

## Handmade Paper in the Philippines

*TEACHER: Take a close look at this photo. Do you know what this is?*

*STUDENTS: Paper, cloth, etc.*

*These are pieces of paper. What makes them different than the paper we use in our classroom?*

*It has stuff in it; it looks bumpy; it has a picture on it; it is different colors; etc.*

*This paper is different, because it has been handmade. What does "handmade" mean?*

*People made it using their hands*

*Handmade means that something was made by someone's hands, and not by a machine. Most of the paper we use at school is made by machines in a factory. Paper has been made for over 1,000 years, but the first pieces of paper were made by hand and not by machines. This piece of paper was made by hand in the Philippines. Do you know which country invented paper?*

*USA, Philippines, Egypt, China, etc.*

*Paper was first invented in the country of China. Thousands of years ago people started drawing pictures and writing symbols on rocks, pottery, walls, and many other things in their environment. After many years, pictures started to represent words, and certain symbols turned into alphabets. People continued to find different ways to record their ideas in writing. Sometimes they carved into clay, stone, bone, or dried plant material, like papyrus and palm leaves. All of these surfaces worked for writing, but the Chinese invented a better material, known as paper. The first paper in China was made by shredding, pounding, and mixing together old rags, bark, fishing nets, and plant fiber. It was soaked in water until it was softened and then pressed into sheets using a screen.*

*The people who made the paper in this photo are from the Philippines. They made it almost the same way that the people in China did over a thousand years ago. The paper that you write on in your classroom isn't made from old fishing nets and rags. Do you know what most factories use to make writing paper today?*

*Trees, plants, etc.*

*About 150 years ago, it became easier and cheaper to make paper from trees than from rags and other materials. Trees were cut, made into "wood pulp," and bleached to make smooth, even, white sheets of paper. Making paper from wood pulp is a great idea, but it has also caused some problems. Why would making paper from trees, instead of recycled materials (like rags and old nets), be a problem?*

People started cutting down more trees, etc.

*Using wood pulp to make paper means that more trees need to be cut down. Some companies have done a good job of planting new trees when they cut old trees down to make paper. But, other companies have not managed their forests well. In the Philippines, many trees are being cut for timber, charcoal, paper, and other products. Some people have not done a good job of planting new trees, so many of the forests are disappearing. This is called "deforestation." To help stop deforestation, a group of women in the Philippines started making paper like the Chinese did over a thousand years ago. They decided to make pulp from recycled materials and crop waste from their rice paddies. Instead of making the paper with machines, they use simple tools, and do it all by hand. How does making paper this way help the environment?*

New trees don't get cut down, machines use electricity/gas, etc.

*Making paper by hand out of recycled or reused materials is good for the environment in many ways. New trees don't get cut down, crop waste gets reused instead of burned, and no electricity is wasted. The farmers who are making the paper in their homes are also happy, because they can sell it and make extra money.*

*Not all paper made in factories hurts the environment. In fact, some paper companies now make paper that is 100% recycled from old paper, instead of from new trees. Those companies get the old paper they need from recycling bins, like the one we have in our classroom. Every time you remember to put your used paper in the recycling bin, you are helping to protect forests! When you buy things that are made from paper, you can have your family help you check to see if it was made from recycled paper or new trees. Buying recycled paper is better for the environment.*

*Look closely again at the picture. This paper is made using crop waste from rice paddies. Although it is beautiful and good for the environment, do you think it would be easy to use for writing? Why?*

No, it is too bumpy, etc.

*The paper in the picture is probably too bumpy for most writing, but it can be used in other ways. What are other ways we use paper?*

We make artwork; wrap presents; make cards; make bags; etc.

*Bumpy paper can be used to make artwork, cards, wrapping paper, wallpaper, bags, boxes, picture frames, book covers, and much, much more! Share with the person next to you what you would make from a piece of paper like the one in the picture.*

(Allow kids a moment to share their answers.)

*It sounds like you all have great ideas. Paper is amazing!*

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## **Kindergarten Standards:**

### **NYS Common Core Kindergarten Social Studies Standards**

- K.2.b Cultures include traditions, beliefs, and shared values and ideas generally accepted by a particular group of people.
- K.2.c Children, families, and communities from different cultures all share some common characteristics, but also have specific differences which make them unique.
- K.9.a Children, families, and communities of today can be compared with those in the past.

### **Kindergarten ELA Power NYSCCLS (ICSD Power Standards in Bold)**

#### *Reading Standards for Informational Text: Kindergarten*

- **Integration and Knowledge of Ideas**
  - 7. With prompting and support, describe the relationship between illustrations and the text in which they appear (e.g., what person, place, thing, or idea in the text an illustration depicts).**

#### *Speaking and Listening Standards: Kindergarten*

- **Comprehension and Collaboration**
  - 1. Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.**
    - a. Follow agreed-upon rules for discussions (e.g., listening to others and taking turns speaking about the topics and texts under discussion).**
    - b. Continue a conversation through multiple exchanges.**
    - c. Seek to understand and communicate with individuals from different cultural backgrounds.**
  2. Confirm understanding of a text read aloud or information presented orally or through other media by asking and answering questions about key details and requesting clarification if something is not understood.
  - 3. Ask and answer questions in order to seek help, get information, or clarify something that is not understood.**
- **Presentation of Knowledge and Ideas**
  - 6. Speak audibly and express thoughts, feelings, and ideas clearly.**

#### *Language Standards: Kindergarten*

- **Vocabulary Acquisition and Use**
  - 6. Use words and phrases acquired through conversations, reading and being read to, and responding to texts.**

### **Next Generation Science Standards for Kindergarten**

#### *K-ESS2 Earth's Systems*

- ESS2.E: Biogeology
  1. Plants and animals can change their environment. (K-ESS2-2)
- ESS3.C: Human Impacts on Earth Systems
  1. Things that people do to live comfortably can affect the world around them. But they can make choices that reduce their impacts on the land, water, air, and other living things. (secondary to K-ESS2-2)

#### *K-ESS3 Earth and Human Activity*

- ESS3.A: Natural Resources
  1. Living things need water, air, and resources from the land, and they live in places that have the things they need. Humans use natural resources for everything they do. (K-ESS3-1)
- ETS1.A: Defining and Delimiting an Engineering Problem
  1. Asking questions, making observations, and gathering information are helpful in thinking about problems. (secondary to K-ESS3-2)