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An Analysis of Greene County Film Library

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AN ANALYSIS OF GREENE COUNTY

FILM LIBRARY

(TITLE)

BY

Gerald F. Reid

PLAN B PAPER

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I HEREBY RECOMMEND THIS PLAN B PAPER BE ACCEPTED AS
FULFILLING THIS PART OF THE DEGREE, M.S. IN ED.

19 July 1968
DATE

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ADVISER

19 July 1968
DATE

[redacted]
DEPARTMENT HEAD

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INTRODUCTION

Greene County is located in West Central Illinois. There are three school districts within the county. Total student enrollment in the county as of 1968 is 3,881. Greenfield, Carrollton, and North Greene school districts contributed one dollar per pupil for the establishment of a county film library. County Superintendent of Schools Charles K. Barnett officially opened the Green County Film Library on September 1, 1965. At the time of this study, the library has been in operation for three years.

STATEMENT OF THE GENERAL PROBLEM

The intent of this study is to investigate the general problems and the effectiveness of the Greene County Film Library as a source of educational films. Also this study will include an analysis of the expenditure by the library for each film shown. The general financial influence the county library has had on the separate school district's expenditure for rented film will also be investigated.

PURPOSE AND IMPORTANCE OF THE STUDY

Before improvements can be made in any organization, the deficiencies must be discovered. This study could prove to be an

effective instrument in improving the educational value of the Greene County Film Library. Distribution of the findings of the study to administrators and teachers in Greene County may result in increased use of the film library. Administrators may find the recommendations for improvement of the library under study to be an instrument in improving the services of similar film libraries. The recommendations for further study may lead the way for investigation into the general problems of county film libraries.

DELIMITATIONS OF THE STUDY

There was no attempt to analyze the variation in film usage due to the tenure, sex, teaching field, grade level, or knowledge of the library that the teachers exhibited. There was no method advanced for quantitatively measuring the educational value of the separate films used. The study covered a span of six years. During this time the overall cost for film rental remained relatively constant. Therefore, variation due to any increase in film rental cost was not considered. The number of rented films used by the school districts was possibly influenced by changes in school administration and the resulting changes in attitude towards the value to education of audio-visual aids. The cost for film strips, purchase and repair of audio-visual equipment was not included as expenditure for film rental.

North Greene School District had a policy at the time of this study that discouraged use of films rented from any agency that rents films. This policy caused North Greene to have an exceptionally low film rental expenditure. The district did not keep records as to the number of free films shown or postal cost for "free" films used. This study used estimates made by North Greene's bookkeeper as figures for analysis. North Greene School District came into existence in 1964. Data on this district was begun on this date.

BACKGROUND AND RELATED RESEARCH

Through experiments and research, tests and measurements, the value of the film in education has been established.[1] Investigations made by foundations, commercial concerns, universities, and private enterprises have been the subject of many books and papers. Films have been proven to arouse interest in a subject, provide information, and function as an effective summary.[2] Films develop and change attitudes, provide a visual concept of things outside the range of experience, and give a common background of experience to any group.[3]

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[1] Doan McDonald, Educational Motion Pictures and Libraries (Chicago: The American Library Association, 1942), p. 11.

[2] Ibid., p. 12.

[3] Ibid.

Early tests on the educational value of films have been criticized for attempting what the film was not made to do--to take the place of teaching and study.[4] These experiments arouse a vague apprehension in teachers who feared that they would eventually be displaced by the film. They had visions of an auditorium filled with children where films were shown, and one proctor stood in the place of a dozen teachers. In actual practice something quite the contrary resulted. Films have demanded more rather than less of the individual teacher, and the entire school's attendance at an auditorium showing has been the least effective of all methods of using the educational film.[5] Films are inevitably a springboard rather than a substitute for teaching.

Further value of the film as an educational tool was illustrated by the fact that as a general rule, the pupils who read most saw the greatest number of pictures.[6] The reverse of this statement was also true.

Availability is the first criterion for a film collection, and from the borrower's point of view, the more remote the point of service

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[4] Ibid.

[5] Ibid.

[6] Helen Rand and Richard Lewis, Film and School: A Handbook in Moving-picture Evaluation (New York: D. Appleton-Century Company, 1937), p. 156.

the more difficulty he encounters in getting exactly what he wants.[7] "All instructional material should be as available to students as to their teachers."[8] County film libraries can meet the needs of teachers and students if the library is administered well. If books were as difficult to obtain as films, little reading would be done in this country.[9] In the first place, the film distribution system is often out of direct touch with the borrowers and sometimes restricts borrowing privileges to special groups. At the same time there has been a small demand for films, so that production is limited and costs are kept high.[10] These two factors would seem to deadlock each other. But production and costs are dependent on distributions, and if distributions can be made more widespread, the demand for films will increase.

Cooperative film libraries have been in existence for more than twenty-five years. Confining their activity within one county or one section of a state, the films are kept at a central location, but the problem of borrowing and returning the films is often as time consuming as distribution from a state center.[11] When the collection is set

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[7] McDonald, p. 17.

[8] Murry G. Phillips, "Instructional Materials Center, the Rationale," Clearing House, XXXVII (February, 1963), pp. 381-83.

[9] McDonald, p. 18.

[10] Ibid.

[11] Ibid., p. 22.

up, provision for additions are not always made clear, and in time the collection becomes out of date or is worn out without replacements being made. Proper storage, inspection, and replacement of damaged parts of films are not always attended to because no arrangement was made for this administrative work when the collection was formed. No one may be designated to instruct teachers and other users in the operation of the projector and the handling of films, and already some of the newly formed cooperative film libraries have films in deplorable condition.[12]

According to standards set by Hyer, Greene County Film Library should contain 750 film titles.[13] Even though the initial cost of the library will be high, McDonald suggests that the cost per pupil is very low. The following illustrates this point. If each film has an average of two showings per booking and an average of 140 bookings, the film will be used 280 times. If at each showing there is an average of fifty pupils present, or a total of 14,000 pupils see the film, the film will cost $50,000, and the cost per pupil will be twenty-four hundredths of a mill.[14]

At the same time the public book libraries report that "a book goes out an average of twenty times on its first binding and forty

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[12] Ibid.

[13] Anna L. Hyer, "Setting Quantitative Standards," Audio-visual Instruction, VI (December, 1961), pp. 506-10.

[14] McDonald, p. 118.

times on its second binding, or a total of sixty times--which means sixty people read the book before it is thrown away."[15] If the book cost is $1.50, then the per person cost is a trifle more than six mills more than the film cost.[16] Added to this, Dr. Aughinbaugh has pointed out that "considerable money spent on maps, charts, science laboratory equipment and supplies, and field trips may be saved by employing films."[17]

An effective film library established by a county or school district will not reduce the function of the state's or commercial libraries. On the contrary, local libraries have tended to increase the use of larger centers of films.[18] Local film libraries do not displace a central film library. They increase the volume and the area of its services, "for film use breeds film use...."[19]

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[15] Ibid.

[16] Ibid., p. 119.

[17] Ibid.

[18] Charles F. Hoban, Movies That Teach (New York: Dryden Press Inc., 1946), p. 113.

[19] Ibid.

HYPOTHESES

A null hypothesis to be tested states that expenditure for film rental by the separate school districts before institution of the Greene County Film Library is equal to the expenditure for rented films since institution of the library. This study will compare the mean cost per booking from film rental agencies with the cost per booking at the Greene County Film Library. A null hypothesis advanced states that the average cost per film shown from the Greene County Film Library is equal to the average cost of film rented from other agencies.

METHOD AND TREATMENT OF DATA

Investigation of expenditure for film rental was made for a period of three years before and three years after the film library was established. These figures were tabulated. The mean expenditure since institution of the library was compared with the mean expenditure before institution of the library.

Examination of data in Tables one and two indicates an increase in expenditure for film rental. The exception to this is found in the figures for North Greene which shows no increase. This is due to the present policy of using only free films at North Greene. Not considering North Greene, an average increase of 0.7% for film rental is indicated.

TABLE 1

COST OF FILM RENTAL: 1962-1965

School	1962-63	1963-64	1964-65
Greenfield	$454.99	$503.33	$506.77
Carrollton	1,812.51	1,207.33	1,545.45
North Greene		20.00	25.00

