SCIENCE TEACHERS ASSOCIATION
VIEWPOINTS ON UNDERGRADUATE COLLEGE SCIENCE PROGRAMS

NATIONAL SCIENCE TEACHERS ASSOCIATION

66 72
*BIOLOGY, *CHEMISTRY, *COLLEGE SCIENCE, *HIGHER EDUCATION,
*PHYSICAL SCIENCES, *TEACHER EDUCATION, GENERAL EDUCATION,
SHELL COMPANIES FOUNDATION, INCORPORATED SPEECHES

79. SE 001 875 08 29 67 11 12 17 2 22 000 319
NICHOLAS, CHARLES H.
ANALYSIS OF THE COURSE CONTENT OF THE BIOLOGICAL SCIENCES
CURRICULUM STUDY AS A BASIS FOR RECOMMENDATIONS CONCERNING
TEACHER PREPARATION IN BIOLOGY
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

65 95
*BIOLOGY, *COLLEGE SCIENCE, *RESEARCH REPORTS, *TEACHER EDUCATION,
*TEXTBOOKS, COURSE CONTENT, EDUCATIONAL OBJECTIVES, BIOLOGICAL
SCIENCES CURRICULUM STUDY

80. SE 000 818 06 30 67 11 92 29 1 00 000 008
NOVAK, JOSEPH
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT PURDUE UNIVERSITY

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 6
*SCIENCE TEACHING METHODS COURSES, *STUDENT TEACHING, *TEACHER
EDUCATION PROGRAMS, COURSE CONTENT, GRADUATION REQUIREMENTS,
PRESERVICE EDUCATION, SECONDARY SCHOOL SCIENCE, STUDENT TEACHER
SUPERVISION, TEACHER QUALIFICATIONS, BIOLOGICAL SCIENCES
CURRICULUM STUDY, PHYSICAL SCIENCE STUDY COMMITTEE, CHEMICAL
BOND APPROACH, CHEMICAL EDUCATIONAL MATERIALS STUDY, SCHOOL
MATHEMATICS STUDY GROUP, PURDUE UNIVERSITY

81. SE 000 482 10 09 67 11 82 20 1 00 000 007
PASCARELLA, CARL J.
LOCAL INDUSTRY - AN EDUCATIONAL RESOURCE

THE SCIENCE TEACHER

04 00 66 3
*COMMUNITY RESOURCES, *EDUCATIONAL RESOURCES, *SECONDARY SCHOOL
SCIENCE, *TEACHER EDUCATION, *WORK-STUDY PROGRAMS, PAPERS,
AMERICAN CYANAMID COMPANY (PEARL RIVER, NEW YORK)

82. SE 000 273 12 18 67 11 95 20 2 00 000 007
PELLA, MILTON
CONCEPT LEARNING IN SCIENCE

THE SCIENCE TEACHER

12 00 66 4
*CONCEPT FORMATION, *LEARNING THEORIES, *SCIENCE EDUCATION,
EDUCATIONAL PSYCHOLOGY, TEACHING METHODS

83. SE 000 844 11 13 67 11 86 20 2 00 000 008
PELLA, MILTON
SOME PROBLEMS IN SCIENCE EDUCATION

JOURNAL OF RESEARCH IN SCIENCE TEACHING

03 00 65 3
*CURRICULUM IMPROVEMENT, *EDUCATIONAL PROBLEMS, *SCIENCE
EDUCATION, *TEACHER ATTITUDES, *TEACHER EDUCATION, *EDUCATIONAL
OBJECTIVES, COURSE CONTENT SELECTION, EVALUATION, EDUCATIONAL
RESEARCH, LEARNING THEORIES, LEARNING PROCESSES, RESEARCH,
SOCIOECONOMIC INFLUENCES, SOCIAL INFLUENCES, NATIONAL ASSOCIATION
FOR RESEARCH IN SCIENCE TEACHING

