

Graphing Puppies

Analyze and create line graphs using puppy growth data.



Learning Objectives:

Students will read a graph correctly and use the graph to find information.

Common Core State Standards:

CCSS.MATH.CONTENT.NS.C.6 Understand a rational number as a point on the number line. Extend number line diagrams and coordinate axes familiar from previous grades to represent points on the line and in the plane with negative number coordinates.

CCSS.MATH.CONTENT.NS.C.6.B Understand signs of numbers in ordered pairs as indicating locations in quadrants of the coordinate plane; recognize that when two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.

CCSS.MATH.CONTENT.NS.C.6.C Find and position integers and other rational numbers on a horizontal or vertical number line diagram; find and position pairs of integers and other rational numbers on a coordinate plane.

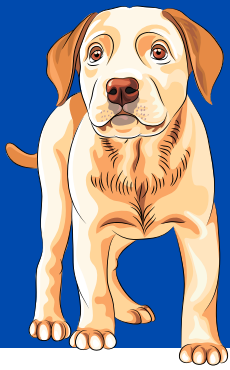
Materials:

- [Puppy Growth Article](#)
- Puppy Graph Worksheet (included)

Lesson:

Introduction

- Read this [article](#) about the way puppies grow. ***Focus on these sections:**
 - How Long Do Puppies Grow?
 - When Do Smaller Puppy Breeds Finish Growing?
 - When Do Larger Puppy Breeds Finish Growing?
- Review the attributes of a graph, including x-axis and y-axis.



Graphing Puppies

Analyze and create line graphs using puppy growth data.

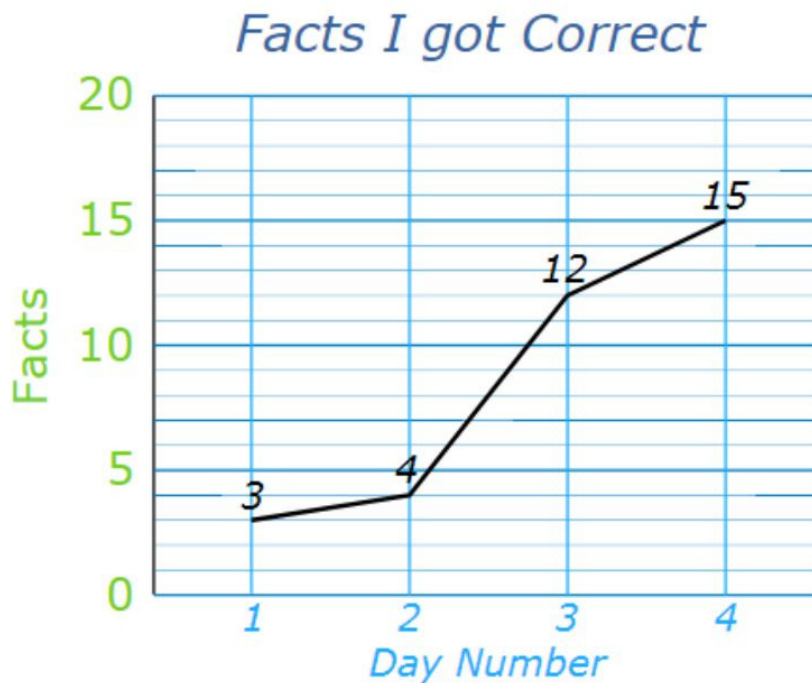


Lesson:

Explicit Instruction/Teacher Modeling

- Display sample graph below.
- Ask students the following questions:
 - What does the x-axis represent?
 - What does the y-axis represent?
 - How many facts did I get correct on day 2?

Sample Graph

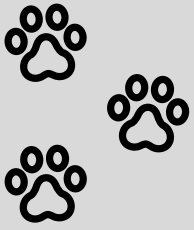


Independent Working Time

- Have students complete the puppy growth questions independently.

Review and Closing

- Review the correct answers with the class.



