

Hamster Fun

Adapted from	oster-1.pdf STEAM Lab – Creating	oom.org/wp-content/uploads/2018/08/2BAF an Enriched Environment for Our Guinea ectives: Students will work in a team to desi
Pet: Hamster	rigs Kindergarten Obj	Class: PK -2

 Brief Overview: This project provides students with opportunities to develop their understanding of science and engineering concepts, language arts skills, and math skills. By exploring the needs of a hamster and creating a safe and enriching environment for it, students will learn about animal habitats, and measurement. They will also develop their writing skills by describing their observations. Easily adapt to other pets and grades 	Lesson Breakdown Lesson 1: Learn About Hamsters (2 classes) Lesson 2: Fun and Games Lesson 3: Measure and Weigh Lesson 4: Mapping the Cage and Designing a Habitat
Essential Question How can we provide a safe and enriching environment for our hamster?	

SubjectsStem ConnectionsScienceScience: needs and characteristics of a hamsterELATechnology: use graphic software to draw and label a hamsterMath(optional)STEMEngineering: designing, building and testingArtMath: measuring, weighing, graphingOtherImage: Stem Connections

Performance Expectations/ Standards NGSS:

2-LS4-1. Make observations of plants and animals to compare and contrast their diverse habitats.

2-MD1-1. Measure and compare objects using a standard unit of length.

2-MD1-2. Measure and compare objects using a standard unit of weight.

CCSS

ELA.W.2.7 Respond to questions and directions, repeating information and stating opinions clearly.

ELA.W.2.8 Use descriptive details and sensory language to convey experiences or events. **ELA.RI.2.8** Describe how words and phrases supply readers with information about different topics or texts.

MATH.2.MD.A.1 Measure and compare objects using a standard unit of length. MATH.2.MD.B.1 Measure and compare objects using a standard unit of weight.

I CAN statements

- identify the different parts of a habitat, such as the shelter, food, and water sources.
- describe how different animals' physical features help them survive in their habitats.
- compare and contrast the needs of different animals
- use a ruler to measure the length of objects.
- use a scale to measure the weight of objects.
- listen carefully to questions and directions and respond with clear and concise answers.
- repeat information clearly and accurately.
- state my opinions clearly and respectfully.

Materials

- Hamsters and their cages
- Hamster food and water bottles
- Hamster toys and accessories
- Books about hamsters
- Construction paper, crayons, markers, and scissors
- Magnifying glasses
- Journals

Teacher Background

Hamsters are small rodents native to Asia and Europe. They are popular pets due to their small size, low-maintenance care requirements, and friendly personalities. Hamsters come in a variety of colors and sizes, with the most common breed being the Syrian hamster, also known as the golden hamster.

Physical Characteristics

Hamsters are characterized by their soft, furry bodies, short tails, and large cheek pouches. They have sharp incisors that grow continuously throughout their lives, which they use for gnawing and grooming. Hamsters have poor eyesight but excellent hearing and sense of smell.

Diet and Habitat

Hamsters are omnivorous, meaning they eat both plants and animals. In the wild, they typically feed on seeds, fruits, and insects. As pets, hamsters should be fed a commercial hamster food that is specifically formulated to meet their nutritional needs. Hamsters also require fresh water at all times.

Hamsters are naturally solitary animals and should be housed in individual cages. The minimum cage size for a hamster is 12 inches by 12 inches, but larger is always better. The cage should be filled with bedding, such as shredded newspaper or aspen shavings. Hamsters need plenty of exercise, so it is important to provide them with toys and accessories, such as an exercise wheel, climbing toys, and chew toys.

Behavior

Hamsters are crepuscular animals, meaning they are most active at dawn and dusk. They are also nocturnal, meaning they are active at night. Hamsters are generally gentle and docile animals, but they can become aggressive if they feel threatened. It is important to handle hamsters with care and to supervise children around them.