84. SE 001 804 12 18 67 11 95 06 2 49 000 332
 PROJECT PUBLIC INFORMATION
 SPECTRUM TWO - A SPECIAL REPORT ON THE 1966 NORTHWEST REGIONAL
 CONFERENCE OF THE NATIONAL SCIENCE TEACHERS ASSOCIATION, AND
 RELATED MATTERS
 PROJECT PUBLIC INFORMATION, 306 WEST MIFFLIN STREET, MADISON,
 WISCONSIN
 12 00 66 48
 *CURRICULUM DEVELOPMENT, *CONFERENCE PROCEEDINGS, *COMMUNICATION,
 *ELEMENTARY SCHOOL SCIENCE, *EDUCATIONAL PROGRAMS, AUDIOVISUAL
 AIDS, BIOLOGY, CHEMISTRY, COLLEGE SCIENCE, EARTH SCIENCE, GENERAL
 EDUCATION, GEOLOGY, INQUIRY TRAINING, MATHEMATICS, PHYSICS,
 NUCLEAR SCIENCE, SCIENCE COURSE IMPROVEMENT PROJECTS, *SECONDARY
 SCHOOL SCIENCE, SCIENCE AND SOCIETY, TEACHING TECHNIQUES,
 *TEACHER EDUCATION, NONGRADED CLASSES, PROJECT PUBLIC INFORMATION,
 NATIONAL DEFENSE EDUCATION ACT, IDAHO STATE TEACHERS' CONFERENCE,
 NATIONAL SCIENCE TEACHERS ASSOCIATION
85. SE 000 881 08 28 67 11 95 11 2 00 000 207
 RICHARDSON, JOHN S.
 SCIENCE TEACHING IN SECONDARY SCHOOLS

 PRENTICE HALL BOOK COMPANY

 57 385
 *CURRICULUM DEVELOPMENT, *EDUCATIONAL OBJECTIVES, *SCIENCE
 TEACHING, *TEACHING METHODS, *TEACHER EDUCATION, AUDIOVISUAL AIDS,
 CURRICULUM, EVALUATION, GUIDANCE, LEARNING THEORY, MOTIVATION,
 SCIENCE FACILITIES, SCIENTIFIC METHODOLOGY, SECONDARY SCHOOL
 SCIENCE
86. SE 001 937 08 23 67 11 33 17 2 22 000 319
 RILEY, WILLIAM ROBERT
 A PROPOSED GRADUATE CREDIT PHYSICS COURSE FOR SECONDARY SCHOOL
 SCIENCE TEACHERS

 UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

 59 226
 *COURSE CONTENT, *COLLEGE SCIENCE, *INSERVICE EDUCATION, *PHYSICS,
 *RESEARCH REPORTS, *TEACHER EDUCATION, SECONDARY SCHOOL SCIENCE
 TEACHERS, TEACHER QUALIFICATIONS, TEACHING METHODS, TEACHING
 TECHNIQUES

87. SE 000 287 09 27 67 11 13 20 2 00 000 001
 ROBINSON, JAMES T.
 BIOLOGY METHODS COURSES
- THE AMERICAN BIOLOGY TEACHER
- 12 00 66 5
 *BIOLOGY, *COURSE CONTENT, *SCIENCE METHODS COURSES, *TEACHER
 EDUCATION, *PRESERVICE TEACHER EDUCATION, COLLEGE SCIENCE,
 INSERVICE TEACHER EDUCATION, SCIENCE EDUCATION, SECONDARY
 SCHOOL SCIENCE
88. SE 001 390 09 27 67 11 42 20 1 00 000 197
 ROMEY, WILLIAM D.
 A STRATEGY FOR ALLEVIATING THE SHORTAGE OF EARTH SCIENCE TEACHERS
- JOURNAL OF GEOLOGICAL EDUCATION
- 06 00 66 1
 *EARTH SCIENCE, *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION,
 TEACHER SUPPLY AND DEMAND, EARTH SCIENCE CURRICULUM PROJECT
89. SE 001 400 07 20 67 11 41 29 1 00 00 010
 ROSCOE, ERNEST J.
 AN EXPERIMENTAL COURSE IN EARTH SCIENCE FOR ELEMENTARY TEACHERS
- JOURNAL OF GEOLOGICAL EDUCATION
- 12 00 66 2
 *ELEMENTARY SCHOOL SCIENCE, *EARTH SCIENCE, *INSERVICE TEACHER
 EDUCATION, *TEACHER EDUCATION, *PROGRAM DESCRIPTIONS
90. SE 001 161 07 18 67 11 22 22 1 43 000 287
 SAN ANTONIO SCHOOL CHEMISTRY PROJECT
 REPORT OF THE DIRECTORS OF THE SAN ANTONIO SCHOOL CHEMISTRY
 PROJECT
- UNIVERSITY OF TEXAS, SCIENCE EDUCATION CENTER, AUSTIN
- 06 00 65 18
 CHEMISTRY, INSERVICE TEACHER EDUCATION, SCIENCE TEACHERS,
 SECONDARY SCHOOL SCIENCE, SCIENCE INSTITUTES, NATIONAL SCIENCE
 FOUNDATION, PROJECT REPORTS, CHEMICAL EDUCATIONAL MATERIALS
 STUDY, CHEMICAL BOND APPROACH

