

Photograph and Paper Preservation Lesson Plan

Objective:

The students will learn about the importance of respecting historical photographs, paper and books through concepts of preservation and conservation. Preventive conservation is the protection and careful storage and use of materials to avoid damage. Appropriate storage is one means of preventive conservation. Conservation treatment refers to the expert repair of damaged materials. Preservation is the overarching protection of cultural heritage of any sort. Preservation includes environmental controls, protection from fire and water and proper care and handling of objects.

Grade Level: 3rd - 6th

Michigan Standards and Benchmarks:

Soc I.1.3ee Distinguish among the past, the present and the future

Sci IV.1e1 Classify common objects and substances according to observable attributes/properties.

Sci IV.1e2 Identify properties of materials which make them useful.

Sci IV.2e1 Describe common physical changes in matter – size, shape; melting, freezing (k-2); dissolving, evaporating (3-5).

Relevant Vocabulary Terms:

- **Conservation:** preventive conservation means protection from damage. Conservation treatment is the correct repair of a damaged object.
- **Preservation:** maintaining and protecting against damage and destruction

Activity 1: Oil Picture

Materials Needed:

Camera

Rag

Vegetable Oil (or any oil-based substance)

Procedure:

1. Divide the class into groups of two or three students.
2. Take a class photo and develop enough copies for each group to have one photo.
3. Place several drops of the oil onto the rag.
4. Rub the oil onto the right half of the photograph.
5. Let the picture sit for 3-4 days.
6. Observe and record results.

Discussion Questions:

1. What happened to the right half of the photograph?
2. Why do you think this happened?
3. How does this relate to the preservation of photographs?
4. In terms of the preservation of photographs, what does the oil represent?
5. How should we handle photographs to keep them from being stained?
6. Do any students have old photographs that show changes through time?
7. Why are photographs historically significant?
8. Why is it important to preserve our historical photographs?

Activity 2: Photograph Fading

Materials:

Camera

Procedure:

1. Divide the class into groups of two or three students.
2. Take a class photo and develop enough copies for each group to have two photos.
3. Move one picture into direct sunlight.
4. Move the other picture into a dark area, or store face down out of sunlight.
5. Wait 5-6 days.
6. Compare the two photographs.
7. Observe and record results.

Discussion Questions:

1. What happened to the photograph that was in the sun?
2. What happened to the photograph that was in the dark?
3. Why do you think this happened?
4. How does this relate to the preservation of photographs?
5. Why are photographs historically significant?
6. Why is it important to preserve our historical photographs?

Activity 3: Newspaper Fading

Materials:

Newspaper

Construction Paper (2" x 2")

Procedure:

1. Divide the class into groups of two or three students.
2. Provide each group of students with a piece of newspaper (5" x 5") and a 2" x 2" square of construction paper.
3. Place the construction paper in the center of the newspaper.
4. Set the newspaper, with construction paper, into direct sunlight.
5. Wait 5-6 days (It is important that the construction paper is not moved).

6. Observe and record results.

Discussion Questions:

1. What happened to the part of the newspaper that was under the construction paper?
2. What happened to the part of the newspaper that was not covered by the construction paper?
3. Why do you think this happened?
4. What happened to the part of the construction paper that was exposed to the sunlight?
5. What does the side of the construction paper that was touching the photograph look like?
6. How does this relate to the preservation of paper?
7. Why are paper and books historically significant?
8. Why is it important to preserve our historical books?

Activity 4: Chips, Popcorn and the News

Materials Needed:

Newspaper
Potato Chips
Butter Popcorn

Procedure:

1. Divide the class into groups of two or three students.
2. Provide each group of students with two chips and several pieces of popcorn.
3. Provide each group of students with a piece of newspaper (5" x 5").
4. Place the chips and popcorn onto the newspaper.
5. Let the newspaper, chips and popcorn sit overnight.
6. Observe and record results.

Discussion Questions:

1. What happened to the newspaper when it touched the popcorn and chips?
2. Why do you think this happened?
3. How does this relate to the preservation of paper?
4. In terms of the preservation of paper, what do the chips and peanuts represent?
5. What ingredient does the chips and peanuts have in them that make them harmful to the newspaper?
6. Why are books historically significant?
7. Why is it important to preserve our historical books?

Activity 5: Wet Paper

Materials:

Large tray
Water
11 x 17 sheet of construction paper
Markers
Pens
Chalk
Pencils
Crayons
Paint

Procedure:

1. Fill the large tray with water.
2. Have each student print their name on the construction paper using one of the writing utensils listed under materials.
3. Submerge the construction paper underwater.
4. Leave the construction paper in the water for 2-3 days.
5. Have students make predictions about what they think is going to happen to the construction paper and the print when it sits in the water.
6. Observe and record results.