mean/year $988

TABLE 2

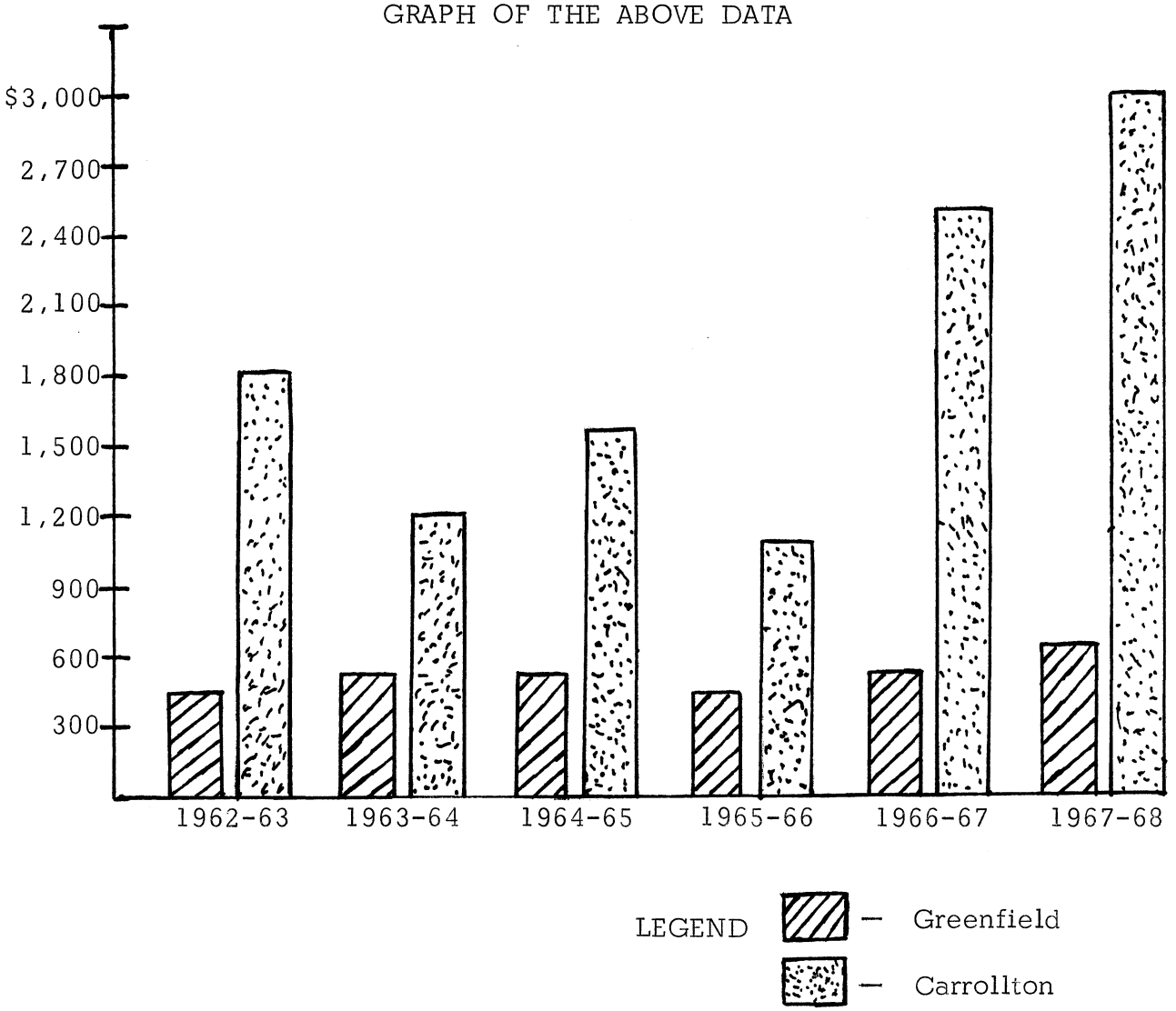
COST OF FILM RENTAL: 1965-1968

School	1965-66	1966-67	1967-68
Greenfield	$434.61	$564.08	$655.13
Carrollton	1,114.98	2,574.45	3,000.00
North Greene	37.28	30.00	30.00

mean/year $1,390

TABLE 3

GRAPH OF THE ABOVE DATA



"Films depreciate over a period of approximately ten years."[20] The mean operating cost of the library plus ten percent of the purchase price of the films and equipment was determined. The expenditure was divided by the mean number of films shown since the library

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[20]Interview with Charles K. Barnett, Director of Greene County Film Library, April 17, 1968.

was established. The dividend is the cost per booking. This cost was compared with the mean cost per booking from other sources. A comparison of the means from Table 4 indicates that the costs per booking for rented film at the time of this study is 17.6% higher than the cost per booking from the Greene County Film Library.

TABLE 4

COST PER BOOKING

School year	1965-66	1966-67	1967-68
Number of bookings	0	180	180
Operating cost	0	$2,280.	$2,550.

Total number of bookings ----------948

Total operating cost ----------$4,830

Greene County cost per booking---------- $5.10

Mean cost per booking from other agencies----------$6.00

Percent increase over Greene County's cost per booking------17.6%

ADMINISTRATIVE PROBLEMS OF GREENE COUNTY FILM LIBRARY

When the Greene County Film Library opened in 1965, the participating schools received films for preview that were being considered for purchase. Teachers previewed films that pertained to their teaching fields. They marked each film as poor, fair, good, or excellent. Any film that received a grade of fair or poor was not

considered for purchase. Films that received a good or excellent were purchased. At the present, teachers that use the library's films are required to evaluate the films as poor, fair, good, or excellent. If a teacher marks a film as poor or fair, and the film was appropriate, the film is returned to the company from which it was received and replaced with another of comparable cost. The lease to purchase films was good for two years. After that amount of time, the library could not redeem a film. If a film was not used more than once in two years, it was redeemed.

If film evaluation is to be successful, the teachers that are using the films must be competent judges of the quality of an educational film. If this assumption is not true then the administration must fill the void. Occasionally the administration must keep films that were marked poor or fair and redeem films that were graded good or excellent. Such action must be taken only if necessary to avoid morale problems with the teachers involved.[21]

When teachers request new films, the administration must make sure that the requests are not of such nature that only one teacher will use the films. New films ideally should be suited to the needs of all the teachers.[22]

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[21] Ibid.

[22] Ibid.

After a year of operation, need for multiple prints for certain films can be demonstrated. Often seasonal films, films pertaining to a famous person, and films concerned with a holiday are requested on the same date. There should be multiple prints of such films.[23] Ideally, there should be at least two prints of each film.[24]

Replacement of films should be made as prints become worn, styles of dress change, advancements in technology are achieved, change in teaching methods are accepted, and variation in teacher demand for prints is noticeable. To keep prints up to date the administration must be alert to the above changes. Continuous evaluation of the films is necessary.[25]

Most films from the Greene County Film Library are booked a year in advance. However, if desired, a teacher may request a film one day in advance and receive the film if there is no conflict. This is possible because there is a pickup and delivery service every day. If a conflict does occur, the films are dispersed on a first come-first serve basis.

A necessary function of a film library is to keep the films in good physical condition. If possible, a film library should have film splicers, a rewinding machine, and film cleaning equipment.[26] With

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[23] Ibid.

[24] Interview with Jim Reynolds, April 16, 1968.

[25] Ibid.

[26] Ibid.

such equipment, the task of film maintenance still requires the assistance of the users. To receive this cooperation, the clients must have some knowledge of proper care for films. This knowledge is best acquired by a program of inservice training and instruction at such events as county institutes.[27] One of the problems at the Greene County Film Library is the lack of film cleaning equipment and a high speed rewinding machine. Also, the teachers in Greene County need more training in the care of films.[28]

One of the biggest problems of most film libraries is the improper use of film. Films are usually designed for a specific grade level, to convey a specific idea or technique, and to appeal to a general intellectual group. To help teachers use films for the designed purpose, inservice training is required.[29] A guide for film selection is provided by Greene County Film Library in the form of a booklet that contains a preview of every film available. There is also a keyed system to indicate the grade level recommended for each film. A copy of this booklet is included in the appendix.

The schools participating in the facilities of the Greene County Film Library contribute one dollar per pupil to cover the expenses and operating costs. This sum should be increased to a figure "at least

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[27] Ibid.

[28] Ibid., Charles K. Barnett.

[29] Ibid., Jim Reynolds

three times this amount." Such a fee is necessary if the library is to purchase new films, purchase multiple prints, and renew old prints.[30] With a fee of three dollars per pupil, the library could also purchase more sophisticated equipment and hire additional clerical help.[31]

On page seven, the quote that "film use breeds film use" is demonstrated when one examines the increase in expenditure for film rental. Tables 1 and 2 indicate a 40.7% increase in film rental fees. Greene County Film Library is stimulating film use from other sources.

Research indicates that the cost per booking at the Greene County Film Library averaged $5.10 over the past two years. Rental cost from sources other than those that deal in free films average $6.00 per booking. This is a difference of 17.6% per booking. If the first year of operation is not considered, the library should be able to reduce the cost per booking to about $3.20 within the next year.[32]

IMPLICATIONS OF THE STUDY

After an analysis of an organization has been made, comments can be grouped as positive and negative. Greene County Film Library is stimulating use of audio-visual aids in the participating

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[30] Interview with Dr. Stockman, Director of Audio-visual Center, Eastern Illinois University, April 16, 1968.

[31] Ibid., Charles K. Barnett.

[32] Ibid.

schools. The library also has an efficient method of distributing and booking films.

Greene County Film Library needs: a higher per pupil rate to cover expenses and to allow expansion, more inservice training of teachers to insure proper use of films, multiple prints of high demand films, more prints to offer a greater variety of films, and general expansion of facilities to offer even greater service.

RECOMMENDATIONS FOR FURTHER STUDY

Accompanying the growth of film libraries, there have been many complex problems. The areas of concern that need further study are: methods of film distribution, methods of film evaluation, analysis of the use of computers for the scheduling of bookings, examination of electronic equipment that is possibly more efficient than film as a teaching device.

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_____. Personal interview with Dr. Verne A. Stockman, Director of Audio-Visual Center, Eastern Illinois University, Charleston, Illinois. April 16, 1968.

_____. Personal interview with Charles K. Barnett, County Superintendent of Schools, Carrollton, Illinois. April 17, 1968.

_____. Personal interview with James Reynolds, Charleston, Illinois. April 16, 1968.

APPENDIX

nea *department of audiovisual instruction*

(202) 223-9400, EXT. 325

1201 SIXTEENTH STREET, N.W. • WASHINGTON, D. C. 20036.

February 21, 1968

Mr. Gerald F. Reid
308 Mulberry
Greenfield, Illinois

Dear Mr. Reid:

The Department of Audiovisual Instruction has no standards for county film libraries.

I am sending to you a list of quantitative standards which may be of a little assistance to you, and also a set of evaluative criteria for school media programs.

Sincerely,

[redacted]

Anna L. Hyer
Executive Secretary

ALH:jw
Enclosures

REQUEST FOR FILM

NAME.....

SCHOOL..... GRADE.....

TITLE.....

.....No.....

DATE: FROM.....TO.....

REMARKS.....

.....

GREENE COUNTY FILM LIBRARY

(Guide To Facilitate Film Usage)

Films have been listed under subject matter headings for primary, intermediate, junior high, high school, college, and adult levels. In addition, an alphabetical listing of all films with a brief description of each film has been added.

Films should be used as instructional aids.

Films shall be loaned for a period of one week.

All film requests must be in by Thursday noon. Please do not put requests for next week's film use in returning film boxes or cans. Avoid calling for film requests on Thursdays and Fridays. This time is necessary for checking in, rewinding and preparing for film delivery for next week's use.

Films must be returned to this office by 4:00 P.M. on Thursday of each week. Failure to return films on time makes it impossible to deliver these films to the next user on schedule.

Minor film repairs will be paid from the funds of the County Film Library. Any unusual film damage shall be paid by the school responsible for the damage.

IF IT IS NECESSARY TO SPLICE FILMS WITH SCOTCH TAPE, PLEASE PUT A NOTE IN THE FILM CAN REPORTING IT.

FILMS SHOULD NOT BE REWOUND. They will be checked and rewound in the county office.

If possible, channel your requests through your principal's office or the person designated in your building or district.

