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May you be blessed on your homeschooling journey.

♥ Marie

THE SCIENTIFIC METHOD PACKET

This is a 7-page packet meant to encourage the investigation of the scientific method. I use this packet over the course of 4-7 days depending on the age and size of the class. Working together, the teacher and student will explore the steps of the scientific method. The first page of the packet is a great time for students to personalize the packet. You can encourage them to write the definition of the scientific method on the cover or draw pictures that depict the scientific method. The Scientific Method Packet reviews the process of the scientific method including how to write a hypothesis, writing steps for an experiment, identifying variables, and creating different graphs to organize data. Happy learning!

What is the
Scientific Method?

What is the Scientific Method?

1. **Posing Question:** Write 5 questions that you could test in an experiment?

a. _____

b. _____

c. _____

d. _____

e. _____

2. **Hypothesis:** Write a hypothesis for each of the posing questions below.

a. Does air pressure affect the bounce of a ball?

b. Will water freeze faster in different shaped containers?

c. Does a baseball player hit farther with an aluminum or wood bat?

d. Do more expensive candles burn longer?

3. **Set-Up Experiment:** Choose one of the posing questions above. Write out a step by step explanation of how you would test the hypothesis.

1. _____

2. _____

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

10. _____

11. _____

12. _____

4. **Variables:** Determine what the variables are in the experiment.

a. Manipulated variable: _____

b. Responding variable: _____

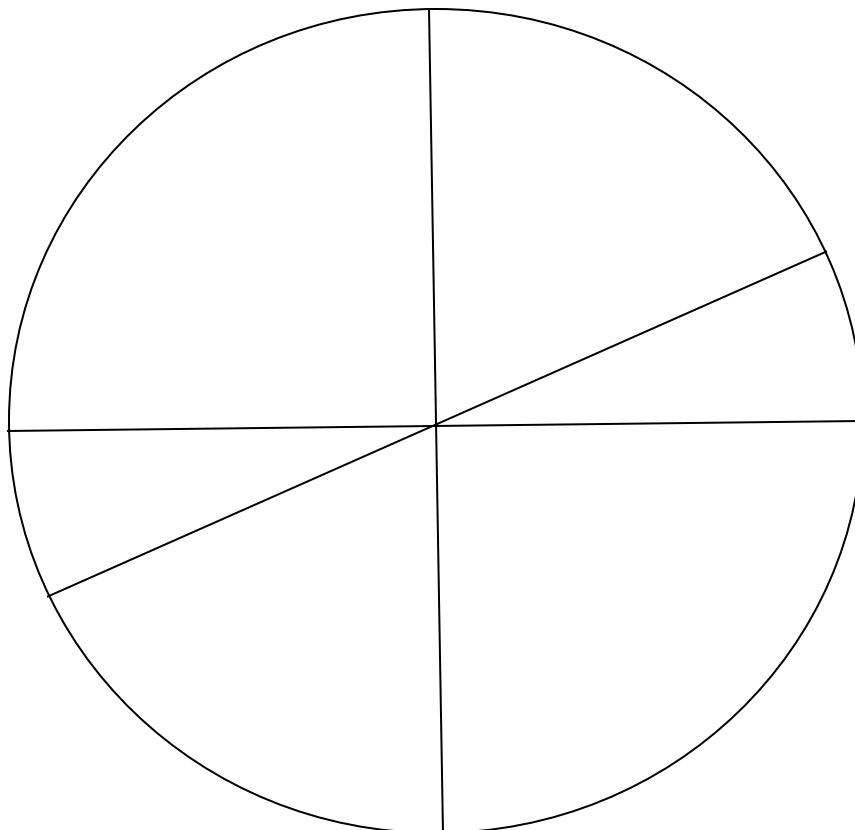
c. Controlled variable: _____

5. **Record Data:** Use the data in the table below to fill in the pie graph below. Make sure to label your pie graph with the activity, hours spent, and percentage of the day. Complete your pie graph by coloring each slice a different color. *Be neat.*

