

# Lions, Tigers & Monsters, Oh My!

## Week 4: Grades 3-5

Day	Topics	Related Standards
1	A Monstrous Task!	<p><b>Develop and use models</b> to explain that plants and animals (including humans) have internal and external structures that serve various functions that aid in growth, survival, behavior, and reproduction.</p>
2	A Place to Call Home	
3	It's Dinner Time!	
4	Run or Hide?	
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!) have internal structures and external structures that help them survive, grow and behave in their environments.

### Overview:

In this activity, students will begin to imagine their unique monster by brainstorming the internal/external structures their monster possesses.

### Related Standards:

- Develop and use models to explain that plants and animals (including humans) have internal and external structures that serve various functions that aid in growth, survival, behavior, and reproduction.

### Key Terms:

- Structure - something that is made up of parts that are connected in a certain way
- Function - a purpose for a specific need/job
- Internal structure - structures found on the inside of living things
- External structure - structures found on the outside of living things

### 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 *internal structures*, or structures found inside them and *external structures*, or structures found on the outside of them, that help them carry out certain *functions* or 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 our knowledge and understanding of what living things need and how they 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 “portfolio pages” will build the “report”.
    - Inform students that they will have time on Day 5 to build a 3D model 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? What are its structures?
  - How does it move? How does it eat?
- To help you get started, we are going to explore examples of different external structures of animals!
  - Engage students in the following activity:
    - Using the *Animal Match-Up Cards*, pair-up the structures that best match their descriptions of how the structures help animals survive in their environments.
      - 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 structures and functions, let's revisit your monster! Remember, today you are brainstorming the structures of your monster:
  - What is your monster? What is it's name?
  - What does it look like? What are its structures?
  - 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 about your monster's structures 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 career 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 portfolio must include labeled visual representations of the following:**
  - a. The main structures of the monster.
  - b. The monster's ecosystem.
  - c. The monster's food chain, including what/how it eats and what eats it.
  - d. The monster's adaptations, including behaviors and structures to keep it stays safe in its environment.
  
- 2. You may use the following resources to create visual representations:**
  - a. Drawings
  - b. Pictures/videos
  - c. 3D models (we would be interested in studying a 3D model of the monster itself!)
  
- 3. In addition to the project portfolio, you must prepare a presentation:**
  - a. Explain each part of the portfolio to a family member, friend, teacher, etc. Walk someone through your findings!
  - b. The presentation can take place through one of the following ways:
    - i. Face-to-face
    - ii. Video conferencing/recording

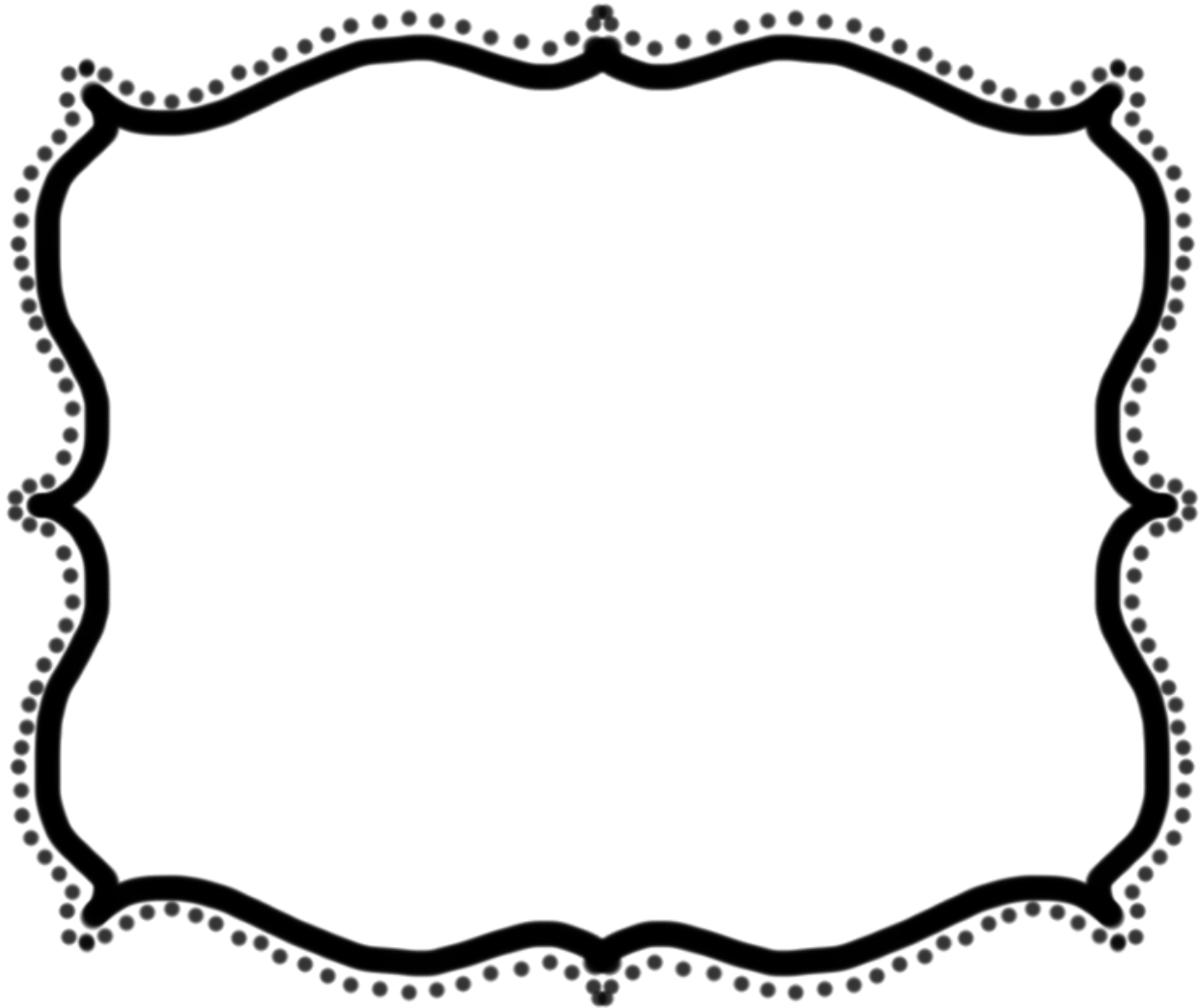
My team eagerly awaits your project's findings. Best of luck out there!

*Dr. Lilly Padton*

## Animal Match-Up Cards

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

## 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 its face/mouth look like? Will it need a beak, sharp teeth, a straw-like or tong-like mouth?