ARIZONA SCIENCE CENTER
Never stop wondering.
Never stop imagining.

Lions, Tigers & Monsters, Oh My!

Week 4: Grades K-2

Day	Topics	Related Standards
1	A Monsterous Task!	Develop and use models about how living things use resources to grow and survive; design and evaluate habitats for organisms using earth materials.
2	A Place to Call Home	
3	It's Dinner Time!	Obtain, analyze, and communicate evidence that organisms need a source of energy, air, water, and certain temperature conditions to survive.
4	Changing Plans!	Observe, ask questions, and explain how specialized structures found on a variety of plants and animals (including humans) help them sense and respond to their environment.
5	Ladies & Gentlemen, I Present to You...	

Lions, Tigers & Monsters, Oh My!

Day 1: A Monsterous Task!

Teacher/Parent Background:

Lions, tigers and monsters? Yes, you read that correctly; monsters! By creating a unique monster, students will apply their understanding of the needs of living things and their roles in their environments. All animals and plants (including monsters!) body parts that help them survive, grow and behave in their environments.

Overview:

In this activity, students will begin to imagine their unique monster by brainstorming what the monster would look like.

Related Standards:

- Develop and use models about how living things use resources to grow and survive; design and evaluate habitats for organisms using earth materials.

Key Terms:

- Organism- A single living thing
- Basic Needs- Things that a living thing needs to survive
- Survive- Stay alive

Materials List:

- Pen/pencil
- Possible visual representation resources:
    - Colored pencils/crayons/markers
    - Internet access for images/pictures
- Internet access - optional for *Extensions*
- *Student Resources - Pages 5-7*
    - *Monster Project Details*
    - *Animal Match-Up Cards*
    - *My Monster's Portrait - Portfolio Page 1*

Activity Description:

- Introduce students to the project goal:
    - As we have learned, animals and plants around us need certain things to help them survive and grow in their environments! All animals and plants have body parts that help them carry out certain jobs to survive.
        - For example, dogs have strong teeth to help them eat hard things and plants have roots that help them soak up water.
        - Or, another example might be that we have lungs that help us breathe on land whereas fish have gills that help them breathe in water.
    - We are soon going to engage in a week-long project to apply what we know about how organisms survive in their environments by creating a brand-new, very unique animal...a monster!
        - Review the *Monster Project Details* with students.
        - Encourage students to ask clarifying questions about the project details.
        - Inform students that the "report" will be in the form of a portfolio that they work towards each day; at the end, each of their "pages" will build the "report".
        - Inform students that they will have time on Day 5 to build a 3D model (physical representation) of their monster, as they may make changes to their monster throughout the week.
- Today, you are going to brainstorm the structures of your monster by answering the following questions:
    - What is your monster? What is it's name?
    - What does it look like?
    - How does it move? How does it eat?
- To help you get started, we are going to explore examples of different animal body parts!
    - Engage students in the following activity:
        - Using the *Animal Match-Up Cards*, pair-up the body parts that best match the descriptions of how the body parts help the animals.
            - Duck feet: My two webbed feet help me swim and live in water-based environments.
            - Owl wings: My two wings help me move from place to place in search of shelter and food.
            - Cat paw/claws: My four paws and claws help me run and climb to escape predators and eat my food.
            - Eagle beak: My sharp, hooked beak helps me catch and eat my prey with ease, sometimes in the air!
            - Dog teeth: My sharp teeth help me protect myself when in danger and eat my food.

        - Grasshopper mouth: My tong-like mouth helps me crunch and chew food, like leaves.
- After looking through a few examples of animal body parts and their jobs, let's revisit your monster! Remember, today you are brainstorming what your monster will look like:
    - What is your monster? What is it's name?
    - What does it look like? What are its body parts?
    - How does it move? How does it eat?
        - Assist and monitor as they begin brainstorming by guiding them through the *My Monster's Portrait - Portfolio Page 1*.
        - Encourage students to use colored pencils/crayons/markers to help them illustrate their monster.

Closure:

- After the activity has concluded, engage in a discussion with students:
    - How would you best describe your monster?
    - What body parts does your monster have that help it survive?
    - What else might we need to know about your monster, as the project continues?

Extensions:

Continue the Project!

- Encourage students to research (example source 1 & example source 2) animal behaviorists or zoologists to learn more about what they do. For example, ask students to research:
    - What does an animal behaviorist/zoologist do?
    - What kind of training do they need?
    - What carrer opportunities do they have?

Student Resources

Monster Project Details

Dear Student,

As a local animal behaviorist, my team and I are interested in working with you to learn more about your newly discovered monster! My sources have informed me that you are currently in the process of identifying and observing this new creature. You have been tasked with presenting your findings to my team as soon as possible, so that we may study this monster as well. Please closely follow all the project details outlined below:

1. **Your project report must include a description and visual representation of the following:**
    a. The main body parts of the monster.
    b. Where the monster lives
    c. How your monster eats, what it eats and what eats it.
    d. How your monster responds to changes in its environment.

2. **You may use the following resources to create visual representations:**
    a. Drawings
    b. Pictures/videos
    c. 3D models

3. **Your project report must include the following observation-based details:**
    a. The place to see the monster.
    b. The best time of day/night to see the monster.

My team eagerly awaits your report. Best of luck out there!

