

What Pet Should We Get?

In this integrative lesson third grade students will use data about animals to choose the best pet for their class. This lesson is intended to be used as a full day of curriculum, or it can be shortened and use to focus on one subject area. In science they will classify animals by their characteristics. In mathematics students will figure out how much space the pet needs while exploring area and perimeter. Students will read a variety of information texts including data tables and use the information to draw a conclusion about which pet would be best for their classroom. They will discuss and defend their choices citing text and asking questions. Students will then write a persuasive essay or letter (citing the texts) to convince their teachers and classmates that their choice is the best one.

Social Studies:

SS.3.E.1.1 Give examples of how scarcity results in trade.

SS.3.E.1.3 Recognize that buyers and sellers interact to exchange goods and services through trade or money.

English Language Arts Standards:

LAFS.3.RI.1.1 - Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

LAFS.3.SL.1.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

LAFS.3.SL.1.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

- a. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- b. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- c. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- d. Explain their own ideas and understanding in light of the discussion.

LAFS.3.W.1.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.

- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- b. Provide reasons that support the opinion.
- c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- d. Provide a concluding statement or section.

Math Standard - MAFS.3.MD.3.6 Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).

Mathematical Practices:

MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.

MAFS.K12.MP.4: Model with mathematics.

MAFS.K12.MP.6: Attend to precision.

Science Standard - SC.3.L.15.1- Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.

Activity 1 : Social Studies

Social Studies:

SS.3.E.1.1 Give examples of how scarcity results in trade.

SS.3.E.1.3 Recognize that buyers and sellers interact to exchange goods and services through trade or money.

Learning Objectives:

Students will understand that taking care of a pet has a financial cost.

Prior Knowledge:

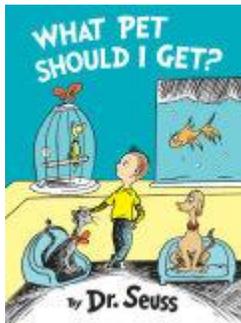
Students should know what money is that people use it to buy things they want or need.

Guiding Questions:

What is the difference between wants and needs?

Why can't everyone have everything they want? (Continue to guide questions to reveal the concept of scarcity - The basic economic problem that arises because people have unlimited wants but resources are limited.

- This activity using a read aloud of What Pet Should I Get by Dr. Seuss will engage students and set the stage for the following lessons.



Before Reading: Look at the cover. What do you see? What do you think the story will be about, based on the title and images? What do you think the boy wants? Are pets a good or service (goods are something you can touch or hold and services are something people do)?

Page 1 (starts on the first page of the actual story text): What do they want? Do they need a pet? What is the difference between wants and needs? Why do you think they want that good? Examine the page and go back to the cover. What in the text—words and images—tells you what they want?

2-3: Why did Dad say they could only have one? Dad has to work to earn money for things they want. Can you have everything you want? People need to make choices

because of limited or scarce resources. What was the scarce resource? (Try to get them to use the text that says Dad would only pay for one pet so money–what he would pay–was a scarce resource).

4-5: What decision do they have to make? Opportunity cost means giving up one thing for another. If Kay chooses the cat, what is the opportunity cost (the thing they would give up)?

6-7: What decision do they have and why?

8-9: What do they have to do?

10-11: More choices! Keep track of all of the different choices of pets.

22-23: Would the “thing on a string” be a good pet? Explain with evidence from the text.

26-27: Is the Yent a good choice for a pet? Why or why not?

28-29: How many different choices do they have? What do you think they will do?

30-31: What pet did they get?

Discuss the decision, using some of the words: choices, limited resources, goods, supply, demand, costs, benefits, saving, and spending.

Evaluation:

Ask students to create a T chart. On one side list things they want, on the other things they need.

On the bottom ask them to explain which of these things is most scarce and why.

Activity 2 – English Language Arts – Reading, Speaking, and Listening

English Language Arts Standards:

LAFS.3.RI.1.1 - Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

LAFS.3.SL.1.3 Ask and answer questions about information from a speaker, offering appropriate elaboration and detail.

LAFS.3.SL.1.1 Engage effectively in a range of collaborative discussions (one-on-one, in groups, and teacher-led) with diverse partners on grade 3 topics and texts, building on others' ideas and expressing their own clearly.

