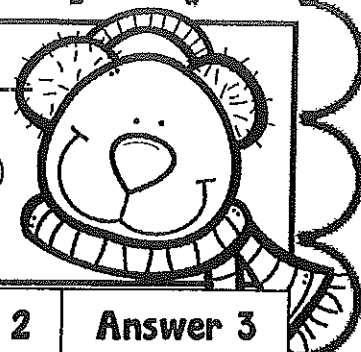


Name _____ Date _____

EXPERIMENTAL Variables (Bear)



For each question, there is one correct answer and a color associated with that answer.
On the coloring page, each question number section should be filled in with that color!

#	Experiment	Answer 1	Answer 2	Answer 3
1	Dylan is designing an experiment to investigate how sound waves are affected by the type of medium through which they travel. Which is the independent variable?	sound waves BLUE	medium GREEN	wavelength BROWN
2	Doug wanted to find out what kind of food winter birds preferred. If he designed an experiment to answer this question, what would the independent variable be?	type of bird BLUE	times of day YELLOW	type of food RED
3	Maria is doing an experiment to see if peaches rot more quickly than oranges. What is the dependent variable?	peaches BROWN	oranges GREEN	rate of rot PINK
4	Three baseball players investigate to see who can throw a baseball the farthest. They mark off an area on the playground for their investigation. Which should they keep constant?	throwing spot PURPLE	throwing order RED	color of ball ORANGE
5	A student hypothesizes that green algae will grow fastest when exposed to blue light. To test this hypothesis, the student should design an experiment with which dependent variable?	blue light PURPLE	green algae BROWN	growth BLACK
6	Students plan to use several rain gauges to compare average monthly rainfall in different areas of their state. Which of these variables is the independent variable?	height of gauge YELLOW	location of gauge RED	brand of gauge BLACK
7	In an experiment designed to determine if a specific brand of cat food is causing cats to meow excessively, what is the dependent variable?	type of cat YELLOW	brand of food RED	meowing PURPLE
8	Chelsea wants to know which brand of potting soil is most nutritious for plants. She decides to design an experiment to test different types of soil. Which of the following should be constant?	amount of water BROWN	type of soil BLACK	color of the pot ORANGE
9	A scientific experiment must have a control as part of the design so that you have	safety GREEN	a comparison YELLOW	good data RED
10	To determine the boiling point of an unknown liquid, a student heats 10 mL of the liquid in a test tube and records the temperature every minute for 20 minutes. Time is what variable?	independent BLUE	dependent ORANGE	control BROWN