91. SE 001 447 11 13 67 11 86 20 1 00 000 088
 SCANDURA, JOSEPH M.
 TRAINING LEADERS IN MATHEMATICS EDUCATION - A CONTRAST WITH
 SCIENCE EDUCATION
 JOURNAL OF RESEARCH IN SCIENCE TEACHING
 66 2
 *DOCTORAL PROGRAMS, *EDUCATIONAL PROGRAMS, *MATHEMATICS EDUCATION,
 *TEACHER EDUCATION, GRADUATE STUDY, PAPERS, PROFESSIONAL EDUCATION,
 NATIONAL ASSOCIATION FOR RESEARCH IN SCIENCE TEACHING
92. SE 001 192 08 28 67 11 95 20 1 00 000 009
 SCHIFF, L. I.
 SOME THOUGHTS ON CLASSROOM TEACHING
 THE PHYSICS TEACHER
 05 00 66 2
 *COLLEGE SCIENCE, *EFFECTIVE TEACHING, *INSTRUCTION, *PHYSICS,
 *SECONDARY SCHOOL SCIENCE, *TEACHER QUALIFICATIONS, PAPERS,
 TEACHER CHARACTERISTICS
93. SE 001 142 11 09 67 11 86 20 2 00 000 004
 SCHLESSINGER, FRED
 THE ACADEMIC BACKBONE OF SECONDARY SCHOOL SCIENCE TEACHERS
 SCHOOL SCIENCE AND MATHEMATICS
 01 00 65 8
 *EDUCATIONAL PROBLEMS, *PRESERVICE EDUCATION, *SCIENCE EDUCATION,
 *TEACHER CHARACTERISTICS, *TEACHER EDUCATION, COLLEGE SCIENCE,
 CERTIFICATION, MATHEMATICS EDUCATION, SCIENCE ACTIVITIES, TEACHER
 QUALIFICATIONS, ASSOCIATION FOR THE EDUCATION OF TEACHERS IN
 SCIENCE

94. SE 001 938 08 29 67 11 95 17 2 22 000 319
SCHLESSINGER, FREDERICK RICHARD
A STUDY AND EVALUATION OF SPONSORED PROGRAMS FOR HIGH SCHOOL
SCIENCE AND MATHEMATICS TEACHERS DURING THE SUMMER OF 1956

UNIVERSITY MICROFILM, ANN ARBOR, MICHIGAN

56 296
*EDUCATIONAL PROGRAMS, *INSERVICE EDUCATION, *RESEARCH REPORTS,
*SCIENCE PROGRAMS, *TEACHER EDUCATION, SECONDARY SCHOOL
MATHEMATICS, SECONDARY SCHOOL SCIENCE, TEACHER QUALIFICATIONS,
1957

95. SE 001 305 11 16 67 11 95 17 2 22 000 319
SERVICE, RANDOLPH GEORGE
A PROPOSED PROGRAM OF SCIENCE PREPARATION FOR ELEMENTARY TEACHERS

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 153
*CURRICULUM DEVELOPMENT, *COLLEGE SCIENCE, *ELEMENTARY SCHOOL
SCIENCE, *EDUCATIONAL PROGRAMS, *PROGRAM DESCRIPTION, *RESEARCH
REPORTS, *TEACHER EDUCATION, BIOLOGY, COURSE CONTENT, EARTH
SCIENCE, EDUCATIONAL OBJECTIVES, DOCTORAL THESES, PHYSICAL
SCIENCE, TEACHER BACKGROUND, TEACHER QUALIFICATIONS, 1964,
UNIVERSITY OF CALIFORNIA, LOS ANGELES, CALIFORNIA STATE DEPARTMENT
OF EDUCATION