Charles K. Barnett
County Supt. of Schools

SUGGESTIONS FOR USING THE FILM

I. Teacher should preview the film.
   A. Study the manual if one is provided.
   B. Be thoroughly familiar with the film before using it.
      1. Watch for important scenes and significant action.
      2. Note new words or terms.
      3. Analyze and evaluate the film content.

II. Teacher should plan thoroughly prior to the use of the film.
   A. When and why is the film to be used?
   B. What function can it best serve?
      1. Can it be used to introduce a new activity?
      2. Will it aid direct instruction?
      3. Will it help to review materials previously studied?
      4. What specific concepts, generalizations, skills, insights, or appreciations will it assist?

III. In the introduction of the film, students should be looking for specific facts.
   A. List a few real and pertinent questions.
   B. Outline in brief for students the film content.
   C. Tie up with former related projects.
   D. Explain unusual photograph techniques.
   E. Make advance assignments of related activities.
   F. Use other aids to help set the stage for the film.

IV. Techniques involving the projection of the film are important.
   A. Darken the classroom if possible in preference to using the auditorium.
   B. Show film more than once.
   C. If possible, stop the projection for discussion.
   D. Make the showing as simple and easy a way as possible.

V. Follow-up activities are essential.
   A. Give students an opportunity for analysis, interpretation, and discussion.
   B. Capitalize on discussion to bring out major objectives.
   C. Encourage follow-up projects.
   D. Use various types of tests to check information.
   E. As an English lesson have students summarize film content in a paragraph.

VI. Evaluation of the film determines the effectiveness of its use.
   A. Did it meet particular needs of the students?
   B. Should its use be recommended to others?

FOUR SHEETS OF REPLACEMENT MATERIALS FOR YOUR FILM NOTEBOOKS

CLASSIFICATION OF FILMS

ART

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VOCAL MUSIC

Vocal Music 600

KEY*

P-----Kindergarten-Primary	1-2
I-----Intermediate	3-4-5
J-----Junior High	6-7-8
H-----High School	9-12
C-----College	
A-----Adult	

*GRADE LEVEL CODE

Capital letters (P-I-J-H-C-A) after each title indicate grade levels for which the materials were designed. Small letters (p-i-j-h-c-a) indicate grade levels at which the materials will be found useful.

CLASSIFICATION OF FILMS

The Greene County Film Library will use the following numbers; the number on the film will indicate the subject area of that film. Each film is classified in a specific subject area; however, it may be used in related subject areas.

Art	1-49
Guidance	50-99
Health and Safety	100-199
Lanuage Arts	200-299
Science	300-399
Mathematics	400-499
Social Studies	500-599
Vocal Music	600-624

NUMBER OF FILMS

As of November 1, 1967, the following number of films have been catalogued in each subject area.

Art----------	10 films
Guidance----------	3 "
Health and Safety----	9 "
Language Arts--------	10 "
Science----------	83 "
Mathematics----------	3 "
Social Studies-------	69 "
Vocal Music----------	1 "
TOTAL	188 films

REMINDER: The number underlined prior to each synopsis is the order number of that film. Films may be ordered by number rather than name.

ALPHABETICAL LISTING
and
FILM SYNOPSIS

ALASKA-The 49th State--Its People and Resources C 16 Min. 500
I-J-h-c-a
Visualize the great natural beauty and vitality of Alaska--America's last frontier. Reveals development of the State's five geographic areas, shows the land, resources, and the people and their work. Surveys the rapidly growing cities, the homesteads and farmlands, and major industrial development. Also considers the needs and the related problems involved in future development of the state.

AMERICAN FLAG, THE (The Story of Old Glory) B/W 14 Min. 501
I-J-h-a
Features actual locations and dramatized events in reviewing the history of our national flag. Shows the various flags used in America, beginning with the royal flag of Spain brought by Columbus, and concluding with the most recent change in the Stars and Stripes when Hawaii became the fiftieth state. Describes how the American flag was designed and put into use; and how changes in the flag reflect the growth of the nation.

AMERICAN REVOLUTION, THE C 16 Min. 502 J-H-a
Explains the strategy, the struggle, the movement of forces, the important military engagements and the meaning of the war for independence. Stresses geographical, social, and political factors which brought victory to the thirteen states. Animated drawings and color photography cover, in an imaginative but accurate way, the terrain and battlefields over which the war was fought.

ANDREW JACKSON B/W 18 Min. 503 I-J-h
Portrays major events in the life of Andrew Jackson, the symbol of the common man in government. Re-enacts experiences of Jackson's boyhood; depicts highlights of his military career; and traces events in his years as President.

ANIMAL HOMES B/W 11 Min. 300 p-I
Shows where various animals live--above the ground, in the ground, and in the water-- and explains why animals build their homes where they do. Reveals unusual interior scenes of several animals' homes, including those of the trap-door spider, squirrel, raccoon, skunk, woodchuck, and wood mouse.

ANIMALS AT WORK IN NATURE C 11 Min. 301 p-I
Introduces and illustrates the concept that animals have special body parts which enable them to perform specialized functions: building their homes, raising young, finding food, and storing food. Shows a variety of animals including bees, crickets, woodpeckers, orioles, caterpillars, ants, gophers, and beavers.

ANIMAL TRACKS AND SIGNS C 11 Min 302 P-i
Shows how animals canbe identified by the tracks they leave in mud, snow or sand. Two children"capture" some animal tracks in their mud trap and identify them in a book. They also go looking for familiar tracks and signs in the woods and along the seashore.

ANTS B/W 11 Min 303 I-j
Depicts the activities of four different types of ants--mound builder, black ants, household ants, and carpenter ants. Shows in detail the life cycle of the carpenter ant, including construction of the nest, laying of eggs, feeding of young hatching, and preparation for swarming.

ARCHIMEDES' PRINCIPLE B/W 7 min. 304 j-H
Dramatizes the problem that led to Archimedes' famous experiments on buoyancy, and recreates the experiments under conditions that show the development of his Principle. Demonstrates the use of the modern Archimedes Balance with the cup and cylinder apparatus. Demonstrates experimentally the measurement of the buoyant force of fluid upon an immersed solid.

ARE MANNERS IMPORTANT? B/W 11 Min. 50 I-j
Designed to stimulate thought and provoke discussion about this important subject; the film reveals that good manners enable people to live together in a pleasant, enjoyable way. Illustrates several episodes in the day of a young boy who clings to his belief that "kids don't need manners."

AUSTRALIA C 22 Min. 504 I-J-H-c-a
Drawing a rich and varied profile of the nation, this film presents the many geographis, social, economic, and cultural concepts important to an appreciation of this country. From the finges of the continent to the limitless rangeland of the "outback" the film gives insight into Australian life. Explains what problems exist for the Australians and their approach to solving them.

AUTUMN ON THE FARM C 11 Min. 305 P-I
Two farm children observe the changes that take place in plant and animal life during autumn. Joan and Jerry become interested in such fall activities as apple and corn harvesting, grape picking, nut gathering, the hibernation of animals, and the migration of wild ducks.

BEGINNING TO DATE B/W 12 Min. 51 J
Dramatizes one of the most important periods in the lives of young teen-agers, with effective illustrations of right and wrong approaches to dating. Offers special help to the timid student, whose shyness creates a barrier to dating--and demonstrates basic rules for conduct on a date. Points out that these rules are based on consideration for others.

BENJAMIN FRANKLIN B/W 17 Min. 505 I-J-h
Highlights the rich, full life of Benjamin Franklin, statesman, man of letters, and scientist-inventor. Depicts early struggles as an apprentice, later successes as publisher and author, experiments in science, growing ability as statesman and diplomat, and experiences as American representative to England and France.

BETTER READING C 13 Min. 200 J-H-a
Demonstrates the methods used by a reading clinic to help a high school student increase his reading speed and comprehension, and to enlarge his vocabulary. Reveals that good readers as well as poor readers can improve their reading ability. Considers the values of being able to read rapidly with understanding.

BIG LAND ANIMALS OF NORTH AMERICA C 11 Min. 306 p-I
Bear, bison, caribou, elk and deer are among the many large animals photographed in their natural habitat. Shows the life activities of many of these animals: how they find food, secure shelter, and protect themselves and their young. Describes the interrelationships of these animals to each other and to their environment.

BOATS AND SHIPS C 11 Min. 506 P-i
On a sailboat trip through a large harbor, two children see a variety of boats and ships, including a freighter, a tug, a policeboat, a ferry, a fireboat, and an ocean liner. The children's grandfather, a former sea captain, explains differences in the way boats are built to do their special jobs. The film also includes a sequence on the history of boats.

BODY DEFENSES AGAINST DISEASE B/W 11 Min. 100 j-H-c-a
Examines the three lines of defense against infection--the skin and mucous membrane, the lymphatic system, and the circulatory system including liver and spleen. Animated drawings and cinemicrography permit study of each type of defense at work. Explains how the body becomes immune to certain diseases, and how to improve defenses against infection.

CHILDREN OF THE ALPS B/W 13 Min. 507 I-j
Presents typical scenes of life in the Swiss Alps. Emphasizes the daily activities of Swiss mountain children at work and at plan, showing how their lives and personalities are influenced directly by the rugged environment in which they live. Includes scenes of children in the home, at school, and at their favorite winter sport.

CIRCUS DAY IN OUR TOWN B/W 16 Min. 201 P
Takes children behind the scenes of a big three-ring circus and shows highlights of an actual performance. Covers the arrival of the circus, the colorful parade, the unloading of the animals, and the raising of the tent by men working with elephants. In the "Big Show," artists perform daring acts on the trapeze, the high wire, and on horses; and the elephants appear again to do their tricks.

CIVIL WAR, THE C 16 Min. 508 J-H-a
Pictures the most important military events of the war between the North and the South, stressing social, economic, and geographical factors which ultimately forced the South to capitulate. Animated drawings and color photography portray in an imaginative and accurate way the meaning of events.

CLAY IN ACTION B/W 12 Min. 1 j-H-C-A
Scu;pturing a portrait in clay is demonstrated by Arturo B. Fallico, Ph. D., of Chicago Teachers College. Begins with the first application of clay to the armature and follows carefully through to the finished work. Emphasizes such essentials as basic measurements, simplicity of tools, creation and refining of principal planes, and the artist's individual interpretation of his subject.

