Spinning Coir in India

Note: Having a whole coconut/photo of a coconut to show would be helpful in this lesson.

TEACHER: Look carefully at this photo. Can you tell what this is?

STUDENTS: Rope

This is a pile of twisted rope. I wouldn't want to try to untangle it! Look closely. Can you tell what this rope is made from?

Hair, grass, coconut fiber, etc.

This rope is made from coconuts! (Show what a coconut looks like.) Do you know where coconuts grow?

In the ground, on bushes, on trees, etc.

Coconuts grow on trees. They are a fruit, like apples, and can be picked. Coconut trees are very high. Do you know how people usually pick coconuts?

Use a ladder; throw something at them to knock them down; etc.

Coconuts can be harvested in many ways. Often, someone will climb up the trunk of the tree and pick one growing at the top. Some people do not like to climb that high, so they actually train monkeys to go up in the trees and pick the coconuts for them. The fastest way to pick coconuts is by tying a knife to a long pole and using it to cut the coconuts down from the branches. Have you ever seen coconuts growing on a tree in New York?

No

Why don't we have coconuts growing on trees outside of our school?

It is too cold, etc.

Coconuts grow on palm trees. Coconut palms only like to grow in warm weather. They mostly grow in tropical countries with a lot of sunshine. One place in the world that grows a lot of coconuts is India. The rope that you see in this picture comes from coconuts picked in India. Do you know what a coconut looks like? Use your hands to show the shape of a coconut.

(Allow the kids to make circles with their hands. Correct them if they have the wrong shape.)

You're correct! A coconut grows in the shape of a sphere or circle. It is round and very hard. The rope in the picture doesn't look anything like a coconut. How do you think the people in India turned the coconut into rope?

They broke it into pieces; cut it; peeled it; etc.

In New York, we usually see coconuts in the grocery store that are round, hard, dark brown on the outside, and white on the inside. But, did you know that what we buy is only part of the whole coconut? Coconuts actually have three layers.

The outermost layer is smooth and green. The middle layer is soft and stringy. And the innermost layer has a hard, brown "shell" and is white and fleshy on the inside. Which layer of the coconut do you think we eat?

The inside layer; the white fleshy part; etc.

We like to eat the seed. The seed is the white, inside part of the coconut that has a hard brown shell, tasty white flesh, and a liquid, called "coconut milk."

The other two layers surround the seed and protect it when it falls high from the tree and hits the ground. They even help it float if it falls in the water! The soft middle layer is called "coir" (pronounced like "choir"). The coir looks a lot like little pieces of string or hair. It is mostly waterproof, flexible, and very strong. This is the part that people use to make rope, like you see in the photo.

People all over the world, have found ways to use coir. How would you use a piece of coir rope? Turn to the person next to you and share your ideas.

(Have the kids turn to their neighbor and share their ideas. They should give you a thumbs up when they have finished sharing.)

Great! It sounds like lots of you have wonderful ideas. Did you know that long ago, people even used coir to tie pieces of wood together to make boats? The coir worked just like nails, and made the ships tough enough to sail across the ocean. There are still people today who build boats like this in India, the Pacific Islands, East Africa, the Middle East and other tropical places.

Coir is not only used for making rope, it is used in lots of other ways as well. Coir is used for making doormats, stuffing for furniture and mattresses, gardening, and much, much more!

Who knew that coconuts were so useful?

Note: Scientifically speaking, palms are not considered true trees. However, in many cultures around the world (including India) palms are commonly referred to and treated as trees.

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-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)

NYS K Math Standards

Identify and describe shapes

• CCSS.Math.Content.K.G.A.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as *above*, *below*, *beside*, *in front of*, *behind*, and *next to*.