

# STUDY GUIDE

REVIEW STRATEGIES · CRITICAL THINKING

# Includes **PRINT** or **DIGITAL** Options

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## SECTION 1

Directions: Describe how science is represented in each of the pictures below.

Hot air balloon \_\_\_\_\_

Downhill skiing \_\_\_\_\_

Watch \_\_\_\_\_

Bee \_\_\_\_\_



Initials: \_\_\_\_\_

## SECTION 2

Directions: Define each of the factors of the scientific investigation and then use your knowledge to answer the question below.

Scientific Method

- Hypothesis— \_\_\_\_\_
- Experiment— \_\_\_\_\_
- Control— \_\_\_\_\_
- Constant— \_\_\_\_\_
- Independent Variable— \_\_\_\_\_
- Dependent Variable— \_\_\_\_\_

Example: Mrs. Bess's twelve chickens are eating machines. Their current pre-bought feeder must be refilled every other day. Help Bess solve this problem by designing a new way to feed her chickens less often.

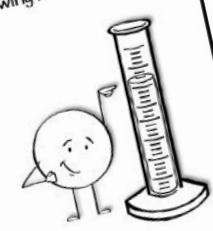
Instances Solutions: \_\_\_\_\_

Initials: \_\_\_\_\_

## SECTION 3

Directions: Using your knowledge of measurement, determine the unit you would use to measure each of the following items.

- Carton of milk \_\_\_\_\_
- Bathtub \_\_\_\_\_
- Test tube \_\_\_\_\_
- Feather \_\_\_\_\_
- Television \_\_\_\_\_
- Egg \_\_\_\_\_
- Medicine tablet \_\_\_\_\_
- Length of shoelace \_\_\_\_\_
- Length of fingernail \_\_\_\_\_
- Distance from Jupiter to Earth \_\_\_\_\_
- Beetle \_\_\_\_\_
- Elephant \_\_\_\_\_
- Temperature of hot chocolate \_\_\_\_\_



Initials: \_\_\_\_\_

## SECTION 5

Directions: Use the data below to create the type of graph needed to best present the information.

Degrees	Day
0	1
20	2
40	3
60	4
80	5
100	6

People	Type of Music
20	Country
12	Rap
33	Classic Rock
6	Alternative



Initials: \_\_\_\_\_

## SECTION 6

Directions: Fill in the circle graph to best present the popularity of the type of chocolate listed.

Reese's Peanut Butter Cups	40%
M&M's	33%
Snickers	20%
Butterfinger	7%

Directions: Fill in the blank with the best term from the word bank. Not all words will be used.

Word Bank: independent, dependent, control, x-axis, y-axis, information, bar graph, vertical, circle graph

- Graphs are a way of communicating a lot of \_\_\_\_\_.
- A variable that changes and affects another variable is called \_\_\_\_\_.
- In a line graph, the horizontal axis can also be referred to as the \_\_\_\_\_.
- The type of graph that shows information as parts of a circle is called a(n) \_\_\_\_\_.
- A variable that changes as a result of another variable is called \_\_\_\_\_.
- In a line graph, the \_\_\_\_\_ axis is referred to as the y-axis.

Initials: \_\_\_\_\_

## SECTION 7

Directions: Scan the QR code to watch the video about variables. After watching the video, design a paper airplane and fly it. How far did it go? Make changes to it at least 3 times and record what changes you made and what happened each time.



### THE WHAT IF'S

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Did you know Benjamin Franklin didn't patent any of his inventions? That means he let people use his ideas for free!





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