CLOTHING B/W 11 Min. 509 P-I
Shows that people wear clothing for protection and comfort, and that their choice of what to wear is influenced by factors of climate and occupation. Fiji Islanders wear simple, light clothing suitable for their warm, moist climate; Eskimos dress in heavy cloth and fur to survive the Arctic cold; while firemen, cowboys, and deep-sea divers wear specialized clothing suited to their particular jobs.

COLONIAL CHILDREN B/W 11 Min. 510 p-I
Re-creates with authentic settings, costumes, and furnishings, the home life of a Puritan farm family in 17th century New England. Shows how members of the family work together at home and in the fields; how they make their own clothing, linens, utensils, soap, and candles; and how the children receive both their schooling and religious education at home.

COLOR C 6 Min. 2 P-I
In this film, children will explore new wonders of color in nature, in pigments, in yarn, clay, wood, and other art materials. Avoiding formal color harmonies, the film stimulates interest in experimentation, encourages children to "put colors together in your own way. Make them say what you want them to say."

COLOUR IN CLAY C 12 Min. 3 j-H-C-A
Created in a famous pottery-making section of England, this film portrays modern commercial pottery making in an authentic setting. It is designed to show the successful combination of art principles with modern technological methods. Mixing and shaping the clay, applying decoration, firing and glazing are shown.

CONGRESS, THE B/W 20 Min. 511 J-H-a
Presents a dramatic demonstration of the powers and duties of the Congress. The making of law begins with citizens at home concerned with a vital issue. This issue--a community's need for a flood control program--is traced from the action of a local committee to a congressman, through debate in a congressional committee, to final action on the Senate floor.

DRAWING A PORTRAIT C 10 Min. 4 J-H-C-A
An effective demonstration of the basic steps involved in creating a likeness, using a minimum of lines and details as one would do in drawing a preliminary sketch for a painting. A number of simple devices are introduced to aid in developing basic skills: the ability to judge distances by comparing an unknown one with one that is known, and the ability to judge angles.

EARS AND HEARING, THE B/W 10 Min. 307 j-H-C
Describes the physiology of the human ear by means of graphic animated drawings and remarkable close-up photography of the ear as it is functioning. Portrays accurately how the parts of the ear operate, explains causes of of impaired hearing, and demonstrates hearing aid use.

EARTH IN CHANGE: THE EARTH'S CRUST C 16 Min. 308 I-J-h
Tells the story of the changing land feature of our planet. Shows that the earth's crust is constantly being changed by the action of dynamic natural processes: erosion, folding, sedimentation, volcanic action, and earthquakes. Describes how the earth's geologic history can be deduced from careful study of the present structure of the earth's crust.

C-A
EAST AFRICA (KENYA, TANGANYIKA, UGANDA) C 21Min. 512 I-J-H-
Shows the variety and natural beauty of the regaion's physical features, and reveals the influence of topography on settlement and economic development. Examines the contrasting ways of life of the different peoples who live there, and shows their various activities, problems, and achievements in a difficult period of transition.

EGYPT:CRADLE OF CIVILIZATION C 12 Min. 513 i-J-H
Surveys the culture of ancient Egypt and examines its contributions to the development of Western civilization. Shows how the Egyptian way of life evolved from a prinitive tribal culture to an organized society under a single powerful ruler. Illustrates Egyptian achievements in art, architecture, medicine, astronomy, and mathematics.

EROSION--LEVELING THE LAND C 14 Min. 309 I-J-h-a
This film examines the surface processes of weathering, erosion and deposition. Rocks gradually rust, crack, disintegrate, and decompose. This lossened rock debris can go in only one direction--down. Sometimes this movement is spectacular as in a landslide. Other times the movement is subtle, as in soil creep. The net effect of transferring rocky material from high ground to basin areas is always in the direction of leveling the land. The film ends with the question, "If all the land above sea level is constantly being washed into the oceans, why, then, aren't all land surfaces not only flat but also level with seas?"

ESKIMO CHILDREN B/W 11 Min. 514 p-I-j
Pictures Eskimo life on an island off the Alaskan Coast. Deals principally with activities of the children in describing how Eskimos solve their basic problems of food, shelter, and clothing. Presents such phases of Eskimo life as handicraft work,household duties, hunting, drying fish, visiting the trader's store, etc.

EVIDENCE FOR THE ICE AGE C 19 Min. 310 I-J-h-a
This film studies in detail contrasting features of today's landscapes and then establishes that these features could not result from the conditions and processes that now surround them. Anomalies such as glacial moraine deposits, polished and striated rock, stray boulders, and abandoned drainage channels are explored. By comparing these with the work of modern glaciers, it can be proved that these strange geological features were fashioned by sheets of ice that came and went in prehistoric times.

EXPLAINING MATTER:CHEMICAL CHANGE C 11 Min. 311 I-J
Illustrates that a chemical change takes place when atoms from the molecules of two or more materials join with each other to form molecules of entirely different materials. Reveals that the most important chemical changes do not take place in laboratories: burning is a common chemical change which releases heat and light; digestion of food provides energy for the human body; and plant photosynthesis porduces the oxygen and food which sustain life on earth.

EYES AND VISION C 10 Min. 312 I
Clearly designed animation sequences explain the structure and functions of the human eye and describe the complicated mechanism of human vision. The film also shows how the retinal image is inverted; how the lens changes shape to bring objects into sharp focus; and how the pupils open and close to regulate the amount of light entering the eye.

FARM ANIMALS C 11 Min. 313 P-i
Children spend a day on the Carlton farm and learn to identify common farm animals such as cows, horses, chickens, and sheep. Explains that on a modern farm animals are raised for food rather than for work; illustrates various livestock products and how they are obtained; and emphasizes that a farmer must take good care of his animals.

FIRE: WHAT MAKES IT BURN C 11 Min. 314 P-i
Uses simple laboratory demonstrations to show what is needed to make a fire, what a flame is, how combustion takes place, and how a fire can be extinguished. Stresses that fire can be dangerous and illustrates safety measures for its control.

FIREMAN, THE C 11 Min. 515 P-i
Dramatizes typical activities of a company of firemen. Shows how they prepare for emergencies by practicing fire-fighting techniques and by keeping equipment in perfect condition. Highlight of the film is an exciting ride on a fire engine to a real fire.

FIRST AID ON THE SPOT B/W 10 Min. 101 J-H
Makes a vital contribution to all courses and programs on first aid instruction. Demonstrates approved first aid treatment as set forth in the revised edition of the American Red Cross First Aid textbook. Film features six common types of injuries or disabilities and the American Red Cross technique for treating each, with demonstrations of caring for wounds, burns, and shock; of controlling bleeding; splinting a fracture; and administering artificial respiration by both approved methods.

FLATBOATMEN OF THE FRONTIER B/W 11 Min. 516 I-J-h
(Ohio Valley Farmers: 1790-1820)
Reveals an important phase of pioneer life in the early nineteenth century. Portrays Ohio Valley farmers as they fell trees, prepare the lumber, and build a flatboat which will carry their produce down the river to market. Follows the men on the first lap of their journey downstream.

FLOWERS AT WORK C 11 Min. 315 i-J-h-c
Shows by animation, time-lapse and close-up photography, the process of cross-pollination, self-pollination, and fertilization. Pictures special devices of flowers to assure pollination and describes the part played by insects.

FORCES C 14 Min. 316 I-J-h
This film shows: 1. A force is a push or a pull. 2. When forces acting on an object are balanced, the object remains motionless; when the forces are unbalanced, the object moves. 3. Pairs of forces can change the shape of an object. 4. Machines make it possible to change the direction or size of a force. 5. An impact can transmit a force. 6. Three kinds of forces that act between objects not touching each other are magnetism, electricity, and gravity.

FORM C 6 Min. 5 I-I
Demonstrates how the character of an object is revealed through its form. Young viewers, identifying themselves with the children in the film, will enjoy the "What Is it?" game with forms that have a name.

FOX AND THE ROOSTER, THE B/W 11 Min. 202 P-i
This charming adaptation of one of Aesop's fables points up the moral that even a clever schemer can be outwitted when good friends help each other. Real animals play all the roles.

FRANK AND HIS DOG C 6 Min. 203 P
Happy home and family relations, familiar and exciting to children, form the theme of this film designed especially to motivate reading in the primary grades.

FRONTIER BOY OF THE EARLY MIDWEST C 15 Min 517 I-j
Portrays the life of frontier settlers in the Midwest during the early 1800's. From a young boy's viewpoint, the film describes the everyday events of one family--illustrating school and community activities, as well as home life. Stresses the self-sufficiency of these early settlers, and shows that hard work and cooperation were an essential part of frontier family life.

FUN ON THE PLAYGROUND B/W 11 Min. 102 P
Shows a group of eight-year-olds engaged in three kinds of constructive play activities: an impromptu game which they invent themselves, a team game which they play according to rules, and a creative game with dramatizes a subject the class is currently studying in school.

GEORGE WASHINGTON B/W 19 Min. 518 I-J-H
Brings to life the qualities and skills which made Washington, more than anyone else, the builder of the American nation. Portrays significant events of his boyhood and his role in the French and Indian Wars. Illustrates his trials and triumphs as military leader in the American Revolution and as organizer of the movement to frame the Consitution. Reveals his difficulties and successes as President.

GETTING A JOB B/W 16 Min. 52 j-H
Through the experiences of Edward Bartley and three of his classmates, this film explores the variety of leads which are open to high school students in search of a job. It also describes how to use the many aids to job-hunters, such as the personal history, the letter of application and the letter of recommendation.

GRAVITY: HOW IT AFFECTS US C 14 Min. 317 p-I-j
Illustrates the concept of gravity and shows its effect upon the earth and the universe. Demonstrates how the force of gravity can be used to do work, how gravity affects our daily lives, and how it would affect a human being in space or on other planets. Simple demonstrations and animation are used to show the effects of gravitational force.

HAWAII--THE FIFTIETH STATE-- C 17 Min. 519 I-J-H-c-a
People and Resources
Presents a comprehensive overview of the newest state, beginning with a brief history of the Islands' volcanic formation. Also reviews the history of early Polynesian settlement and relates the influence of diverse cultures on the present way of life in Hawaii. Reveals the physical geography and natural resources of the Islands; shows major industries; and considers Hawaii's importance in the nation's defense.

HEART AND CIRCULATION B/W 10 Min. 318 j-j-H-c-a
Portrays how heart and blood vessels circulate blood throughout the body. Animated drawings depict the nature of the circulatory system and muscular and valvular heart action. Reveals factors affecting rate of heart beat, flow of blood from severed artery, and effect of severing cervical nerve.