Discussion Questions:

1. What happened to the construction paper when it was left under water?
2. Why do you think this happened?
3. What happened to the printing on the construction paper when it was left under water?
4. Why do you think this happened?
5. How do the results compare to the students predictions?
6. Since books are composed of many pieces of paper, how does this activity relate to book preservation?
7. How should we care for books and paper?
8. How should we protect paper, which forms books, from elements such as rain and snow?
9. Why are books historically significant?
10. Why is it important to preserve our historical books?

Selected Bibliography:

Care and Handling of Photographs

International Federation of Library Associations and Institutions. Care, Handling, and Storage of Photographs.

<http://palimpsest.stanford.edu/byauth/roosa/roosa1.html>

The American Institute for Conservation of Historic & Artistic Works. Caring For Your Photographs.

<http://aic.stanford.edu/library/online/brochures/photos.html>

Care and Handling of Paper

Library of Congress. Preserving Works on Paper: Manuscripts, Drawings, Prints, Posters, Maps, Documents. <http://lcweb.loc.gov/preserv/care/paper.html>

Dorning, David and Stephen Ball. Conservation of Books.
<http://www.resource.gov.uk/information/advice/conserv02.asp>

Selected Bibliography:

Bookmaking

Author: Diehn, Gwen

Year: 1998

Title: Making books that fly, fold, wrap, hide, pop up, twist, and turn: books for kids to make

City: Asheville, N.C.

Publisher: Lark Books

Number of Pages: 96

Edition: 1st

ISBN: 1579900232 1579903266 (pbk.) 18873740232 LCCN: 97-41037

Abstract: Presents instructions for making various kinds of books including those that carry messages across space and time as well as those that save words, ideas, and pictures.

Keywords: Descriptor: Toy and movable books -- Design.
Handicraft.

Toy and movable books -- Design.

Notes: Class Descriptors: LC: Z1033.T68; Dewey: 736/.98

Author: Doggett, Sue

Year: 1998

Title: Bookworks: books, memory and photo albums, journals, and diaries made by hand

City: New York

Publisher: Watson-Guption Publications

Number of Pages: 144

ISBN: 0823004910 (cloth) LCCN: 98-22960

Keywords: Descriptor: Bookbinding.

Bookbinding -- United States.

Notes: Class Descriptors: LC: Z271; Dewey: 686.3

Author: Gaylord, Susan Kapuscinski

Year: 1994

Title: Multicultural books to make and share: easy-to-make, authentic, cross-curricular

Series Title: Instructor books;
City: New York
Publisher: Scholastic Professional Books
Number of Pages: 136
ISBN: 0590489216 LCCN: 94-234511
Keywords: Descriptor: Book design -- Study and teaching (Elementary)
Multicultural education -- Activity programs.
Toy and movable books -- Design -- Study and teaching (Elementary)
Notes: English
Includes bibliographical references. Class Descriptors: LC: Z116.A3; Dewey: 372.13/2

Author: Johnson, Paul
Year: 2000
Title: Making books
City: London
Publisher: A. & C. Black
Number of Pages: 64
ISBN: 071365077X
Keywords: Descriptor: Book design -- Juvenile literature.
Bookbinding -- Juvenile literature. Class Descriptors: Dewey: 686.3

Author: Johnson, Paul
Year: 1993
Title: Literacy through the book arts
Place Published: Portsmouth, NH
Publisher: Heinemann
ISBN/ISSN: 0435087665; LCCN 93-18134
Keywords: Descriptor: Activity programs in education -- Great Britain.
Book design -- Study and teaching (Elementary) -- Great Britain.
Child artists.
Children -- Great Britain -- Books and reading.
Note(s): Includes bibliographical references (p. 155-156).
Class Descriptors: LC: LB1027.25; Dewey: 372.5/2
Notes: English

Author: Johnson, Paul
Year: 1992
Title: A book of one's own: developing literacy through making books
Place Published: Portsmouth, N.H.
Publisher: Heinemann
ISBN/ISSN: 0435087088; LCCN 91-28908
Keywords: Descriptor: Activity programs in education -- Great Britain --
Handbooks, manuals, etc.
Book design -- Study and teaching (Elementary) -- Great Britain -- Handbooks,
manuals, etc.

Child authors -- Great Britain.