96. SE 000 031 08 21 67 11 12 20 2 00 000 001
SHANNON, H. A.
PREPARATION OF HIGH SCHOOL BIOLOGY TEACHERS

THE AMERICAN BIOLOGY TEACHER

10 00 66 6
*BIOLOGY, *PRESERVICE EDUCATION, *SCIENCE EDUCATION, *TEACHER
EDUCATION, COLLEGE SCIENCE, SECONDARY SCHOOL SCIENCE

97. SE 000 678 09 27 67 11 42 17 2 00 000 197
SHEA, JAMES H.
HIGHLIGHTS OF 1965 ESCP SURVEY OF EARTH SCIENCE TEACHERS

JOURNAL OF GEOLOGICAL EDUCATION

02 00 66 4
*EARTH SCIENCE, *SECONDARY SCHOOL SCIENCE, *TEACHER QUALIFICATIONS,
*TEACHER EDUCATION, ACADEMIC DEGREES, GEOLOGY, TEACHER SUPPLY
AND DEMAND, EARTH SCIENCE CURRICULUM PROJECT, COUNCIL ON EDUCATION
IN THE GEOLOGICAL SCIENCES, 1965, RESEARCH REPORTS

98. SE 001 999 09 06 67 11 95 17 2 22 000 319
SHRADER, JOHN STANLEY
AN INVESTIGATION OF INSTRUCTIONAL PROBLEMS ENCOUNTERED BY
BEGINNING SECONDARY SCHOOL SCIENCE TEACHERS IN THE PACIFIC
NORTHWEST
UNIVERSITY MICROFILM, ANN ARBOR, MICHIGAN

57 210
*BEGINNING TEACHERS, *INSTRUCTION, *RESEARCH REPORTS, *SECONDARY
SCHOOL SCIENCE, *TEACHER EDUCATION, TEACHING METHODS, TEACHING
TECHNIQUES, SCIENCE FACILITIES, 1957

99. SE 000 679 08 22 67 11 42 06 2 00 000 197
SHRUM, JOHN W.
RECOMMENDATIONS FOR A BASIC ACADEMIC PREPARATION FOR EARTH
SCIENCE TEACHERS

JOURNAL OF GEOLOGICAL EDUCATION

02 00 66 3
*EARTH SCIENCE, *TEACHER EDUCATION, *TEACHER QUALIFICATIONS,
*TEACHER SUPPLY AND DEMAND, ACADEMIC DEGREES, SECONDARY
SCHOOL SCIENCE, EARTH SCIENCE CURRICULUM PROJECT, 1965

100. SE 001 444 08 29 67 11 42 17 2 00 000 197
 SKINNER, RAY, JR. AND DAVIS, O. L., JR.
 PREPARATION OF EARTH SCIENCE TEACHERS IN OHIO
- JOURNAL OF GEOLOGICAL EDUCATION
- 06 00 65 2
 *EARTH SCIENCE, *RESEARCH REPORTS, *SECONDARY SCHOOL SCIENCE,
 *TEACHER EDUCATION, *TEACHER CHARACTERISTICS, *TEACHER
 QUALIFICATIONS, OHIO, 1963
101. SE 001 922 08 29 67 11 81 17 1 00 000 004
 SOY, ELOIS MARIAN
 ATTITUDES OF PROSPECTIVE ELEMENTARY TEACHERS TOWARD SCIENCE AS A
 FIELD OF SPECIALTY
- SCHOOL SCIENCE AND MATHEMATICS
- 06 00 67 5
 *ATTITUDES, *ELEMENTARY SCHOOL SCIENCE, *PRESERVICE TEACHERS,
 *TEACHER EDUCATION, SCIENCE ATTITUDES, STATE COLLEGE OF IOWA
 (CEDAR FALLS, IOWA), 1967
102. SE 000 243 07 10 67 11 91 20 1 00 000 196
 STEEN, THOMAS
 THE SIGNIFICANCE OF TEACHER TRAINING IN PRODUCING AN
 EFFECTIVE ELEMENTARY SCIENCE PROGRAM
- METROPOLITAN DETROIT SCIENCE REVIEW
- 09 00 66 4
 *ELEMENTARY SCHOOL SCIENCE, *ELEMENTARY SCHOOL TEACHERS,
 *PRESERVICE TEACHER EDUCATION, *SCIENCE EDUCATION, *TEACHER
 EDUCATION
103. SE 001 917 08 23 67 11 83 29 1 32 000 339
 STEINBERG, S. HARVEY
 LABORATORY PRACTICUM - AN INNOVATION IN THE PREPARATION OF SECONDARY
 SCIENCE TEACHERS
- SCIENCE TEACHERS BULLETIN
- 67 4
 *COLLEGE SCIENCE, *LABORATORY PRACTICUMS, *SCIENCE EDUCATION,
 *STUDENT TEACHING, *TEACHER EDUCATION, EDUCATIONAL PROGRAMS,
 PROGRAM DESCRIPTIONS, (STATE UNIVERSITY COLLEGE AT CORLAND,
 NEW YORK)