Percent of Hours of a Day Spent on Activities

ACTIVITY	HOURS	PERCENT OF DAY
Sleep	6	25
School	6	25
Job	4	17
Entertainment	4	17
Meals	2	8
Homework	2	8

Percent of Hours of a Day Spent on Activities

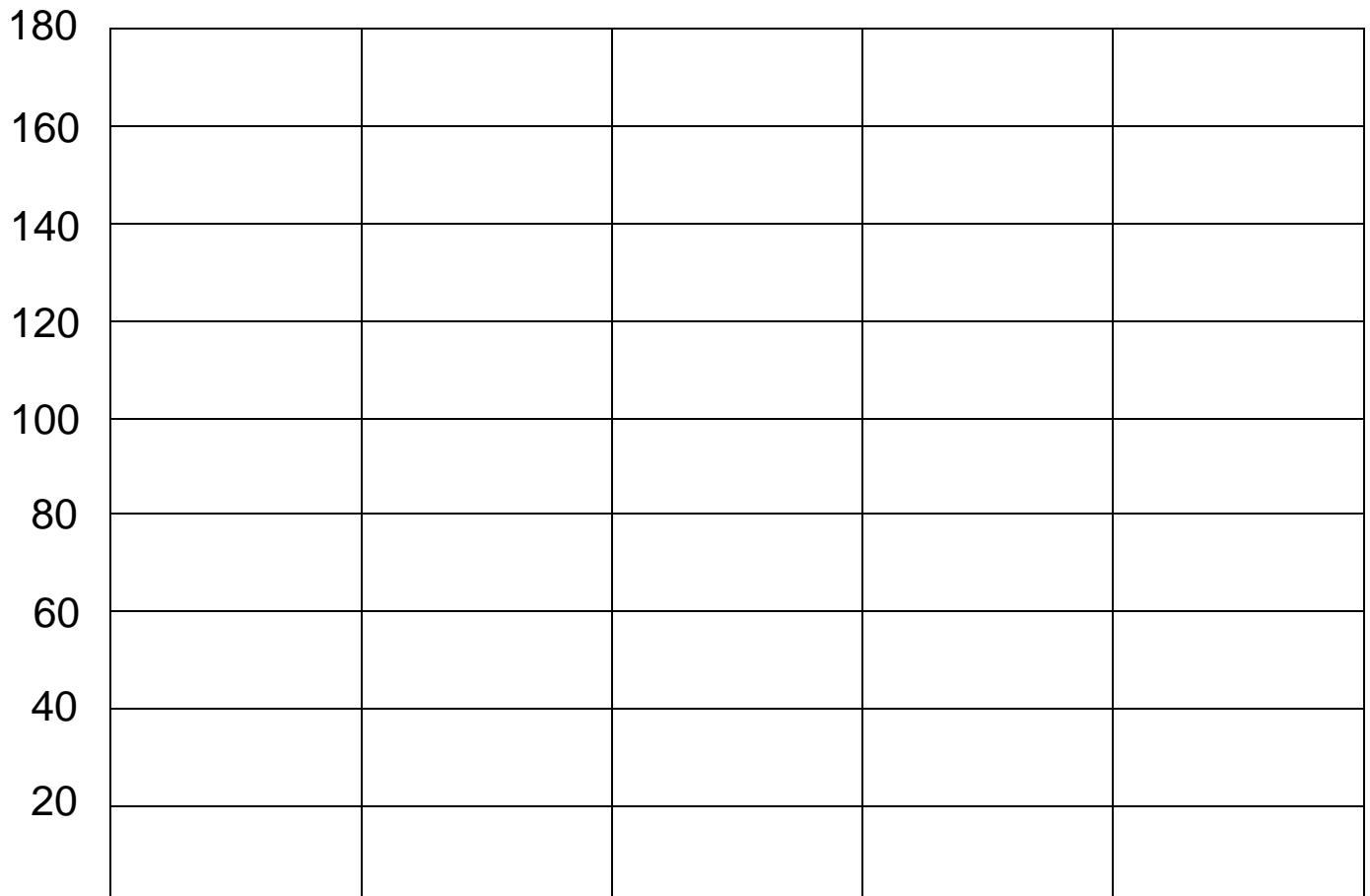


6. Use the data in the table below to fill in the bar graph. Make sure to label your graph appropriately.

Favorite Student After School Activity

Activity	Number
Visit W/Friends	175
Talk on Phone	168
Play Sports	120
Earn Money	120
Use Computers	65