- e. Come to discussions prepared, having read or studied required material; explicitly draw on that preparation and other information known about the topic to explore ideas under discussion.
- f. Follow agreed-upon rules for discussions (e.g., gaining the floor in respectful ways, listening to others with care, speaking one at a time about the topics and texts under discussion).
- g. Ask questions to check understanding of information presented, stay on topic, and link their comments to the remarks of others.
- h. Explain their own ideas and understanding in light of the discussion.

Learning Objectives:

Students will ask and answer questions about text, apply information from text to real world situations, cite text, including text from data tables, to explain and defend their conclusions.

Prior Knowledge:

Determine the main topic of a text and its key details.

Record information using grade-appropriate organization, grammar, and conventions.

Guiding Questions: (Ask students to cite text sources (the data table and pet care sheets) when answering these questions.

Would our classroom be a good environment for this pet? What about sound levels and sleeping habits of this animal? Does this animal sleep at night or during the day?

Do we have enough space to house it?

Will we have access to the food it needs?

How often will we need to clean this pet's cage?

Is the temperature of our room comfortable for this pet?

What special equipment will we need in order to care for this pet?

What questions do you still have about this pet? Where can you find the information you want?

1. Tell students you (or another teach friend of yours) are thinking about getting a classroom pet. This is an important decision that needs careful consideration and thought and you would like their help to determine what pet would be best for the classroom.
2. Give each group of students the attached Pet Care Chart. Show the chart with a projector and discuss the criteria listed. Explain:

Under each animals name is a picture of it and a description of its behavior.

The other criteria listed include: How much space (area) they need, What should be in the bottom of the cage, temperature requirements, and diet.

Ask teams to discuss which of these criteria are most important in choosing a pet for a classroom? Are all of these criteria important? Why or why not? When choosing a pet for your classroom which of these will be most important to the health of the pet? Why do you think so? (There should be a variety of answers to these questions, encourage debate and ask “Why do you think that?”.) Is there any criteria that would eliminate a pet for pet from being a good choice for our class?

Ask teams to devise a plan for ranking the pets from best to worst. The plan must be based on evidence from the text (Animal Care Chart) and not opinions or conjecture.

Ask teams to rank the pets from the best pet for their classroom to the worst.

3. Teams will then present their choice and tell what their procedure for ranking the pets is and how they ranked the pets. Require them to cite the text as they explain.

Use the **TAG** method of discussion:

1. Students present their work.
2. The presenting groups calls on a student to **Tell** what they heard.
3. Then they call on a student to **Ask** a question.
4. Then they call on a student to **Give** a complement.

Repeat until every group has presented.

Evaluation Rubric:

	No evidence	Minimal evidence – needs assistance	Developing this skill but no mastery yet.	Has demonstrated evidence	Excels ample evidence
Student can ask and answer questions about text	0	1	2	3	4
Students can apply information from text to real world situations	0	1	2	3	4
Student can cite text, including text from data tables	0	1	2	3	4
Student can explain and defend their conclusions.	0	1	2	3	4

Pet Care Chart

Pet	How much space (area) do they need?	What should be in the bottom of the cage?	Temperature	Diet
<p>Bearded Dragon</p>  <p>Can be friendly and curious.</p>	<p>4 square feet, but bigger is better.</p>	<p>Calcium sand or a reptile carpet</p>	<p>Needs a heat lamp 12 hours per day and a place to be in the shade</p>	<p>Insects, vegetables, and fruit. Needs fresh food and a clean bowl every day. Fresh clean water</p>
<p>Tarantula</p>  <p>Tarantulas like to build webs and to hide.</p>	<p>2 square feet</p>	<p>Coconut fiber or reptile bark, places to hide and things to climb</p>	<p>Under tank heater under half of the tank and a light source.</p>	<p>Live insects including crickets, mealworms, superworms, and roaches. Fresh clean water</p>
<p>Rat</p>  <p>Rats love to climb and play. Some rats like to watch people and can be very friendly and curious.</p>	<p>At least 3 square feet.</p>	<p>Wood shavings or rodent bedding pellets about 2 inches deep. Clean wet spots every day.</p>	<p>Average house temperature, away from sunlight and drafts.</p>	<p>A rat's diet should include 80% dry rat food and 20% vegetables and fruit. Fresh clean water in a rodent bottle</p>
<p>Leopard Gecko</p>  <p>Most geckos do not show much interest in humans. Most like to bask in warm light during the day.</p>	<p>1.5 square feet per gecko.</p>	<p>Reptile carpet and a hide box with moist sphagnum moss. Branches to climb.</p>	<p>Under tank heater under half of the tank and a light source.</p>	<p>Crickets, waxworms, mealworms and clean, fresh water. Feed daily. Should also receive a powdered vitamin and calcium supplement.</p>

