THE PAPER GIRLS SHOW

EDUCATIONAL GUIDE

EPISODE 3: MICE TO MEET YOU

TOPICS INCLUDE: PROTECTION OF ANIMAL HABITATS

EPISODE SYNOPSIS

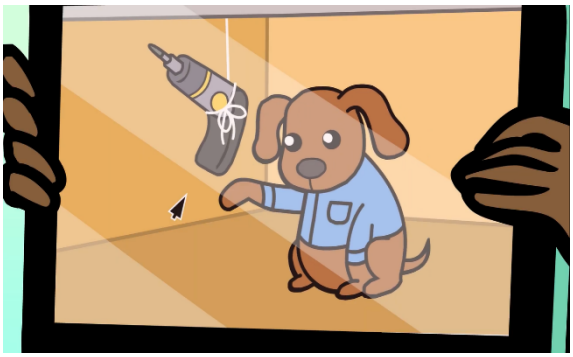
When Stax has a mouse problem, Caily and Reese head to Confetti to see if they can invent a solution to safely drive the mice away.

FEATURED STEAM TOPICS

BIG IDEA – Animals and humans share the world and humans can help to protect their habitats and make the world safe for all animals.

EXPLANATION FOR CHILDREN:

People and animals co-exist together, and humans have an important role in protecting and caring for animals. The best habitat (home) for different kinds of animals are unique to their needs.



CORE CURRICULAR AIMS, N.G.S.S. AND RELATED CONTENT STANDARDS IN THIS EPISODE

The standards and curricular aims listed below are linked to this episode's extension activities. Each activity is designed to promote children's thinking and action in earth science and engineering design as they explore the connections between animals, habitats, and design.

Science: Understanding Ecosystems

All animals need food to live and grow. They obtain their food from plants or from other animals. Plants need water and light to live and grow.

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.

Source: NGSS Lead States. 2013. Next Generation Science Standards: For States, By States. Washington, DC: The National Academies Press.

Engineering: Design

Ask questions, make observations, and gather information about a situation people was to change to define a simple problem that can be solved through the development of a new or improved object or tool.

Develop a simple sketch, drawing, or physical model to illustrate how the shape of an object helps it function as needed to solve a given problem.

Source: NGSS Lead States. 2013. Next Generation Science Standards: For States, By States. Washington, DC: The National Academies Press.

ACTIVITY EXTENSIONS FOR EPISODE TOPICS

In this episode, children are introduced to the idea that used paper can be folded into new and different shapes and objects. Below is a brief listing of activities that invite children to explore and learn about animals. In each activity the emphasis is on the process of thinking, design, and making rather than a perfect end product as children take the lead in their own investigations. Parents and teachers can support children in their work by asking prompting questions such as: How can people help and protect animals?; What do you want to learn more about?; What's an important thing for animal survival?; In what kind of environment does your animal live?

1. Shape Mouse

In this simple extension activity, your students can cut paper shapes to create a shape mouse. This is an open-ended activity that encourages them to explore shape and how to add shapes together to create a unique mouse. You'll want to avoid providing precut shapes for the children as they will learn and experience more by working to create their own paper shapes.

They can also use crayons or markers to add color and detail to their design. This activity pairs well with the children's book, Mouse Shapes by Ellen Stohl Walsh.

PROMPTING QUESTIONS

- What shapes have you used?
- How do you know it is a "shape name"?
- Could you use different shapes to create your mouse?; What shapes would you need if you were going to make a giraffe?

2. Animal Research

This extension activity will encourage students to work in pairs or small groups to choose an animal to research and learn more about. Depending upon the age and needs of your students, you can invite them to explore virtual resources or use books to gather their information. This type of experience works best when students create a drawing, story, or give a verbal overview of what they've uncovered. Sharing their information with others will help to support their understandings as well as build the knowledge of the rest of the class through sharing.

PROMPTING QUESTIONS

- Tell me about the most interesting animal you saw today?; Where does it live?
- What does your animal need to survive?
- What other kinds of animals are similar to yours?; How are they similar?

Safe and Reliable Websites with information, videos, images, and games for young children:

San Diego Zoo – Animals and Plants webpage:
https://zoo.sandiegozoo.org/animals-plants

Smithsonian's National Zoo – Animals A-Z webpage:
https://nationalzoo.si.edu/animals/list

London Zoo – Habitats webpage:
https://www.zsl.org/conservation/habitats

Children's Reference Books:

Tall Tall Tree: A Nature Book for Kids About Forest Habitats by Anthony Fredericks and Chad Wallace (Dawn Publications)

Many Biomes, One Earth by Sneed Collard and James Needham (Charlesbridge Publishers)

I See a Kookaburra!: Discovering Animal Habitats Around the World by Steve Jenkins and Robin Page (HMH Books for Young Readers)

3. Imagine an Animal and Create Its Habitat

In this extension activity, you can invite your students to imagine their own unique, never before seen, animal and create a habitat drawing or collage. The aim of this experience is for them to think through what their animal needs in order to survive and what type of environment is best. This type of experience allows children to combine what they know about animals into an imaginative experience. Better known as zoomorphic animals, these mythical creatures appear in the stories of many cultures and typically consist of various elements of real animals put together in novel ways.

One common example of a zoomorphic creature is a gryphon. A children's book that pairs well with this activity and can introduce your students to such animals is *If I Had a Gryphon* by Vikki VanSickle.

PROMPTING QUESTIONS

- Tell me about your zoomorphic creature?; Which animals are a part of it?
- How does your zoomorphic creature move?; Does it run, fly, or swim?
- What makes your zoomorphic creature special?

ABOUT Angela Eckhoff, PhD

Angela Eckhoff, is an Associate Professor of Teaching and Learning and the Director of the Virginia Early Childhood Policy Center at Old Dominion University. Dr. Eckhoff studies the role of creativity in child development and learning, arts-based research and pedagogical practices, and early STEAM learning in both classroom and museum settings.

She is a co-editor of the Full STEAM Ahead column for Teaching Young Children from NAEYC as well as the author of ‘Provoking Curiosity” and the four-book “Creative Investigations” series from Gryphon House Inc. Dr. Eckhoff holds a dual PhD from the University of Colorado–Boulder in educational psychology and cognitive science.