Dr. Lilly Padton

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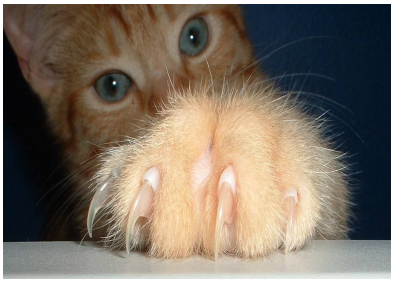
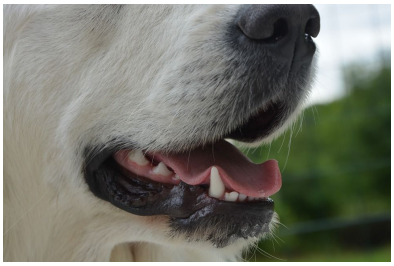
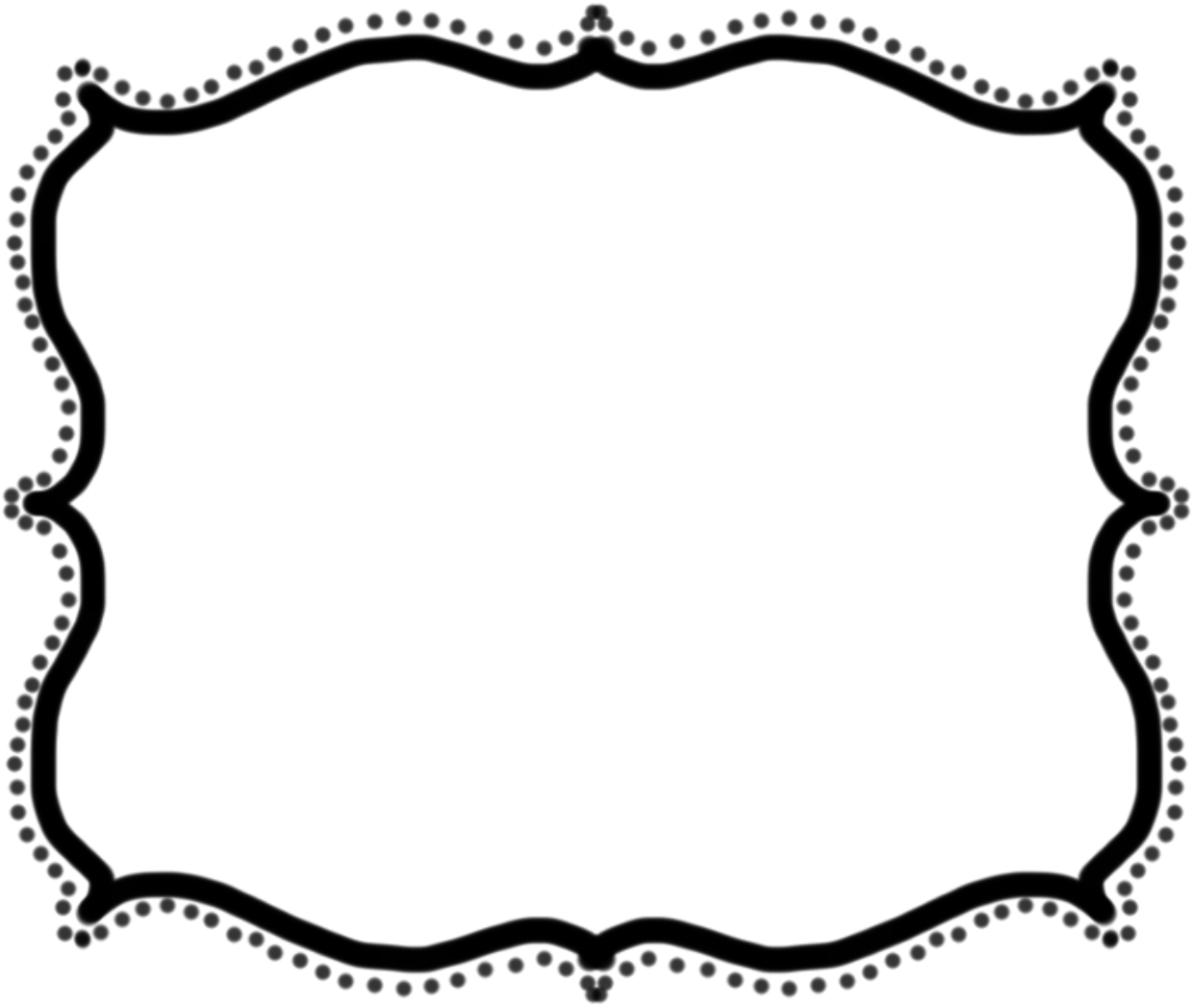
Animal Match-Up Cards

Duck Feet	Owl Wings	Cat Paw/Claws
		
Eagle Beak	**Dog Teeth**	**Grasshopper Mouth**
		
My two webbed feet help me swim and live in water-based environments.	My two wings help me move from place to place in search of shelter and food.	My four paws and claws help me run and climb to escape predators and eat my food.
My sharp, hooked beak helps me catch and eat my prey with ease, sometimes in the air!	My sharp teeth help me protect myself when in danger and eat my food.	My tong-like mouth helps me crunch and chew food, like leaves.

My Monster's Portrait - Portfolio Page 1



Monster Brainstorming!
What do you want your monster's body to look like? Will it be hairy, scaly, fluffy? Will it be large or small?
How will your monster move around? Will it need wings, webbed feet, fins, paws/claws?
How will your monster eat? What will it's face/mouth look like? Will it need a beak, sharp teeth, a straw-like or tong-like mouth?