Pet	How much space (area) do they need?	What should be in the bottom of the cage?	Temperature	Diet
 <p>Hamsters sleep during the day and do not like to be disturbed.</p>	<p>1 square foot per hamster plus room to climb.</p>	<p>1-2" of clean aspen, pine or recycled paper bedding, cotton fabric or paper to shred to make a bed.</p>	<p>Keep cage in a room that is kept between 65-75° F and away from windows.</p>	<p>high-quality hamster pellets and limited amounts of grains, vegetables, fruits and timothy hay. Clean, fresh water</p>
 <p>Best kept alone.</p>	<p>Can be kept in a small aquarium, 1 square foot.</p>	<p>Gravel Keep water clean, do not use chlorinated water.</p>	<p>Keep in a room with stable temperature, keep away from direct sunlight.</p>	<p>flaked tablet or frozen food sparingly 3 times a week and be cautious not to overfeed.</p>
 <p>They are most active at night.</p>	<p>Adult ball pythons need an area of about 4 square feet.</p>	<p>Wood shavings or reptile bark, branches to climb and hiding places. Will need a separate tank for feeding.</p>	<p>Under tank heater under half of the tank and a light source.</p>	<p>Appropriately sized frozen rodents that have been thawed to above room temperature.</p>
	<p>6 square feet per turtle. Turtles swim and bask during the day and sleep out of the water at night.</p>	<p>Water, gravel (too big to fit in your turtles mouth), and a sloped place to get out of the water.</p> <p>Turtle tanks need to be cleaned frequently.</p>	<p>Heat bulb, an ultraviolet light, and an underwater heater</p>	<p>Diet depends on the type of turtle, some eat goldfish, earthworms, mealworms, bloodworms, snails and crickets, others need vegetables. All of them should be given pelleted turtle food and vitamin supplements.</p>

Activity 3 Math:

Math Standard - MAFS.3.MD.3.6 Measure areas by counting unit squares (square cm, square m, square in, square feet, and improvised units).

Mathematical Practices:

MAFS.K12.MP.3: Construct viable arguments and critique the reasoning of others.

MAFS.K12.MP.4: Model with mathematics.

MAFS.K12.MP.6: Attend to precision.

Learning Objectives: What will students know and be able to do as a result of this lesson?

Students will recognize area as an attribute of plane figures

Students will discover that square units measure area and that the square units must not have gaps or overlap.

Students will measure areas by counting unit squares.

Students will use a variety of square units to represent models of pet habitats, including square centimeters, square inches, square feet and squares on grid paper.

Prior Knowledge: What prior knowledge should students have for this lesson?

This is an introductory lesson in a unit on area. Students will need to know basic plane figures (rectangles and squares) and be able to count square units. Students should know how to order numbers. Students need to be familiar with basic measurement units (cm, m, in, and ft).

Guiding Questions: What are the guiding questions for this lesson?

What is area?

How can we find the area of a plane figure?

How can we measure area?

What is "one square unit"?

Why is it important not to overlap square units or have gaps?

How can we determine fractional parts of area using models?

Is there more than one way to arrange a floor plan that has the same area?

Materials: 1 inch color tile squares or other small square math manipulatives, paper, pencils.

Do we have enough space to house this pet?

1. Explain that a scale drawing shows a real object with accurate sizes except that they have all been reduce or enlarged by a certain amount called the scale. Many classrooms have tiles that are 1 square foot, this could be used for demonstration of a real life scale. Tell them they are going to make scale floorplans of the homes for the pets.

Direct students to look at the part of the Pet Care Chart that shows the amount of space needed for each pet. Explain that area is the size of a surface. Show them that a space can have an area of 6 but have very different shapes because the perimeter – the distance around the shape changes. Show the figures (These can be draw on a white board or chart paper) and write the numbers as you count the squares for area and perimeter.



This figure has an area of 6. We can count six squares. There are three rows with two squares in each. Or 2×3 .

It has a perimeter of 10. If we count the outside edge of each square we will count ten. Another way to say this is $2+3+2+3=10$



This figure has an area of 6. We can count six squares. There are six rows with one squares in each. Or 6×1 .

It has a perimeter of 14. If we count the outside edge of each square we will count ten. Another way to say this is $1+6+1+6= 14$

2. Give students square inch color tiles. Ask them to show an area of 2 squares. What is the perimeter? Is there any other way to make a shape with an area of two squares using these tiles?

