

# Graphing Scientific Data Presentation

HPS@SHS

Name \_\_\_\_\_ per. \_\_\_\_\_

1. When would you use the following graphs?

a. Pie graph: \_\_\_\_\_

b. Bar graph: \_\_\_\_\_

c. Line graph: \_\_\_\_\_

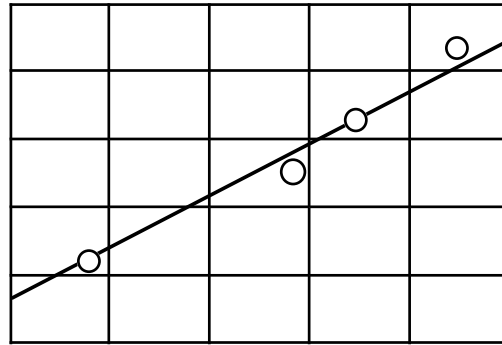
2. Why is graphing in Science done differently than graphing in Math?

\_\_\_\_\_

3. What is the difference between the independent and dependent variable?

\_\_\_\_\_

4. Label the parts of a graph on the diagram.



5. List the four guidelines for your scale

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

6 What are the steps in the formula for the best scale?

a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

Examples of scales: \_\_\_\_\_

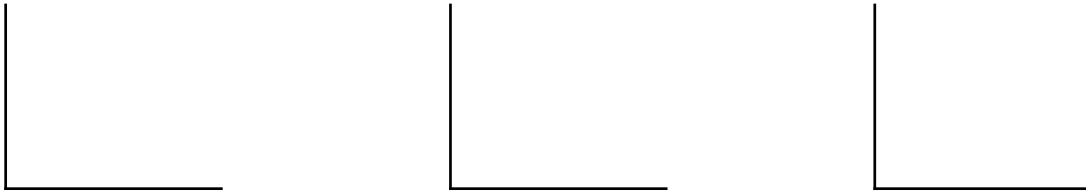
Never use \_\_\_\_\_ as a scale!

7. Regardless of its shape, the line on a graph is called a \_\_\_\_\_.

It shows the \_\_\_\_\_

\_\_\_\_\_.

8. Draw and describe the 3 types of curves.



9. List the rules you should use when drawing a curve:

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_
- d. \_\_\_\_\_
- e. \_\_\_\_\_

10. The curve usually begins at the origin. True or False? \_\_\_\_\_

11. What is meant by the following terms:

- a. Interpolate \_\_\_\_\_
- b. Extrapolate \_\_\_\_\_

12. What does the slope of a curve tell a scientist? \_\_\_\_\_  
\_\_\_\_\_

13. What are the 3 steps in calculating the slope of a curve?

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

14. What are some common graphing mistakes?

- a. \_\_\_\_\_
- b. \_\_\_\_\_
- c. \_\_\_\_\_

15. Using the information you have learned in this presentation, graph the following data AND calculate the slope of the curve. A student measures the radius of several circles the calculates the area of the circle. Here is their data:

Measured Radius (cm)	Area of the circle (cm <sup>2</sup> )
2.0	12.2
3.5	38.5
12.8	41.3
26.3	83.6
31.4	96.7
46.9	149.1
55.2	174.7