Note(s): Originally published: Sevenoaks, Kent, England: Hodder and Stoughton, 1990./ Includes bibliographical references (p. 119).

Class Descriptors: LC: LB1027.25; Dewey: 372.13/078

Author: Liddle, Matthew

Year: 1993

Title: The bookmaking handbook

City: Philadelphia, Penn.

Publisher: Running Press

Number of Pages: 63

ISBN: 1561383376 LCCN: 93-83466

Keywords: Descriptor: Bookbinding.
Books.

Papermaking -- History -- Juvenile literature.

Notes: Class Descriptors: Dewey: 686.3/LIDDLE Responsibility: Matthew Liddle.

Author: LaPlantz, Shereen

Year: 1995

Title: Cover to cover: creative techniques for making beautiful books, journals & albums

City: Asheville, N.C.

Publisher: Lark Books

Number of Pages: 144

ISBN: 093727481X LCCN: 94-24439

Keywords: Descriptor: Bookbinding.

Notes: Class Descriptors: LC: Z271; Dewey: 686.3

Author: O'Brien-Palmer, Michelle; Rubin, Shannon

Year: 1992

Title: Book-write: a creative bookmaking guide for young authors

City: Kirkland, Wash.

Publisher: MicNik Publications

Number of Pages: 117

ISBN: 1879235013 (pbk.): LCCN: 91-68412

Keywords: Descriptor: Publishers and publishing -- Juvenile literature.

Bookbinding -- Juvenile literature.

Authorship -- Juvenile literature.

Class Descriptors: LC: Z286.C48; Dewey: 808.02

Author: Pluckrose, Henry Arthur; Fairclough, Chris

Year: 1992

Title: Book craft

Series Title: Fresh start; Variation: Fresh start (London, England)

City: New York

Publisher: F. Watts

Number of Pages: 40

ISBN: 0531141691 LCCN: 91-40501

Abstract: Provides step-by-step instructions for putting together several kinds of books by hand.

Keywords: Descriptor: Books -- Juvenile literature.

Handicraft -- Juvenile literature.

Bookbinding -- Juvenile literature.

Bookbinding.

Books.

Notes: Includes index. Class Descriptors: LC: Z4.Z9; Dewey: 686

Author: Purdy, Susan Gold

Year: 1973

Title: Books for you to make

Publisher: Philadelphia, Lippincott

Number of Pages: 96

Edition: 1st

ISBN: 0397313187 (lib. bdg.) LCCN: 73-4568

Abstract: Step-by-step instructions for making up and binding a book. Includes several binding techniques.

Keywords: Descriptor: Books -- Juvenile literature.

Bookbinding -- Juvenile literature.

Books.

Bookbinding.

Class Descriptors: LC: Z4.Z9; Dewey: 686

Author: Shoen, Harriet Hetta

Year: 1934

Title: Let's make a book

Publisher: New York

ISBN: LCCN: 34-31583

Keywords: Descriptor: Bookbinding -- Juvenile literature.

Notes: Class Descriptors: LC: Z271; Dewey: 686

For additional bibliography and abstract resources also see:

Author: Drewes, Jeanne and Julie Page (eds.)

Year: 1997

Title: Promoting Preservation Awareness in Libraries, A Sourcebook for Academic, Public, School, and Special Collections.

City: Westport

Publisher: Greenwood Press

ISBN: 0313302065

Keywords: Library materials – Conservation and restoration – Study and teaching – United States

Class Descriptors: LC: Z701.3.E38; Dewey: 025.8/4;

Papermaking

Author: Doney, Meryl

Year: 1997

Title: Papercraft

Series Title: World crafts; Variation: Doney, Meryl, 1942-; World crafts.

City: New York

Publisher: Franklin Watts

Number of Pages: 32

Edition: 1st American

ISBN: 0531144461 LCCN: 96-35495

Abstract: Information about the history of paper and how it has been used around the world accompanies directions for activities that include making different types of papers and objects such as flowers, trays, lanterns, and more from paper.

Keywords: Descriptor: Paper work -- Juvenile literature.

Paper, Handmade -- Juvenile literature.

Decorative paper -- Juvenile literature.

Papermaking.

Paper work.

Handicraft.

Notes: Class Descriptors: LC: TT870; Dewey: 745.54

Author: Llewellyn, Claire

Year: 2002

Title: Paper

Series Title: Material world; Variation: Material world (Franklin Watts)

City: New York

Publisher: Franklin Watts

Number of Pages: 30

Edition: 1st American

ISBN: 0531146294 0531148319 (pbk.) LCCN: 2001-24873

Abstract: Explores the history, composition, production, and uses of paper.