104. SE 000 944 08 15 67 11 93 17 1 00 000 004
 STEWART, JOHN L.
 A REPORT ON THE TRAINING OF SCIENCE STUDENT TEACHERS FOR THE
 SECONDARY SCHOOLS AT THE NORTH CAROLINA COLLEGE AT DURHAM
 SCHOOL SCIENCE AND MATHEMATICS
 04 00 64 6
 *PRESERVICE EDUCATION, *SCIENCE METHODS COURSES, *SECONDARY SCHOOL
 SCIENCE, *STUDENT TEACHING, PROGRAM DESCRIPTIONS, TEACHER
 QUALIFICATIONS, TEACHING METHODS, PAPERS, RESEARCH REPORTS
105. SE 001 053 06 01 67 11 92 29 1 00 000 006
 STEWART, JOHN L.
 A REPORT ON THE TRAINING OF SCIENCE STUDENT TEACHERS FOR THE
 SECONDARY SCHOOLS AT THE NORTH CAROLINA COLLEGE AT DURHAM
 SCIENCE EDUCATION
 02 00 67 6
 *EDUCATIONAL PROGRAMS, *PRESERVICE TEACHER EDUCATION, *TEACHER
 EDUCATION, BIOLOGY, CHEMISTRY, METHODS COURSES, PHYSICS,
 SECONDARY SCHOOL SCIENCE, PAPER, NORTH CAROLINA COLLEGE, PROGRAM
 DESCRIPTIONS
106. SE 001 684 10 25 67 11 43 29 1 00 000 197
 STOEVER, EDWARD C., JR.
 FIELD COURSES IN GEOLOGY FOR HIGH SCHOOL EARTH-SCIENCE TEACHERS
 JOURNAL OF GEOLOGICAL EDUCATION
 03 00 64 2
 *COLLEGE SCIENCE, *COURSE ORGANIZATION, *FIELD GEOLOGY, *SUMMER
 INSTITUTES, *TEACHER EDUCATION, EARTH SCIENCE, GEOLOGY, GRADUATE
 STUDY, PROGRAM DESCRIPTIONS, UNIVERSITY OF OKLAHOMA, NATIONAL
 SCIENCE FOUNDATION

107. SE 000 119 08 21 67 11 95 20 2 00 000 008
SUTMAN, FRANK X.
HIDING BEHIND COURSE TITLES

JOURNAL OF RESEARCH IN SCIENCE TEACHING

66 3
*SECONDARY SCHOOL SCIENCE, *SCIENCE TEACHERS, *TEACHER EDUCATION,
PROFESSIONAL EDUCATION, ASSOCIATION FOR THE EDUCATION OF TEACHERS
IN SCIENCE

108. SE 001 554 11 17 67 11 11 17 2 22 000 319
THOMAS, CHARLES STANNAGE
A COMPARISON OF A UNI-PHYLUM APPROACH TO ZOOLOGY VIA THE
PATHROPODA WITH TRADITIONAL PHYLOGENETIC PROGRAM FOR THE
PREPARATION OF PROSPECTIVE ELEMENTARY SCHOOL TEACHERS
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

65 154
*ARTHROPODA, *BIOLOGY, *COLLEGE SCIENCE, *CURRICULUM DEVELOPMENT,
*ELEMENTARY SCHOOL TEACHERS, *ZOOLOGY, *RESEARCH REPORTS, *TEACHER
EDUCATION, CRITICAL THINKING, CONCEPT FORMATION, DOCTORAL THESES,
COMPARATIVE ANALYSIS, CORNELL UNIVERSITY, TEST ON UNDERSTANDING
SCIENCE, UNIPHYLUM APPROACH, 1965