HEAT--ITS NATURE AND TRANSFER B/W 11 Min. 319 J-H
Explains in animated drawings the nature of heat and some of the principle ways in which heat is transferred. Illustrates practical applications of heat in home and industry.

HOUSEFLY, THE C 17 Min. 320 I-j-h-a
Makes use of unusual techniques of microphotography and magnification to portray the habits and life history of the common housefly and the ways in which it is a menace to health. Traces physical development from egg-laying through larval and pupal stages to the emergence of the young fly. Magnified views reveal biological structure and methods of carrying and spreading disease germs. Suggests practical control methods.

INTRODUCTION TO BIOLOGY B/W 14 Min. 321 j-H
Provides an excellent overview of biology for prospective students and beginners. Emphasizes the significance of biology as a means of understanding ourselves and becoming better acquainted with our biological enviornment. Describes the life processes and depicts ways in which biology is applied to such problems as combating disease and conrtolling insect pests.

JET PROPULSION C 13 Min. 322 i-J-h
Provides a graphic explanation of jet propulsion and its use in modern aircraft. Explains through animation the workings of jet engines and the principles of physics on which they are based, with special emphasis on Newton's third law of motion. Shows various types of jet engines and their uses. Portrays jet aircraft in flight and suggests future potentiality.

KEEPING CLEAN AND NEAT C 11 Min. 103 I-j
Stimulates interest in the subject of personal appearance and demonstrates practical procedures for good grooming. When two eight-grade students visit a lower grade classroom to choose helpers for their assembly program, the younger children begin to realize the value of making a good appearance. They work out a step-by-step routine for care of the hair and nails, bathing, dressing, caring for their clothes, and keeping their rooms in order.

LEARNING ABOUT SOUND B/W 8 Min. 323 I-j
Demonstrates how sound is produced, how sound travels, and how we hear it. Three common methods of producing sound--the vibration of a string, the vibration of a taut surface, and the vibration of a column of air--are explained and analyzed through the use of simple experiments and animated drawings.

LEONARDO DA VINCI C 25 Min. 520 j-H-C-a
(Giant of the Renaissance)
An exciting revelation of the life and work of Leonardo Da Vince--master of painting and sculpture, architect and inventor, author of scientific method that foreshadowed modern research. Examples from the works of Da Vinci--his paintings and his amazing notebooks--include works of art never before recorded on film.

LIFE IN ANCIENT ROME C 14 Min. 521 I-J-h-A
With a full-scale reproduction of the Roman Forum, authentic settings and costumes, the film re-creates typical scenes and activities in the city of Rome during the reign of Emperor Trajan. It examines the characteristics and achievements of Roman Empire at the height of its power; points out some of the weaknesses in Roman society; considers the ways in which Roman ideas and culture influenced the development of Western civilization.

LIGHT AND COLOR C 14 Min. 324 I-J
This film shows: 1. Light and color are related. 2. White light is made up of many different colors of light. 3. Objects appear bright if they reflect a lot of light to our eyes. 4. White objects reflect a lot of light. 5. Dark objects absorb light. 6. Each element, when heated, display a set of colors. These colors are used as "fingerprints" to identify elements. Etc.

LIGHT AND DARK C 6 Min. 6 P-I
Striking camera studies in light, shadow, and gradations of color illustrate the meaning of values in art.

LIGHT AND WHAT IT DOES C 11 Min. 325 P
Demonstrates, through a series of simple experiences, how light travels; how it is affected by different materials; what causes reflection and refraction; and how light is used in many everyday activities. We see boys experimenting with a camera and light meter, leading to the discovery that (1) light does not pass through an opaque metal shade; (2) some light comes through a translucent shade; (3) all the light travels through a transparent chandelier.

LIGHTHOUSE, THE C 12 Min. 522 P-I
Tells the fascinating story of a young boy whose father is a lighthouse keeper. The lad listens to ship-to-shore radio messages and helps his father shine the lighthouse prism and take care of the power plant. He helps his father do the marketing and then collects driftwood along the shore.

LINE C 6 Min. 7 P-I
Variations in the qualities of lines may be found in nature--in lines on rocks, on a tiger, and in the trail made by a snail. Combining imaginative photography with animation, this film clarifies line movement and suggests to children the creative possibilities of materials such as thread, rope, and wire as well as paint, chalk, and crayon.

LOUISANA PURCHASE--KEY TO A CONTINENT B/W 16 Min. 523 i-j-H
Tells the story of Jefferson's purchase of the Louisiana Territory, one of the most decisive events in the westward expansion of the United States. Reconstructs in a series of dramatic episodes the circumstances which prompted the farmers of the Mississippi Valley to press the acquisition of the port of New Orleans and the developments in France that caused Napoleon to sell the Territory.

MAKING THINGS MOVE C 11 Min. 326 P
Introduces concepts of force and motion by leading children through a series of practical experiences with objects and machinery on a farm. Shows examples of forces that make things move; forces that keep things from moving; and forces--such as gravity and friction--that makes things more difficult to move.

MEANING OF PLUS AND MINUS, THE C 11 Min. 400 P
Demonstrates the mathematical meanings of "plus" and "minus," and their symbols. Children in an actual classroom situation learn to understand what these terms really mean by applying them to their own everyday experiences.

MEDIEVAL CRUSADES, THE B/W 28 Min. 524 i-J-H-a
Re-creates events that led to the Crusades. It follows the fate of one noble family and their manor through the First Crusade. It reviews the most important later Crusades and the influence of the Crusade on life in Europe. The historical scenes were dramatized and re-created in several medieval cities in France, Asia Minor, and Palestine.

MEET MR. LINCOLN B/W 27 Min. 525 i-J-H-C-A
Presents a living portrait of Abraham Lincoln as his contemporaries saw him, in the pictures and words of his own time--in eloquent photographs, slashing political cartoons, and newspaper stories of the day. Reviews the critical events of Lincoln's presidential years: his decisions on the issues that divided North and South, his conduct of the Civil War, and his plans for reconstruction of the South.

MIDDLE EAST, THE C 14 Min 526 I-j-h
Illustrates the region's vital importance to the rest of the world, and shows the influence of geographical conditions and cultural traditions on the present development of the region. Pictures the people, their way of life, and their work. Also reveals the historical traditions of the countries included in this region, and the changes that taking place.

MIDDLE STATES, THE C 11 Min. 527 I-J-h
Reveals the unique balance of agriculture and industry which exists in the region of the eight middle states. Shows the four distinct economic belts; interdependence of the middle states with the other states; the cultural and social qualities of the people; and early migration into the area.

MOLECULAR THEORY OF MATTER, THE B/W 11 Min. 327 H-C
Through stop-motion photography and animation, this film presents the basic assumption of the kinetic molecular theory: matter in its three phases may be considered to be composed of small particles in motion. Experiments show the passage of one substance through another, how pressure of a gas can be measured, change of phase, and the diffusion in liquids.

MONARCH BUTTERFLY STORY C 11 Min. 328 p-I-J-h-c
Indicates the geographical range of the Monarch, shows close-up detail of its form and coloring, and traces the four stages of its life cycle--egg, larva, chrysalis, and imago. Time-lapse photography shows how the larva hatches from the egg, molts several times, spins its cocoon, and emerges, transformed from a crawling caterpillar into a delicate butterfly.

MOSQUITO, THE B/W 11 Min. 329 I-j-h
Reveals the life cycle of the mosquito, and emphasizes the vital importance of malaria mosquito control. Portrays egg-laying, egg hatching, the molting process, the pupa stage, and the emergence of the adult mosquito. Presents examples of areas where mosquitoes breed, and demonstrates effective methods for combating the insect.

NAVAJO INDIANS B/W 11 Min. 528 I-j-h
Portrays the Navajos in their native environment, engaged in such activities as building a home, tilling the soil, tending sheep, carding the wool, and weaving it into colorful blankets. Shows barter at a local trading post, the performance of native dances, a marriage ceremony, and a wedding feast. The story centers around Taska and Alnaba, a betrothed young couple.

NERVOUS SYSTEM, THE B/W 11 Min. 330 j-H-c
Examines structure and functions of spinal cord, medulla, mid-brain, thalamus, and cerebrum. Explains how sense organs receive stimuli, and how nerves carry impulses to central nervous system and thence to muscles.

NORTHEASTERN STATES C 11 Min. 529 I-J-h
Surveys the manifold industrial and commercial activities of the Northeastern States and describes through animation and photography the region's physical characteristics and the distribution of its people. Gives examples of the region's agricultural and mineral resources, beautiful recreation areas, closely knit transportation system, commerce and industry, investment wealth, cultural activities, and mass communication.

NORTHWESTERN STATES C 11 Min. 530 I-j-h
Represents the Northwestern States as the "bread basket of the nation" and stresses the importance of their agricultural and mineral resources. Animated maps illustrate the region's geographical characteristics, population treads, extent of resources, and interdependence with the rest of the nation.

NUMBER SYSTEM, THE C 13 Min. 401 P-i
Explains the fundamental principles of the number system. A young boy, laboriously counting his collection of toy Boy Scouts, discovers it is easier to count objects by arranging them in groups of ten. He also learns how to use a tally sheet to keep an accurate record of his count.

ORIGINS OF WEATHER C 13 Min. 331 I-J-a
Live photography and colorful animation sequences explain how the earth is protected from extremes of heat and cold by the thin layer of atmosphere surrounding it. Shows how the sun's heat is distributed by moving masses of air and how the activities of cold and warm fronts produce constantly changing weather conditions over the surface of the earth.

OUR COMMUNITY C 12 Min. 531 P-I
Illustrates important community insitutions and their services by portraying a day in the life of a ten-year-old boy. Depicts police and fire protection, health safeguards, and park and recreational facilities. Points out ways in which the members of a community serve each other, and emphasizes that membership in a community is a responsibility as well as a privilege.

PASSENGER TRAIN, THE C 11 Min. 532 P-i
The story of a young boy's overnight trip on a passenger train. Follows him as he explores the train and enjoys some of its special services--in his roomette, in the dome car, the observation car, and the diner. Shows behind-the-scenes activities of railroad personnel--in the station and on the train--to help make the trip safe, comfortable, and pleasant for all the passengers.