Keywords: Descriptor: Papermaking -- History -- Juvenile literature.

Paper.

Class Descriptors: LC: TS1105.5; Dewey: 676/.2

Author: Marshall, Pam

Year: 2003

Title: From tree to paper

Series Title: Start to finish; Variation: Start to finish (Minneapolis, Minn.)

City: Minneapolis

Publisher: Lerner Publications Co.

Number of Pages: 24

ISBN: 082250720X (acid-free paper) LCCN: 2001-7206

Abstract: Introduces the process through which trees are turned into paper.

Keywords: Descriptor: Paper -- Juvenile literature.

Papermaking -- Juvenile literature.

Paper.

Papermaking. Notes: Class Descriptors: LC: TS1105.5; Dewey: 676

Author: Watson, David

Year: 2000

Title: Papermaking

Series Title: Step-by-step;

City: Tunbridge Wells

Publisher: Search

Number of Pages: 32

ISBN: 0855329130

Keywords: Descriptor: Papermaking -- Juvenile literature.

Paper, Handmade -- Juvenile literature.

Class Descriptors: Dewey: 745.54

Author: Wilkinson, Beth

Year: 1997

Title: Papermaking for kids: simple steps to handcrafted paper

City: Salt Lake City

Publisher: Gibbs Smith

Number of Pages: 48

Edition: 1st

ISBN: 0879058277 (pbk.) LCCN: 97-6908

Keywords: Descriptor: Papermaking -- Juvenile literature.

Paper, Handmade -- Juvenile literature.

Notes: Class Descriptors: LC: TS1105.5; Dewey: 676/.22

Photography

Author: Freeman, Tony

Year: 1983

Title: Photography

Series Title: A New true book;

City: Chicago

Publisher: Childrens Press

Number of Pages: 45

ISBN: 0516017047 (lib. bdg.) LCCN: 83-7359

Abstract: Briefly describes the basic principles of photography, how a camera works, the different types of cameras and films, how film is developed, and techniques for taking pictures. Also discusses careers in photography.

Keywords: Descriptor: Photography -- Juvenile literature.

Photography.

Notes: English

Includes index. Class Descriptors: LC: TR149; Dewey: 770 Material Type: Juvenile (no specific ages) (jau)

Author: Haslam, Andrew; Senior, Kathryn; Barnes, Jon

Year: 1996

Title: Photography

Series Title: Make it work!

City: Chicago, IL

Publisher: World Book/Two-Can

Number of Pages: 48

ISBN: 0716617315 (hbk.): LCCN: 96-60453

Abstract: Explores photography from simple pinhole cameras to cameras that use film. It explains how different parts of a camera work and shows how to process and develop your own photographs.

Keywords: Descriptor: Photography -- Experiments -- Juvenile literature.

Photography -- Study and teaching -- Activity programs -- Juvenile literature.

Cameras -- Juvenile literature.

Photography -- Experiments.

Experiments.

Notes: English

Includes index. Class Descriptors: LC: TR149; Dewey: 771. Material Type: Pre-adolescent (ejh)

Author: Laycock, George

Year: 1979

Title: The complete beginner's guide to photography

Series Title: The Complete beginner's guide series;

City: Garden City, N.Y.

Publisher: Doubleday

Edition: 1st

ISBN: 0385132646: 0385132654 (lib. bdg.) LCCN: 78-1207

Abstract: Discusses the selection and care of cameras and equipment, techniques of photography, development of film, and photography as a business.

Keywords: Descriptor: Photography -- Juvenile literature.

Photography.

Includes index. Class Descriptors: LC: TR149; Dewey: 770/.28 Material Type:

Juvenile (no specific ages) (jau)

Author: Noren, Catherine

Year: 1983

Title: The way we looked: the meaning and magic of family photographs

City: New York

Publisher: Dutton

Number of Pages: 116

Edition: 1st

ISBN: 0525667385 LCCN: 82-9682

Abstract: Discusses the importance of family photographs as a means of understanding the passage of time, establishing ties with ancestors, and varying ways of recording important events in family life. Includes suggestions for collecting photographs and putting together an album.

Keywords: Descriptor: Photography of families -- Juvenile literature.

Photography of families.

Photography.

Notes: English

"Lodestar books."/ Includes index. Class Descriptors: LC: TR681.F28; Dewey: 778.9/2 Material Type: Juvenile (no specific ages) (jau)