Lifespan

The average lifespan of a hamster is two to three years. With proper care, some hamsters can live up to four years.

Benefits of Owning a Hamster

Owning a hamster can be a rewarding experience. Hamsters can make great companions for people of all ages, including children. They are relatively low-maintenance pets, and their small size makes them ideal for apartment living. Hamsters can also provide companionship and stress relief.

Considerations Before Owning a Hamster

Before getting a hamster, it is important to consider the following:

Time Commitment: Hamsters require daily care, including feeding, watering, and cleaning their cage.

Cost: The initial cost of owning a hamster is relatively low, but there are ongoing costs for

food, bedding, and veterinary care.

Allergies: Some people are allergic to hamsters, so it is important to test for allergies before getting one.

Lifespan: Hamsters have a relatively short lifespan, so it is important to be prepared for their loss.

Lesson	1: Learn About H	amsters, Part 1
Time	Materials	Activity
15 mins		 Begin by introducing a KWL chart (What we know about hamsters, What we want to know about hamsters, What we learned about hamsters) and having the students share what they already know about hamsters. Then,make the hamster visible to the children and see what they can add to the W and L portion of the chart. (examples: how many toes does it have? does it have teeth?) Establish rules for safety for hamsters (and us) and post. Encourage children to give gentle reminders to one another about the rules.
20 mins	Books Note a list of suggested books is included at the end of the lesson.	Read both fiction and nonfiction books about hamsters to determine their needs, wants, and how to keep them safe (as well as us) List more under L on your chart through discussion.
10 mins		Facilitate a discussion that creates the development of classroom rules for the classroom pets. Write down the responses to post in the science center/where the pets are housed.

Lesson 2	1: Learn About H	amsters, Part 2
Time	Materials	Activity

20 mins	Coloring supplies, water	Engage in a classroom discussion. How many live in their house including pets? If no pet, what do they wish they had?
		Have the students draw a "my family and pets" picture. Count how many are in the photo together. Write their names.
		Remind them the hamster is their pet as well, so they may draw the hamsters in their picture.
25 mins		Create a class bar graph of the animals. Color in boxes from bottom up of the number of animals each child has and add them up. Write the number under the bar. Determine highest/lowest number

Lesson	2: Fun and Game	s
Time	Materials	Activity
15 mins	Coloring supplies	 Have the students draw a hamster: Draw a large oval for the hamster's body. Draw two smaller ovals for the hamster's head and a shorter oval for the tail. Draw four short lines for the hamster's legs. Draw two small circles for the eyes. Draw two small triangles for the ears. Draw three short lines on each side of the face for the whiskers. Then label these parts: Head Body Tail Legs Eyes Ears Nose Whiskers If there is time, they can also color the hamster's body.
15 mins	dice	Roll dice and have the students perform the positional words as if they are hamsters. For example,

Lesson 2: Fun and	Games
	 1 = Over: The hamster is climbing over the toys. (children pretend to cimb) 2 = Through: The hamster is squeezing through the tunnel. (children pretend to squeeze and wiggle) Etc.
10 mins	 Pick a name for the hamster. Discuss possible names for our 2 hamsters. Write down options agreed upon. Give the children cubes they use to put beside the name they vote on. Count up the votes together by counting the row of blocks per name. Write the number and determine which has the most votes. Have the hamster's name labeled on it's dwelling.

Lesson	3: Measure and V	Veigh
Time	Materials	Activity
15 mins	ruler	Demonstrate measuring the hamster with yarn. Hold yarn to a ruler to see how long it was (number identification, measurement).
		Have the students measure objects in the classroom and classify those that are the same size as the yarn/hamster, smaller than the hamster and larger than the hamster. Have them record their findings on a chart on the board.
15 mins	Scale Kitchen scale	Model for children that a scale shows the weight of an object. First weigh a student volunteer, then get out the kitchen scale and explain it is for lighter/ smaller objects (model examples).
		Have the students guess how much the hamster will weigh. Weigh the hamster. Who guessed the closest?
		Use the kitchen scale to weigh various objects around the room and chart whether it weighs the same or is lighter or heavier than the hamster.
15 mins		Create a Venn diagram to compare and contrast us