Favorite Student After School Activity

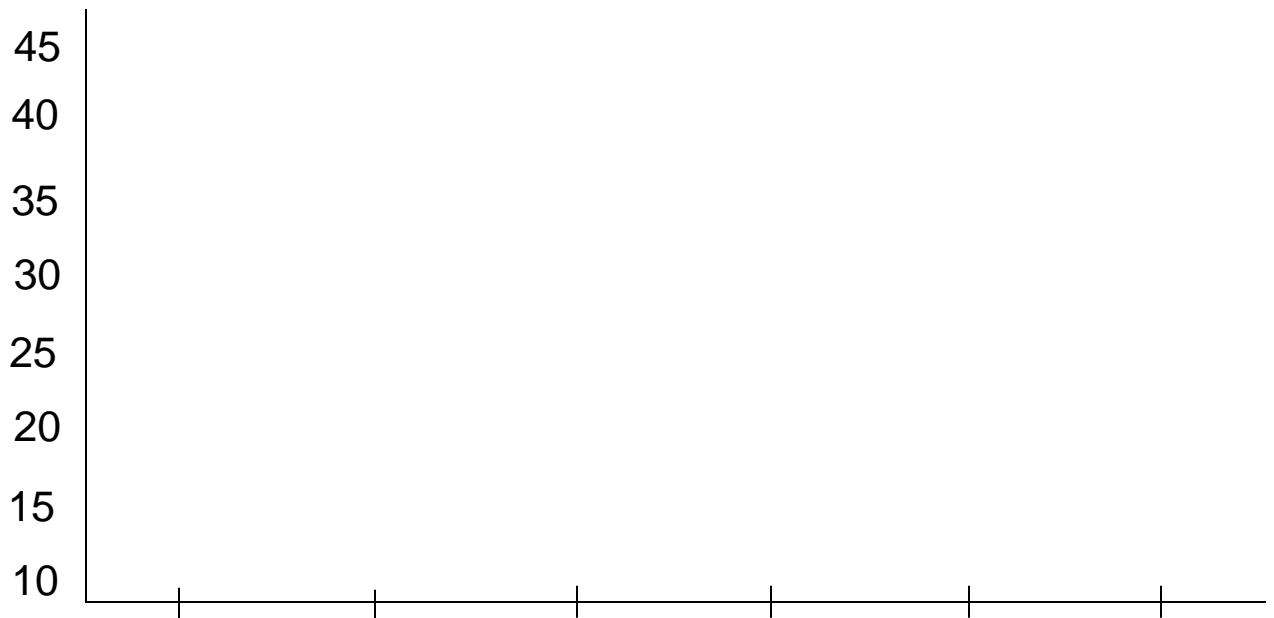


7. Use the data in the table below to create a line graph. Make sure to label your graph appropriately.

Average Daily Temperature for January 1-6 in Degrees Fahrenheit

Date	Temperature
1	16
2	25
3	30
4	42
5	28
6	41

Average Daily Temperature for January 1-6 in Degrees Fahrenheit



8. **Analyze the data/ State Conclusion:** Use the line graph to write a 5-sentence explanation of the graph.

9. Number the steps of the scientific method in the order they should go.

- _____ Analyze Data
- _____ Ask a Question
- _____ Develop Hypothesis
- _____ State Conclusion
- _____ Test Hypothesis
- _____ Research Topic
- _____ Collect Data