109. SE 001 507 08 27 67 11 13 20 1 00 000 004
VAN DEVENTER, W. C.
BSCS MATERIALS IN THE PREPARATION OF TEACHERS OF BIOLOGY

SCHOOL SCIENCE AND MATHEMATICS

11 00 64 7
*BIOLOGY, *COLLEGE SCIENCE, *METHODS COURSES, *PAPERS, *PROFESSIONAL
EDUCATION, *TEACHER EDUCATION, PRESERVICE TEACHER EDUCATION,
BIOLOGICAL SCIENCES CURRICULUM STUDY

110. SE 001 557 11 13 67 11 92 17 2 22 000 319
VAN HOUTEN, WILLIAM
LABORATORY AND DEMONSTRATION SKILLS NEEDED TO TEACH PHYSICS AND
CHEMISTRY IN THE SECONDARY SCHOOLS - A CHECKLIST AND SUGGESTED
SYSTEM FOR THE DEVELOPMENT OF THESE SKILLS
UNIVERSITY MICROFILM, ANN ARBOR, MICHIGAN

65 160
*CHEMISTRY TEACHERS, *DEMONSTRATION SKILLS, *LABORATORY SKILLS,
*METHODS COURSES, *PHYSICS TEACHERS, *SECONDARY SCHOOL SCIENCE,
*TEACHER EDUCATION, AUDIOVISUAL AIDS, AUTOINSTRUCTIONAL
PROGRAMS, CHEMISTRY, DOCTORAL THESES, PHYSICS, PRESERVICE
EDUCATION, RESEARCH REPORTS, TEACHING TECHNIQUES, COLUMBIA
UNIVERSITY, 1965, PHYSICAL SCIENCE STUDY COMMITTEE, CHEMICAL
EDUCATIONAL MATERIALS STUDY, CHEMICAL BOND APPROACH

111. SE 001 977 09 12 67 11 91 17 2 22 000 319
VERRILL, JOHN EARL
THE PREPARATION OF GENERAL ELEMENTARY TEACHERS TO TEACH SCIENCE,
1870 TO THE PRESENT

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

61 361
*ELEMENTARY SCHOOL SCIENCE, *SCIENCE EDUCATION HISTORY, *RESEARCH
REPORTS, CERTIFICATION, COURSE CONTENT, INSERVICE EDUCATION, LIFE
SCIENCES, NATURE STUDY, OBJECT TEACHING PHYSICAL SCIENCES, STUDENT
TEACHING, 1961

112. SE 001 325 11 17 67 11 83 17 2 22 000 319
WARD, HAROLD EUGENE
SPECIAL INSTITUTE SCIENCE COURSES IN ACADEMIC YEAR INSTITUTES,
1962-63

UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

64 193
*COLLEGE SCIENCE, *COURSE OBJECTIVE, *COURSE CONTENT, *EDUCATIONAL
PROGRAMS, *INSTITUTE TYPE COURSES, *STUDENT OPINION, *SECONDARY
SCHOOL SCIENCE, *TEACHING METHODS, *TEACHER EDUCATION, *TEACHER
ATTITUDES, DOCTORAL THESES, RESEARCH REPORTS, SCIENCE PROGRAMS,
1964, THE OHIO STATE UNIVERSITY

113. SE 001 515 08 29 67 11 86 29 1 00 000 004
WASHTON, NATHAN S.
EDUCATING THE SCIENCE INTERN TEACHER

SCHOOL SCIENCE AND MATHEMATICS

06 00 64 2
*EDUCATIONAL PROGRAMS, *INTERNSHIPS, *PROGRAM DESCRIPTIONS,
*PRESERVICE EDUCATION, *SCIENCE EDUCATION, *TEACHER EDUCATION,
HAWAII

114. SE 000 742 08 25 67 11 95 11 2 00 000 212
WASHTON, NATHAN S.
TEACHING SCIENCE CREATIVELY

W. B. SAUNDERS COMPANY

67 430
*CURRICULUM DEVELOPMENT, *EDUCATIONAL OBJECTIVES, *SECONDARY
SCHOOL SCIENCE, *TEACHING METHODS, *TEACHER EDUCATION, ELEMENTARY
SCHOOL SCIENCE, *EVALUATION, INQUIRY SKILLS, SCIENCE ACTIVITIES,
NATURAL SCIENCES, SCIENCE FACILITIES, SCIENCE EDUCATION HISTORY,
SCIENTIFIC METHODOLOGY, TEACHING TECHNIQUES, TEXTBOOKS