Repeat with 3, 4, 5, 6, 7, 8, and 9 squares. Ask students to draw and label the shapes showing the area and perimeter. Discuss and model using multiplication to find the area.

3. Give the students the Pet Care Chart and a new sheet of paper. Ask students to draw and label the space required for homes for each of the pets. Ask them to show all of the possible perimeters for each area configuration.
4. **Evaluation:** Give students the **Aquarium Size Chart** and ask them to give the area for each tank. (Length and width are provided.)
5. Discuss – the 10 gallon tank has an area of 200. This is in inches, the rest are in feet. Is 200 square inches bigger or smaller than 2 square feet? Look at the chart – is a length of 20 inches greater or less than a length of 2 feet? (It is less) Is a width of 10 inches greater or less than one foot? (less – a foot is 12 inches). Using this information ask

students to explain which is larger and which is smaller. What other clues are there? (10 vs. 20 gallon capacity)

Show students a table or desk space on which a pet could be kept. (It can be any space 2x2 feet or larger). Is there room on this table for every one of the pets? Is it too small for any of them? How do you know? What could you do to find out? Have student groups explore ways to find out which pet homes would fit in that space. Provide students with rulers and allow them to choose manipulatives to use if they desire to. Discuss- how did you find the area of the table space? Which pets will not fit in this space?

Aquarium Size Chart Answer Key

Tank size (volume)	Length	Width	Area of tank
10 gallons	20 inches	10 inches	200 inches
20 gallons	2 feet	1 foot	2 feet
30 gallons	3 feet	1 foot	3 feet
40 gallons	4 feet	1 foot	4 feet
60 gallons	3 feet	2 feet	6 feet
90 gallons	4 feet	2 feet	8 feet

Name _____

Aquarium Size Chart

Tank size (volume)	Length	Width	Area of tank
10 gallons	20 inches	10 inches	
20 gallons	2 feet	1 foot	
30 gallons	3 feet	1 foot	
40 gallons	4 feet	1 foot	
60 gallons	3 feet	2 feet	
90 gallons	4 feet	2 feet	

Name _____

Aquarium Size Chart

Tank size (volume)	Length	Width	Area of tank
10 gallons	20 inches	10 inches	
20 gallons	2 feet	1 foot	
30 gallons	3 feet	1 foot	
40 gallons	4 feet	1 foot	
60 gallons	3 feet	2 feet	
90 gallons	4 feet	2 feet	

Pet	What size tank will this pet need?	How did you find the correctly sized tank?
Bearded Dragon 		
Tarantula 		
Rat 		
Leopard Gecko 		

Pet	What size tank will this pet need?	How did you find the correctly sized tank?
<p data-bbox="203 317 318 344">Hamster</p> 		
<p data-bbox="203 667 334 695">Betta Fish</p> 		
<p data-bbox="203 1096 350 1123">Ball Python</p> 		
<p data-bbox="203 1484 386 1512">Aquatic Turtle</p> 		

Activity 4 – Science

Science Standard - SC.3.L.15.1- Classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics and behaviors.

Learning Objectives: What will students know and be able to do as a result of this lesson?

Be able to classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their physical characteristics.

Be able to classify animals into major groups (mammals, birds, reptiles, amphibians, fish, arthropods, vertebrates and invertebrates, those having live births and those which lay eggs) according to their behaviors.

Be able to differentiate between physical characteristics and behaviors.

Prior Knowledge: What prior knowledge should students have for this lesson?

All animals, including humans, are alike in some ways and different in others. (SC.2.L.14)

All animals, including humans, have internal parts and external structures that function to keep them alive and help them grow and reproduce. (SC.2.L.14)

Guiding Questions

What does it mean to classify something? To take a group of items and divide them into groups based on certain features.

How can we classify animals? Vertebrates (mammals, birds, amphibians, reptiles, fish) and Invertebrates (arthropods and/or insects)

Why do we classify animals? (Open-ended) To make it easier to learn and gain more insight on animal survival.

What would happen if we didn't classify animals? (Open-ended) It would be difficult to understand trends that occur within certain groups of animals.