PHOTOSYNTHESIS C 21 Min. 332 J-H
Explains how green plants transform light energy into food by the process of photosynthesis. Laboratory demonstrations are used to show how scientists study the process by which carbon dioxide and water--in the presence of light and chlorophyll--react to produce sugar and release oxygen.

POMPEII AND VESUVIUS C 11 Min. 533 I-J-H-a
Pictures an actual eruption of Mt. Vesuvius and the ruins of the city of Pompeii. Recalls the eruption of 79 A.D., and depicts the current scene in Pompeii and environs. Activities of present-day Naples and a colorful folk dance in Sorrento provide authentic glimpses of the life that carries on within the very shadow of the still active and ominous mountain.

ROCKS THAT FORM ON THE EARTH'S SURFACE C 16 Min. 333 I-J-h-a
This film investigates the processes which produce sedimentary rocks, with emphasis on sandstone and shale as examples of clastic rocks. The sediment is first traced to its upstream source and them downstream to its site of accumulation. Sedimentary layers are examined by using underwater photography, emptying a water reservoir, and using laboratory models. Compaction and cementation, two essentials for making loose sediment into hard rock, are examined separately--first in nature and then in the laboratory. The origin of limestone and coal are explained. The film ends with questions about the origins of certian types of sedimentary rocks. These questions can be investigated by the student using concepts described earlier in the film.

SAFETY ON THE PLAYGROUND C 14 Min. 104 P
Centering around the activities of an active youngster, this film illustrates proper habits of playground safety. Live action photography and animated drawings portray safe practices in catching and batting softballs,and playing on seesaws, slides, and swings. the film emphasizes consideration for others.

SAVE THOSE TEETH B/W 11 Min. 334 p-I-j
Emphasizes the importance of proper cleansing in the care of teeth, and illustrates how the teeth are affected by excessive use of refined sugar. Identifies the kind of bacteria that change sugar to acid in the mouth. Demonstrates the use of sodium fluoride solution in the prevention of tooth decay and prescribes specific rules to be followed for teeth care.

SCIENTIFIC METHOD, THE B/W 12 Min. 335 J-h
Explains the steps of the scientific method, demonstrates the way this method of problem solving is applied by scientists, and discusses the value of scientific thinking in dealing with problems of everyday life. Features the discovery of penicillin by Sir Alexander Fleming.

SIMPLE MACHINES: THE INCLINED PLANE FAMILY B/W 11 Min. 336 I
The inclined plane, simplest of all machines,has been in use for centuries. In order to explain the operation of this basic machine, the film follows a young boy named Mark who discovers, through a series of simple experiments, how an inclined plane can make work easier.

SOUND AND HOW IT TRAVELS C 11 Min. 337 P
Defines sound, and shows that it is caused by vibrations. Reveals that vibrations must travel from their source through a sound medium--air, liquid, or solid--to be heard. Simple demonstrations help to illustrate the differences between one sound and another. Provides an understanding of sound in everyday life, and reveals some of the important uses of sound in specialized work.

SOUND WAVES AND THEIR SOURCES B/W 11 Min. 338 j-H-C-a
Explains that all sound originates in vibrating objects, and illustrates the three general types of vibrating sound sources: columns of air, surfaces, and strings, and rods. Describes the major characteristics of sound waves--loudness, pitch, and quality--and demonstrates the principal auditory differences between sounds.

SOUTHEASTERN STATES C 11 Min. 534 I-J-h
An overview of the geography, resources, and cultural patterns of the Southeastern States. Combines animated maps with live photography, to analyze geographical features of the region; describe population trends; and show the interdependence of the Southeast with other regions in the United States.

SOUTHWESTERN STATES C 11 Min. 535 I-J-h
Traces population treads and explains geographical features by means of animated maps. Illustrates such occupational activities as irrigation, stock raising, agriculture, mining, and oil extracting and refining. Reveals the Southwest's interdependence with other regions.

SPANISH CHILDREN B/W 16 Min. 536 p-I-j
In the village of Alora, high in the mountains of Andalusia, Spain, the townspeople enjoy the pleasures of rural living in a sunny, mild climate, the beauty of a lovely countryside and the plentiful harvests of varied citrus fruits. The film highlights the activities of a young boy and his sister during harvest time in the month of December, citing their life at home, at school, in the village plaza, and in the orchards and fields nearby.

SPRING ON THE FARM C 11 Min. 339 P-i
Children discover some of the changes that take place in plant and animal life during the months of March, April, and May. They watch the planting of crops, the return of migrating birds, moths coming out of their cocoons, baby rabbits emerging from their nest, and trees and flowers bursting into bloom.

THE TEETH (DEVELOPMENT AND CARE) B/W 11 Min. 105 i-J-H
Explains development and structure of teeth and stresses importance of proper care. Reveals the growth cycle of teeth from embryonic stage through adulthood. Demonstrates the cause of decay and how it can be prevented by eating proper foods, brushing the teeth regularly and properly, and consulting a dentist frequently. Calls attention to organized community programs for dental care.

TEETH ARE TO KEEP C 11 Min. 106 P-I
Explains essentials of dental hygiene in an animated cartoon story, and helps establish healthy attitudes about visiting the dentist. Dramatizes four important rules for care of the teeth: using a toothbrush correctly; eating the kinds of food that build healthy teeth; avoiding too much candy; and visiting the dentist twice a year.

TEXTURE C 6 Min. 8 P-I
The exploration of surfaces--hard, rough, soft, and smooth--provides a tangible appraoch to understanding textural qualities in art.

TIPPY, THE TOWN DOY C 11 Min. 340 P
On his way to school, Jimmy says hello to Tippy, a friendly terrier belonging to Mr. Black. While Jimmy is at school, Tippy escapes from his backyard and sets out to explore the town. When Jimmy comes by, Mr. Black offers to give Tippy to him because Mr. Bleak feels that the dog needs a young companion. When they discover that Tippy is gone--Jimmy searches all over, and almost gives up hope. Suddenly, Tippy spots Jimmy and runs to meet him.

TRIP TO THE PLANETS, A C 15 Min. 341 I-J-a
Illustrates an imaginary trip to the planets, based on the most recent scientific facts about the solar system. Model photography and animation have been combined to examine the composition and structure of our solar system; the motions of the planets, comets, and asteroids; and the forces which keep the planets in motion. Also reveals the size and appearance of the planets, their surface conditions as scientists imagine them to be, and explains how the sun produces its enormous energy.

VIBRATIONS C 14 Min. 342 I-J
This film shows: 1. A vibration occurs whenever an action is repeated with a more or less regular rhythm. 2. Sound is the result of something vibrating. 3. We can hear sounds produced by rapidly vibrating objects. 4. We cannot hear sounds produced by rapidly vibrating objects. 5. It takes force to start something vibrating. 6. Every object that vibrates has a natural frequency of vibration. 7. Two things are needed to produce a vibration: a force that pulls the vibrating object toward a center position, and the natural tendency for a moving object to keep moving.

VISIT WITH COWBOYS, A B/W 11 Min 204 P-i
A city boy visits a western ranch for the first time, and sees cowboys rounding up, roping, and riding horses; watches cowmen roping and branding calves; meets a fence rider at work; helps to shoe and feed horses; and ends his visit in the excitement of a big-time rodeo.

WEIGHTS AND MEASURES B/W 14 Min 402 I-j
While building a model railroad, Tommy begins to realize the importance of weights and measures. He learns more about their practical value when he visits his uncle's farm, his neighborhood grocery store, and the post office.

WHAT IS ART C 6 Min. 9 P-I
As an introduction to the Art in Action Series, the film lists the elements of art--color, line, form, light and dark, and texture--and analyzes briefly the nature function of each.

WHAT IS ELECRIC CURRENT? C 14 Min. 343 I-J
This film shows: 1. Electric current has many uses: it produces light, heat, and power. 2. House current is dangerous. 3. There is an electric current only when electricity has a complete circuit to flow through. 4. The flow of electricity through wires is in some ways similar to the flow of water through pipes. 5. Electicity can flow in either direction through a circuit. 6. When there is an electric current, whatever it is that flows is already in the wires. 7. The "stuff" in wires that can flow is called electric charge. 8. When something pushes electric charges and makes them flow, there is an electric current. 9. Electric charges are in all materials. 10. Batteries and generators act rather like pumps that make electric charges flow.

* See next page for omitted film listing.

WHAT MAKES CLOUDS? C 19 Min. 345 I-J-h-a
The film takes a close look at fog and at clouds. The pupil discovers that both are formed by droplets of water and also learns where this water comes form. This research leads to evaporation and transpiration as sources of invisible water vapor, but it does not explain how clouds are formed from the vapor. This problem is solved by lavoratory experiments with condensation. The film closes with an investigation of how condensation occurs in nature and a discussion of the differences between clouds and rain.

WHICH WAY IS NORTH? C 14 Min. 537 I
Shows that the standard system of directions based on "north" enables men to establish positions at fixed points and to plot courses of movement from one point to another. Thus, an accurate determination of "north" is necessary for the working of the direction-finding system. Differentiates between true and magnetic north, and shows how navigators must correct the compass reading according to the "angle of magnetic variation."

WHY FOODS SPOIL (Molds, Yeasts, Bacteria) C 14 Min. 107 I-J
Describes the work of molds, yeasts, and bacteria, showing how they grow and multiply, how they spoil food, and how they can be destroyed. Examines processes used in food preservation, such as drying and smoking, canning and freezing, pasteurizing, dehydrating, and using gamma rays.

WIND AND WHAT IT DOES C 11 Min. 346 P
Through the use of a scientific discovery technique--combined with natural observation--the film providws a direct and immediate experience with the important aspects of wind: what it is, what it can do, and how it affects man and his surroundings.

WORK OF THE KIDNEYS, THE B/W 11 Min. 347 j-H-c
Describes structure and functionof the renal system, and explains how the kidneys maintain uniformity in blood and tissues. Demonstrates, with animated drawings and laboratory experiments, the formation of urine, regulation of blood compostion, etc.

WORLD WAR I B/W 28 Min. 538 j-H-C-A
(A Documentary on the ROLE OF U.S.A)
Through documentary scenes of the period and the actual words of historical figures, this film brings to life the events which led the United States into war; describes the course of the war, and Wilson's role at the peace conference. The historical scenes were made available to EBF by the National Archives, Washington, D.C.