115. SE 000 965 06 23 67 11 92 20 1 00 000 001
WATSON, FLETCHER G.
TO THE COUNCIL ON THE EDUCATION OF TEACHERS OF SCIENCE

THE AMERICAN BIOLOGY TEACHER

01 00 65 4
*BIOLOGY, *PRESERVICE EDUCATION, *PROGRAM EVALUATION, *TEACHER
EDUCATION, *TEACHER QUALIFICATIONS, COLLEGE SCIENCE, NATURAL
SCIENCES, SECONDARY SCHOOL SCIENCE, NATIONAL SCIENCE TEACHERS
ASSOCIATION/COMMISSION ON THE EDUCATION OF TEACHERS OF SCIENCE,
NATIONAL ASSOCIATION OF STATE DIRECTORS OF TEACHER EDUCATION AND
CERTIFICATION, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE,
NATIONAL SCIENCE FOUNDATION, BIOLOGICAL SCIENCE CURRICULUM STUDY,
PHYSICAL SCIENCE STUDY COMMITTEE, MILLER ANALOGY TEST,

116. SE 001 126 12 18 67 11 81 17 2 09 000 229
 WESTMEYER, PAUL
 THE FSU-AAAS DISSEMINATION PROJECT - A REPORT ON PRELIMINARY DATA
 ANALYSIS (PAPER PRESENTED AT AETS MEETING IN COLORADO)
 AUTHOR, FLORIDA STATE UNIVERSITY, TALLAHASSEE
 01 00 67 14
 *CURRICULUM DEVELOPMENT, *INSERVICE TEACHER EDUCATION, *SUMMER
 INSTITUTES, *TEACHER EDUCATION, DISSEMINATION, EVALUATION,
 TEACHING METHODS, COMMISSION ON SCIENCE EDUCATION (AAAS),
 SCIENCE - A PROCESS APPROACH, THE PROCESS MEASURE (AAAS TEST)
117. SE 000 722 07 20 67 11 32 22 1 21 000 251
 WINTER, STEPHEN S.
 COMMENTS ON TEACHER EDUCATION, NUMBER 1 A HARVARD PROJECT
 PHYSICS SUMMER INSTITUTE
 HARVARD UNIVERSITY
 CAMBRIDGE, MASSACHUSETTS
 13
 *SCIENCE INSTITUTES, *INSERVICE TEACHER EDUCATION, *PHYSICS,
 *SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, PROGRAM REPORT,
 NATIONAL SCIENCE FOUNDATION, HARVARD PROJECT PHYSICS
118. SE 000 808 08 15 67 11 93 29 1 00 00 008
 WINTER, STEPHEN S.
 MODEL PROGRAMS FOR THE EDUCATION OF TEACHERS IN SCIENCE - A PROGRESS
 REPORT FROM THE EASTERN REGION OF AETS
 JOURNAL OF RESEARCH IN SCIENCE TEACHING
 06 00 65 7
 *NATURAL SCIENCES, *PRESERVICE EDUCATION, *SECONDARY SCHOOL
 SCIENCE, EDUCATION COURSES, PROGRAM RECOMMENDATIONS, *TEACHER
 EDUCATION, ASSOCIATION FOR THE EDUCATION OF TEACHERS IN SCIENCE,
 ASSOCIATED ORGANIZATIONS FOR TEACHER EDUCATION, CONFERENCES

119. SE 000 814 08 15 67 11 93 29 1 00 000 008
WINTER, STEPHEN S. AND WOOCK, ROGER R.
SECONDARY SCHOOL SCIENCE TEACHER EDUCATION AT STATE UNIVERSITY OF
NEW YORK AT BUFFALO

JOURNAL OF RESEARCH IN SCIENCE TEACHING

06 00 65 6
*GRADUATION REQUIREMENTS, *NATURAL SCIENCE, *PRESERVICE EDUCATION,
*SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, CERTIFICATION,
COURSE OFFERINGS, PROGRAM DESCRIPTIONS, NATIONAL ASSOCIATION OF
STATE DIRECTORS OF TEACHER EDUCATION AND CERTIFICATION-AMERICAN
ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE GUIDELINES