1. Tell students that you just found out that many students are allergic to mammals. You think this may be because animals have fur. Tell them that you need them to classify the animals for you just in case you find out about any other allergies. Give students the Animal Classification Reference Chart and the Animal Classification (Classify the Pets) worksheet. Instruct students to write the classification of each pet (mammal, bird, reptile, amphibian, fish, or arthropod) and list the evidence for that classification.
2. After students have completed this task individually, project a black Classify the Pets worksheet and ask students to tell you what to write in each box. Ask them to explain

why they classified the pets that way and if there is any other possible way to classify them.

3. Discuss animal classification. Start with: Do you have a favorite animal? How would you classify it? Why? See guiding questions above.

Evaluation: Give students animal classification cards and pictures of animals (clip art, magazine pictures, etc.) Ask students to sort the animals and descriptions by their classification.

Print these cards and cut apart. Give a set to each student along with pictures of animals. Have students sort the cards and pictures and glue them to a piece of paper or poster.

Evaluation – cut apart cards and match

Mammal	Bird	Reptile	Amphibian	Fish	Arthropod
Hair/fur	feathers	scales	Smooth, moist skin	scales	Exoskeleton
Born alive, need milk	Start as eggs	Mostly eggs	Start as eggs	Some from eggs, some live young	Start as eggs
Most do not fly	Most fly	Do not fly	Do not fly	Do not fly	Some fly
Warm blooded (body makes its own heat)	Warm blooded (body makes its own heat)	Cold blooded - needs to get heat from its	Cold blooded - needs to get heat from its surroundings	Cold blooded - needs to get heat from its surroundings	Cold blooded- needs to get heat from its surroundings
Breaths with lungs	Breaths with lungs	Breaths with lungs	Breaths with gills when young, lungs when adults	Breaths with gills	Tiny tubes on their bodies
Bones inside	Bones inside	Bones inside	Bones inside	Bones inside	Exoskeleton – hard covering on the outside, no bones inside

Animal Classification Reference Sheet

	Mammals	Birds	Reptiles	Amphibians	Fish	Arthropods
Body covering	Hair/fur	feathers	scales	Smooth, moist skin	scales	Exoskeleton
Babies	Born alive, need milk	Start as eggs	Mostly eggs	Start as eggs	Some from eggs, some live young	Start as eggs
Flying	Most do not fly	Most fly	Do not fly	Do not fly	Do not fly	Some fly
Warm or cold blooded?	Warm (body makes its own heat)	Warm (body makes its own heat)	Cold- needs to get heat from its surroundings	Cold- needs to get heat from its surroundings	Cold- needs to get heat from its surroundings	Cold- needs to get heat from its surroundings
Breathing	lungs	lungs	lungs	Gills when young, the lungs when adults	gills	Tiny tubes on their bodies
Skeleton	Bones inside	Bones inside	Bones inside	Bones inside	Bones inside	Exoskeleton – hard covering on the outside, no bones inside

Classify the Pets

Pet	Is this pet a mammal, bird, reptile, fish, amphibian, or arthropod?	What is your evidence? Use evidence from the Animal Classification Reference Sheet and the Pet Care Chart.
Bearded Dragon 		
Tarantula 		
Rat 		
Leopard Gecko 		

Pet	Is this pet a mammal, bird, reptile, fish, amphibian, or arthropod?	What is your evidence? Use evidence from the Animal Classification Reference Sheet and the Pet Care Chart.
<p>Hamster</p> 		
<p>Betta Fish</p> 		
<p>Ball Python</p> 		
<p>Aquatic Turtle</p> 		

Activity 5 – English Language Arts – Writing

LAFS.3.W.1.1 Write opinion pieces on topics or texts, supporting a point of view with reasons.

- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- b. Provide reasons that support the opinion.
- c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- d. Provide a concluding statement or section.

Ask students to write a letter explaining which pet they think would be best for the class. Explain that the letter must cite what they have read about the pet. Allow students to use their notes and graphic organizers from the other What Pet Should We Get lessons. Provide students with additional information about their individual pets of choice. Pet Care Sheets for each of these pets are available at <http://www.petsintheclassroom.org/kids/pet-care-sheets/>

Remind students to:

- a. Introduce the topic or text they are writing about, state an opinion, and create an organizational structure that lists reasons.
- b. Provide reasons that support the opinion.
- c. Use linking words and phrases (e.g., because, therefore, since, for example) to connect opinion and reasons.
- d. Provide a concluding statement or section.

Extensions:

Have students present / read their letter to the class.

Have students create posters showing and telling why the class should have the pet they chose.

Get a classroom pet based on what your students have decided.

Go to www.Petsintheclassroom.org for more information.

All pictures taken from the Pets in the Classroom website.