WORLD WAR II (Prologue, U.S.A) B/W 29 Min. 539 j-H-C-A
Through documentary scenes of the period, this film reviews the historic events which led to U.S. entry into Wrold War II. Describes the "great dilemma" which faced Americans and shows the different stages through which American public opinion passed as the events in Europe took place. Follows the development of world conflict, from Japan's invasion of Manchuria to the bombing of Pearl Harbor, and U.S. entry into the war on Dec.8, 1941.

YOUR BODY AND ITS PARTS C 12 Min. 348 P-i
Provides an overview of the human physiology presented in the other six films of the series. It shows that when parts of the body work together to do a particular job, they form what is called a system. Different systems are introduced; the muscle system, the respiratory system, the circulatory system, the skeleton and the nervous system. Also shows how the systems of the body work together in performing many body functions.

VOCAL MUSIC B/W 11 Min. 600 J-H
Describes the basic techniques of singing, such as good posture, controlled breathing, relaxation, use of resonators, and clarity of diction. Emphasizes the jobs to be found in singing, as well as the work necessary to produce a trained voice. Reviews the structure of the vocal instrument and illustrates common faults found in beginner students of vocal music.

*Film listing from previous page.
WHAT IS SPACE? C 11 Min. 344 I-J-h
This film shows: 1. There is much space on earth. 2. There is much more space around the earth. 3. Space is not empty. 4. Outer space is occupied by the sun, moon, planets, and stars. 5. All through space--on earth and in outer space--there is movement. 6. The vast distances of outer space are measured in light years: a light year is the distance light travels in one year. 7. Space exists in objects that appear solid. 8. Space is everywhere. 9. Scientists believe that "solid materials" are mostly space. 10. "Empty" space is not really empty because, for example, light, heat, and radio waves are constantly passing through it.

ALPHABETICAL LISTING OF SUPPLEMENTAL SYNOPSES

The following are synopses of films which have originally been on a loan basis; they have now been purchased and each has been assigned a number.

These sheets of synopses should REPLACE the green sheets ("Additional Films 1966-67") in your film booklets.

AIRPLANES: HOW THEY FLY — C — 11 Min. — 322 (I-j)

THIS FILM REPLACES JET PROPULSION.

Sequences of a light airplane in flight and views of a large model aircraft being constructed are used to demonstrate basic concepts of flight. Shows how the passage of air past the wing creates the difference in pressure which lifts the airplane into the air.

AIRPLANE TRIP BY JET, AN — C — 11 Min. — 540 (P-I)

Tells the story of a transcontinental jet flight showing personnel in the airport assisting passengers, while the ground and flight crews service the plane. Offers views of a modern airport, jetliner equipment, and cabin facilities.

ANIMALS IN AUTUMN — C — 11 Min. — 349 (P-I)

Typical activities of a variety of animals show them searching for food, building warm homes, preparing to migrate or hibernate during the winter months. Includes deer, fox, weasel, cold-blooded birds, and insects.

ATOMIC ENERGY — B & W — 11 Min. — 350 (J-h-c)

Identifies, with animated drawings, parts and structure of atoms; defines and contrasts electronic or chemical energy and nuclear energy; explains the three known forms of atomic energy release. Illustrates relationship between atomic energy from the sun and chemical energy stored and released in photosynthesis and combustion.

BRITISH ISLES, THE — C — 21 Min. — 541 (I-J-H-c)

The Land and People. Traces the physical geography of England, Wales, Scotland, Northern Ireland, and reveals ways in which the land has influenced the way of life and the national character of the British people.

CHAUCER'S ENGLAND — C — 30 Min. — 205 (H-C)

(Special presentation of THE PARDONER'S TALE) Opens with the first lines of the "Prologue" to Chaucer's CANTERBURY TALES, recited in middle English. Presents a dramatization of the PARDONER'S TALE--an ironic story of the folly of avarice.

CHILDREN OF HOLLAND B & W 11 Min. 542
(p-I)

Describes the daily life of a farm family who live near the market town of Middleburg. Traditions, customs, and various occupations and activities on the farm and the village are featured.

CHILDREN IN SPRING C 11 Min. 351
(P)

Two children observe the signs of spring on a picnic in the woods. They find tadpoles in a stream and baby birds in a robin's nest. Later they plant a vegetable garden.

CHILDREN IN WINTER C 11 Min. 352
(P)

The progress of winter is observed by checking temperature changes and noticing the length of the days. Two children play in the snow and watch the winter animals.

CLAUDIUS: BOY OF ANCIENT ROME C 17 Min. 543
(p-I-j)

Film offers colorful highlights of life and customs in ancient Rome: scenes in the Forum, which was the center of government, commerce, and the social life of the city; and family activities on a great estate.

CONSTITUTION OF THE UNITED STATES C 22 Min. 544
(j-H)

Dramatizes the conditions which led to the creation of a stronger federal government, the events leading to the convening of the Constitutional Convention, major work of the convention, the underlying principles of government in the Constitution and the struggle over ratification.

DANIEL BOONE B & W 18 Min. 545
(I-J-h)

Relives important episodes in the life of America's best-known wilderness scout, Daniel boone, revealing the personality traits and experiences which made him outstanding in his field.

EARLY SETTLERS OF NEW ENGLAND B & W 11 Min. 546
(I-J-h)

Reveals, with authentic settings, and costumes, how the pioneers of Salem in 1626 adapted themselves to the new environment and hardships of early New England. Describes how they solved problems of food, shelter, and clothing.

EARTH IN MOTION, THE B & W 11 Min. 353
(H-c)

Portrays the earth as an astronomical body, its relation to the sun and its motion. Presents evidence of earth's sphericity, its axis of rotation, its revolution about the sun, and inclination of its axis.

EGYPT AND THE NILE C 17 Min. 547 (I-j-h)

Describes the past and current relatinnship between the Nile River and Egyptian civilization. Explains the historic importance of the Nile for Egyptian commerce, industry, and defense. Acnient remains and modern facilities are shown in both Upper and Middle Egypt and in the Delta region.

ELECTRONS AT WORK C 14 Min. 354 (I)

Electrons carry electric charges; they have mass and can move objects by colliding with them. Visual evidence that electrons can be found in all kinds of materials is given when a hair brush rubbed on a cat attracts a banana.

ELEPHANT BABY C 11 Min. 355 (P-i)

This film tells the story of an elephant in India from the time he is born, through the weeks of training, until he joins a working force of elephants in a teakwood lumber camp.

ELI WHITNEY B & W 18 Min. 548 (I-J-H)

Dramatizes the life story of Eli Whitney, inventor of the cotton gin. Also describes Whitney's experiments in designing tools and building machinery for the manufacture of muskets, which made him a pioneer of mass production.

ENERGY AND WORK C 11 Min. 356 (I)

Demonstrates some characteristics of energy: its ability to do work; that it is neither created nor destroyed, but changed from one form to another; that energy can be stored; and the the energy in moving objects is kinetic.

FARMER, THE C 15 Min. 549 (P-i)

Dramatizes a day in the life of a farm family: their problems, the many responsibilities of each family member. Shows work in the fields, harvesting the crop, housework duties.

FIRST MEN INTO SPACE C 16 Min. 357
(Solving the Space Survival Problems) (I-J-H)

Re-creates, with live photography, film animation, and scale models, the first American orbital space flight, and illustrates some problems of man's survival in this hostile enviornment.

FREIGHT TRAIN, THE C 11 Min. 550 (P-i)

Behind-the-scene look at scheduling, inspection, assembly of cars in a freight train. Follows train from Kansas City to Chicago. Examines specific duties of train personnel, the operation of signal and safety devices.

FUNDAMENTALS OF THE NERVOUS SYSTEM C 17 Min. 358
(h)

Illustrates the two major divisions of the nervous system and explains their functions. With live photography, photomicrography, animated drawings and demonstrations, the film shows how the nervous system conveys external information from the sense organs to the brain, coordinates the infromation with present and past experience, and directs muscles and other organs to adaptive behavior.

GIANT PEOPLE, A B & W 11 Min. 551
(I-J-H)

Reveals activities, customs, and traditions of the Watussi, an African people characterized by their advanced native culture. Pictures the prince inspecting his cattle and hunting, and shows a ceremonial dance.

HONEYBEE, THE B & W 11 Min. 359
(I-j-h)

Illustrates the life cycle and habits of the honeybee, comparing the functions of the queen, the workers, and the drones. Included are scenes of egg laying, gathering of nectar and pollen, manufacture of honey, cross-pollination of flowers, swarming, and building the new comb.

HOW TO PRODUCE ELECTRIC CURRENT WITH MAGNETS C 11 Min. 360
(I)

Experiments with a magnet and battery show that electricity and magnetism are interrelated and that an electric current can produce magnetic effects.

INDIANS OF EARLY AMERICA C 22 Min. 552
(I-J-H)

Re-creates activities of representative early North American Indian tribes. Includes the ceremonies of the death and succession of an Iroquois chief; scenes of a Sioux buffalo hunt; pottery-making in a pueblo village; and a potlatch cermony.

INSECTS C 11 Min. 361
(i-j-H)

Defines the class of animals known as insects. Identifies the principal characteristics of insect groups represented by butterflies, wasps, beetles, flies, and grasshoppers; and points up differences between true insects and their near relatives. Reveals life cycles, feeding habits, and protective coloring of a variety of insects. Tells how to encourage beneficial insects and combat pests.

INTRODUCING INSECTS C 17 Min. 362
(I-J-h)

Explains how insects differ from other animals and how the main order of insects differ from each other. Uses close-up, slow-motion, and time-lapse photography to reveal the structure and characteristics of insects, and to show different stages in their life cycles.

JAPAN--HARVESTING THE LAND AND SEA C 27 Min. 553
(I-J-H-c)

Examines the human and physical resources of this country and how the Japanese make maximum use of the land and the sea to produce food for the 100 million inhabitants occupying an area smaller than California.

JAPAN--MIRACLE IN ASIA C 30 Min. 554
(I-J-H-c)

Illustrates how Japan, limited by lack of land and natural resources, depends for survival upon trade. Describes her rapid rise to a great industrial nation, emphasizing the steel mills, shipyards, trading companies, universities, laboratories, and atomic energy stations.

JULIUS CAESAR--THE RISE OF THE ROMAN EMPIRE C 22 Min. 555
(i-J-H)

Photographed in a full-scale reproduction of the Roamn Forum, this film explores the significance of Caesar's career in history: his conquests of Gaul, the reforms he instituted and the spreading of Roman commerce and culture.