120. SE 001 324 11 17 67 22 92 17 2 22 000 319
WOODARD, ROBERT LEWIS
THE SCIENCE OFFERINGS, ENROLLMENTS, FACILITIES, AND SCIENCE
TEACHERS IN THE PUBLIC SECONDARY SCHOOLS OF UPSTATE NEW YORK,
FALL 1958 AND 1961
UNIVERSITY MICROFILMS, ANN ARBOR, MICHIGAN

63 63 232
*CURRICULUM DEVELOPMENT, *ENROLLMENT TRENDS, *SECONDARY SCHOOL
SCIENCE, *TEACHER QUALIFICATIONS, *TEACHER SALARIES, CURRICULUM
EVALUATION, BIOLOGY, CHEMISTRY, EARTH SCIENCE, GENERAL SCIENCE,
PHYSICS, PHYSICAL SCIENCES, SCIENCE FACILITIES, TEACHER
BACKGROUND, SURVEYS, NEW YORK, 1961, 1963

121. SE 000 860 12 18 67 11 95 15 2 00 000 217
WOODBURN, JOHN H. AND OBOURN, ELLSWORTH S.
TEACHING THE PURSUIT OF SCIENCE

MacMILLAN COMPANY

65 470
*SCIENCE EDUCATION HISTORY, *SECONDARY SCHOOL SCIENCE, *TEACHER
EDUCATION, *TEACHER SOURCEBOOKS, *TEACHING METHODS, *SCIENTIFIC
METHOD, AUDIOVISUAL AIDS, BIOLOGY, CHEMISTRY, EARTH SCIENCE,
ELEMENTARY SCHOOL SCIENCE, EVALUATION, EDUCATIONAL TELEVISION,
FIELD TRIPS, PROBLEM SOLVING, PHYSICS, SCIENCE EDUCATION,
TEACHING TECHNIQUES, TEACHING MACHINES

122. SE 000 163 07 12 67 11 23 20 1 00 000 LJ6
YALMAN, RICHARD G.
TEACHING INTERN PROGRAM IN BIOLOGY AND CHEMISTRY

SCIENCE EDUCATION

10 00 66 5
*CHEMISTRY, *TEACHER RECRUITMENT, *TEACHING INTERNSHIPS, BIOLOGY,
POST-DOCTORAL INTERNSHIPS, COLLEGE SCIENCE, ANTIOCH COLLEGE,
YELLOW SPRINGS, OHIO, GREAT LAKES COLLEGES ASSOCIATION (GLCA),
AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE (AAAS),
KETTERING FOUNDATION, NATIONAL SCIENCE FOUNDATION, DANFORTH
FOUNDATION

123. SE 001 185 10 31 67 02 32 20 2 00 000 009
YOUNG, VICTOR J.
A REPORT ON PRE-COLLEGE PHYSICS

THE PHYSICS TEACHER

01 00 66 2
*COURSE CONTENT, *CURRICULUM DEVELOPMENT, *PAPERS, *PHYSICS,
*SECONDARY SCHOOL SCIENCE, *TEACHER EDUCATION, INTEGRATED
SCIENCE, PHYSICAL SCIENCES, SCIENCE COURSES, AMERICAN INSTITUTE
OF PHYSICS, AMERICAN ASSOCIATION FOR PHYSICS TEACHERS, 1966

124. SE 001 718 12 18 67 11 32 20 3 57 000 324
YUS'KOVICH, V. F. (EDITOR)
METHODS OF TEACHING PHYSICS IN SOVIET SECONDARY SCHOOLS

DANIEL DAVEY AND COMPANY, INC., 257 PARK AVENUE, SOUTH,
NEW YORK, NEW YORK

66 183
*LEARNING PROCESSES, *PHYSICS, *SECONDARY SCHOOL SCIENCE, *SCIENCE
EDUCATION, *TEACHER EDUCATION, *TEACHING TECHNIQUES, CONCEPT
FORMATION, ELEMENTARY SCHOOL SCIENCE, SCIENCE ACTIVITIES, SCIENCE
EXPERIMENTS, 1959, MOSCOW, RUSSIA