(human) to a hamster. Add the students' ideas into the chart.
Example: Hanster Human 4 legs 2 legs • Has fur Lives in a cage 2 eyes ar • Can talk • Lives in a house

Lesson	4 :Mapping the C	age and Designing a Habitat
Time	Materials	Activity
5 mins	Whiteboard, smartboard	Model drawing a map of the classroom on dry erase board with the children's feedback/ discussion of where things are and what to draw on the map. (how many windows? How many doors? Sink? Etc.)
10 mins		In a whole group discussion, guide students to answer these questions: What things we have seen or played with on playgrounds at home or in a park. What might the hamsters like to have that we want to try to build? What materials do we need? (dictate responses, facilitate discussion).
10 mins	Paper, drawing supplies	Discuss the different parts of the hamster's habitat, such as the food and water dishes, the bedding, and the exercise wheel. In a small group activity, have the children draw a map of the hamster cage and contents. (Can have images pre-drawn and cut out to paste to paper or have children draw on paper) Determine where they go by looking at the cage.
10 mins	Paper, drawing supplies	Students will then create drawings of their own hamster habitats using construction paper, crayons, markers, and scissors.
10 mins		Have the students present their drawings to the class and

|--|

Differentiation

For students who need additional support:

Conduct the activities as whole group activities. Offer hand over hand assistance when drawing or coloring

For students who need additional challenges:

have them design and create more complex habitats or create a habitat for a different type of pet.

Assessment

Students can be assessed on their participation in the project using this rubric:

Criteria	4 points	3 points	2 points	1 point
Contribution to Discussions	Actively participates in discussions, shares ideas thoughtfully, and listens respectfully to others.	Participates in discussions, shares ideas, and listens to others.	Occasionally participates in discussions and may interrupt others.	Rarely participates in discussions and may be disruptive
Completion of Assigned Tasks	Consistently completes assigned tasks on time and to a high standard.	Completes most assigned tasks on time and to a satisfactory standard.	Completes some assigned tasks, but may miss deadlines or produce work of lower quality.	Does not complete assigned tasks or produces work of consistently poor quality.
Collaboration and Teamwork	Works effectively with others, shares responsibilities, and resolves conflicts constructively	Collaborates with others and shares responsibilities.	May have difficulty collaborating with others or sharing responsibilities	Does not collaborate with others or may create conflicts.

Extension

Hamster Art: Students can create hamster-themed art projects, such as paintings, sculptures, or collages.

Hamster Research: Students can research different breeds of hamsters and present their findings to the class.

Hamster Book Club: Students can read books about hamsters and discuss them with the class.

Suggested books

Scillian Hamster in a Hamper by Lucy Daniels Trouble according to Humphrey by Betty Birney Mysteries according to Humphrey by Betty Birney Homemade for Hamster by Carin Oliver Summer according to Humphrey by Betty Birney My Hamster by Peter Fritzsche Max and Mo's first day at school by Brian Floca Max and Mo go apple picking by Brian Floca Looking after hamsters by Brian Floca Hamsters for kids by John Davidson Little Animal Ark: the happy hamster by Lucy Daniels Tiny hamster is a GIANT MONSTER by Joel Jensen Hamster Princess: Harriet the Invincible by Ursula Vernon The Hamster Book by Silvia Borando Hamster Princess: Ratpunzel by Ursula Vernon No more hitting for Little Hamster! by Bernette Ford Hamster and Cheese by Colleen Venable Let's take care of our new hamster by Garcia Sabates My hamster and me by Peter Hollmann Hamster chase by Anastasia Suen Hamstersaurus Rex by Tom O'Donnell Take your pet to the vet by Sara Miller Teacher's Pet by Julie Andrews