KANGAROOS B & W 11 Min. 363
(I)

A study of the physical characteristics and behavior of kangaroos in the grasslands of Australia. Shows how the mother cares for and protects her young. Points out that kangaroos must compete with many other animals for survival.

LEARNING ABOUT BEARS B & W 11 Min. 364
(P-i)

The film identifies four species: black bears, brown bears, grizzly bears, and polar bears; shows what bears eat, where they live, and how they behave. Illustrates how a mother bear cares for her cubs and trains them to care for themselves.

LEARNING ABOUT FLOWERS C 11 Min. 365
(P)

Introduces children to a variety of flowering plants and shows flower petals opening and closing. Explains that a vital function in a plant's life cycle is to produce seeds.

LEARNING ABOUT LEAVES C 11 Min. 366
(I)

Identifies pine needles, vegetable leaves, blades of grass, and many deciduous leaves. Demonstrates how leaves synthesize sugar--the basic food of animals--and illustrates the life cycle of leaves.

LEARNING ABOUT SEEDS C 11 Min. 367
(P)

Explains that seed-bearing plants are of many types, many sizes, shapes, colors. Time-lapse photography shows how seeds grow and what they need for growth. Seed dispersal is also illustrated.

LEWIS AND CLARK B & W 17 Min. 556
(I-J-H)

Tells the story of the expedition made by Lewis and Clark to explore the West.

LIFE OF A PLANT C 11 Min. 368
(i-J-h)

Shows steps in the life cycle of a typical flowing plant, the pea. Identifies the roles of roots, stems, leaves, flower, fruit, and seed. Animated drawings reveal the functioning of the various parts of the plant.

LIFE IN THE SEA C 11 Min. 369
(I-J-h)

Divides sea life into three groups: plankton, bottom dwellers and free-swimming animals. Explains that sea life depends upon the process of photosynthesis.

MAGNETIC, ELECTRIC AND GRAVITATIONAL FIELDS C 11 Min. 370
(I)

Evidence of the magnetic field is illustrated by bringing a compass close to a magnet and watching the compass needle. Further evidence of an electric field is demonstrated by rubbing a plastic rod with fur after which it attracts a shoe.

MAKING THE DESERT GREEN B & W 16 Min. 557
(Replaces--IRRIGATION FRAMING) (I)

A case study for the Pacific Southwest region, this film introduces the concept of water management and scientific farming to children. Shows the method of irrigation used in the Coachella Valley, Calif., which has changed this dry soil into the richest farm land acre for acre in the world today.

MAMMALS ARE INTERESTING C 12 Min. 371
(I-j)

Distinguishes characteristics of mammals, from the one-celled protozoa to the chimpanzee. Points out the differences between vertebraes and invertebrates, cold-blooded and warm-blooded; and classifies several well-known groups of mammals--the hoofed mammals and other plant eaters, the carnivores, the rodents, and the primates.

MEDIEVAL KNIGHTS, THE B & W 22 Min. 558
(I-J-H)

Describes the development of the social class of knights in the 12th and 13th centuries and follows one knight as a page, as a squire, and shows the knighting ceremony.

MEDITERRANEAN WORLD, THE B & W 23 Min. 559
(i-J-H)

Explains the significance of the Mediterranean region in the development of Western civilization--from the beginning of early civilization to the present. Also depicts contemporary life in Greece, Italy, and the Arab countries.

METAMORPHOSIS--LIFE STORY OF THE WASP C 14 Min. 372
(I)

Presents the life cycle of a solitary wasp as an example of insect development from egg to larva to pupa to adult. The film illustrates through the use of photomicrography the seldom seen--and rarely photographed--dramatic change in body organization that takes place within the cocoon.

MEXICAN BOY--THE STORY OF PABLO C 22 Min. 206
(p-I)

A Mexican boy tells how he worked to make a wish come true--then found he must choose between having his wish and seeing his family happy. Pablo's story is told in the colorful surroundings of his mountain village.

MIGRATION OF BIRDS--THE CANADA GOOSE C 11 Min. 373
(I-j)

Illustrates the yearly cycle of this migrating bird, presenting facts and theories about the phenomenon of migration. Follows a spring flight to southern Canada, and closes with the migration back to the mild Gulf climate.

MINERALS AND ROCKS--STONES OF THE EARTH C 16 Min. 374
(I-J)

The camera follows two young rock collectors as they gather specimens and make standard identification tests, such as color, streak, hardness, chemical and fracture tests. The film also shows how igneous, sedimentary, and metamorphic rocks were formed, and explains ways of recognizing each.

NAVAJO CHILDREN B & W 11 Min. 560
(p-I-j)

The story of a young Navajo boy and girl as they move with their family from their winter home to a summer home. Also includes a marksmanship contest and a sequence on the weaving of rugs.

NEW ENGLAND FISHERMAN B & W 11 Min. 561
(I-j)

Portrays the grim and adventurous life of the New England fishermen as they fish from a schooner and from a Diesel trawler equipped with machine operated nets. Depicts the preparation of fishing lines and nets; work of the dorymen; and processing of the catch.

THE OREGON TRAIL B & W 25 Min. 562
(I-J-h)

Dramatizes the experiences of a family migrating to Oregon in a wagon train. Stresses the hardships of the journey; the long treks under the prairie sun, the dangerous river crossing, the threat of an Indian attack, and the punishing climb into the mountains.

OUR WEATHER B & W 11 Min. 375 (I-j)

Explains what causes weather, why it changes, how it is forecast, and how it affects our lives. Illustrates the water cycle, major cloud types, and the formation of dew, frost, and snow.

PANAMA CANAL, THE--GATEWAY TO THE WORLD C 14 Min. 563 (I-J-H)

Examines the economic and military value of the canal, reviews its history and the role it played in Latin American and the U. S. history. Shows the operation of the canal--the locks, man-made lakes and ditches, and the function of pilots.

PEOPLE OF GREECE C 14 Min. 564 (I-J-h)

Explores the life of the islands, the mainland, the major cities and describes the efforts of the Greeks to regain a place in world commerce, with shipping, fishing, fruits, tobacco products, and marble exports.

PROTOZOA--ONE-CELLED ANIMALS C 11 Min. 376 (H-c)

The distinguished scientist and photomicrographer, Dr. Roman Visniac, presents a close-up exploration of the world of one-celled animals. Identifies pseudopods, flagellates, and ciliates. Provides striking examples of symbiosis, parasitism, and colonial organizations. Employs unique camera techniques to examine phenomena that have rarely been captured on film.

REMBRANDT VAN RIJN: A SELF PORTRAIT C 27 Min. 10 (J-H-C)

Rembrandt's autobiography is eloquently recorded in his paintings and etchings, most particularly in the more than sixty self-portraits included in this film. They follow his life from his early years as a young, successful painter to those when he is shown as a troubled old man, who had rejected fame and wealth in order to follow his true artistic inclinations.

REPTILES C 14 Min. 377 (i-j-H-c)

Introduces the five orders of reptiles remaining on earth; lizards, turtles, tuataras, crocodilians and serpents. Describes the physical characteristics of these animals, their reproduction processes, feeding habits, and special habitats. Points out some of the ways in which reptiles are useful to man.

ROBIN REDBREAST C 11 Min. 378 (P-i)

Shows how robins build their nests, and incubate their eggs in spring time; how baby robins develop and change, and how the parent birds feed and protect their young.

ROME-CITY ETERNAL C 11 Min. 565
(I-J-H)

Portrays the glories of Rome: the Colosseum; St. Peter's Square; the art treasures of the Basilica of St. Peter; the fountains of the Villa D'Este and the Piazza Navona; the ruins of the Forum and Hadrian's villa.

SCANDINAVIA--NORWAY, SWEDEN, DENMARK C 22 Min. 566
(I-J-H)

Points out how the people of Scandinavia--through cooperative action and industrial development--have created a high standard of living. Shows their physical geography, natural resources, agriculture, commerce, and industry.

SEASHORE LIFE C 11 Min. 379
(p-I-j)

Portrays seashore ecology along the sandy beach, the rock pool, and the mud flat. Shows ways in which representative seashore animals are adapted to survive in their special environments.

SKIPPER LEARNS A LESSON B & W 10 Min. 207
(P)

The story of a girl and her dog, Skipper, who move into a neighborhood where children of different races play together.

SUEZ CANAL, THE--GATEWAY TO WORLD TRADE C 11 Min. 567
(I-J-H)

Reviews the story of the canal's construction, political conflicts over control, and its development as a link in world trade. Operation and maintenance of the canal are shown by a ship on its twelve-hour journey from Port Tewfik to Port Said.

TALE OF THE FIORDS, A B & W 12 Min. 208
(I-j-h)

Trhough Arne Bucksdorff's photography, the film tells the story of a Norwegian girl who runs away from her everyday tasks to explore the rugged beauty of the mountain landscape near her home. A visual study of how mountains and climate affect the Norwegian way of life.

WATER CYCLE, THE B & W 11 Min. 380
(I-j)

Reveals how water evaporates into the atmosphere and then condenses and falls as rain. Also describes seepage, formation of the water table, movements of ground water, and the circulation of water on the earth's surface.

WEST INDIES, THE C 22 Min. 568
(I-J-H)

Vividly contrasts the natural beauty of these islands and the harsh living conditions of a majority of their people. Geography unifies; cultural and political differences divide. Specifically structured to evoke discussion on over-population, scarcity of land and resources, limited educational and employment opportunities.

WHAT PLANTS NEED FOR GROWTH C 11 Min. 381 (P)

Simple laboratory experiments are performed to illustrate the basic needs of plants--for water, light, minerals, air and warmth--and to show how plants react to favorable and unfavorable conditions. Makes use of time-lapse and close-up photography to reveal marvels of plant growth. Encourages children to set up similar experiments and care for plants of their own.

WHY SEASONS CHANGE B & W 11 Min. 382 (I-J)

The film demonstrates that the yearly seasonal changes are caused by the cyclical change in the tilt of the earth's axis relative to the sun. Explains why temperatures change, why the length of the day varies, and why there is a seasonal difference between the Northern and Southern Hemispheres.

ZOO, THE C 11 Min. 209 (P-i)

Takes children on a tour of Brookfield Zoo (in Illinois), one of America's largest and most modern zoos. Here all the animals are displayed in outdoor areas, soem of which simulate the animals' native habitats.