GRAPHING PUPPIES WORKSHEET

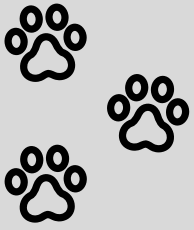
Directions: Use the provided graphs and charts to answer each question.



- Which axis above displays units of time?
 - x-axis
 - y-axis
- The graph shown above is known as a _____.
 - bar graph
 - pie chart
 - line graph

Complete the chart below using the Puppy Growth Graph.

Age	Dachshund Weight		Bulldog Weight		Great Dane Weight	
	Kilograms	Grams	Kilograms	Grams	Kilograms	Grams
3. 1 month						
4. 3 months						
5. 6 months						
6. 12 months						
7. 18 months						



GRAPHING PUPPIES WORKSHEET

Directions: Use the provided graphs and charts to answer each question.

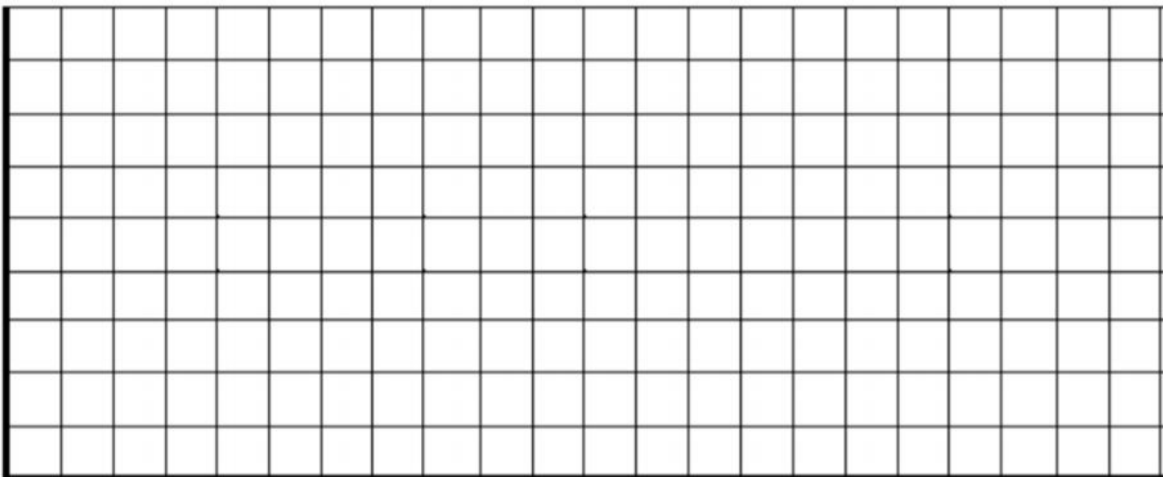
8. For each breed shown, list the first age in which their growth rate suddenly slowed to near zero kilograms per month.

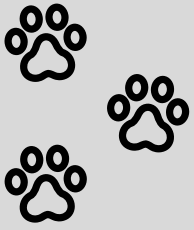
- a. Dachshund: _____
- b. Bulldog: _____
- c. Great Dane: _____

9. In at least 2 sentences, describe the relationship between the overall size of adult dog breeds with how soon their growth rate reaches zero.

BREED	1 month weight (kg)	2 months weight (kg)	3 months weight (kg)	6 months weight (kg)	9 months weight (kg)	12 months weight (kg)
Yorkshire Terrier	1	2	3	3.5	4	4
Cocker Spaniel	2	4	8	10	12	13
Golden Retriever	3	7	14	25	30	33

10. Using the data above, properly label and create a line graph.





GRAPHING PUPPIES WORKSHEET

Directions: Use the provided graphs and charts to answer each question.

11. Beside each breed, describe the age range (in months), when they experienced their fastest growth rate;

Yorkshire Terrier: _____

Cocker Spaniel: _____

Golden Retriever: _____

12. Given the different sizes of certain dog breeds, write at least 3 sentences comparing the benefits and challenges of owning a small breed versus a large breed. Consider food, size of supplies, space needed, travel, etc.