Name: _____

CUSTOM COLORS

In "Why Zebras Have Stripes" (p. 14), you read about a scientist's investigation to determine the purpose of zebras' coloration. The table below explains some other functions of coloring in organisms. Study the chart, and then answer the questions on the following page.

COLORATION TYPE	DESCRIPTION	EXAMPLE
Camouflage	Patterns or colors that help an organism blend into its surroundings so that predators or prey can't easily see it.	A tiger's vertical stripes help it blend into the tall grass where it hunts.
Countershading Camouflage	Different colors on the top and bottom of the animal help conceal it from predators or prey both above and below.	A squirrel's light belly helps it blend into the sky when viewed from below. A darker back matches the ground to conceal it from predators above.
Cryptic Camouflage	Coloring and shape that make an organism look like something else in its environment, such as a stick.	The slow-moving walking stick insect looks almost identical to a twig so predators don't notice it.
Mimicry	Coloration that makes an organism look like another organism. The organism whose coloring is copied usually has traits that help protect it from predators, such as being poisonous or venomous.	King snakes are not toxic, but they have bright stripes similar to those of venomous coral snakes.
Warning Coloration	Bright colors and distinctive patterns that make the animal stand out in the environment.	The bright colors of poisonous organisms like the fire salamander warn predators that they should stay away.
Signaling	Bright colors and patterns often found on males to attract mates.	Many male birds of paradise have extravagant coloring and long feathers to attract females.
Temperature Regulation	An organism's color changes shade depending on temperature. Darker colors soak up more of the sun's heat.	Many frogs become lighter in color when they are exposed to direct sunlight.

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CUSTOM COLORS

QUESTIONS

1. How would you characterize the coloration of a polar bear? How do you think its coloration helps it survive? Explain your answer.

2. What type of coloration does a coral snake have? Support your answer with evidence from the table.

3. Penguins have black backs and white bellies. What type of coloration is this, and how do you think it helps protect them?

4. How might the color of a frog change if you were to move it from a sunny spot and into a cold, shady area? Why?

5. Compare and contrast the function of a zebra's black-and-white stripes to the function of a coloration type in the chart. Use evidence from the chart and article to explain your answer.