



EXCERPT TO WRITE ABOUT

“How Does a Chameleon Change Its Color?”From *How Come? Planet Earth*

by Kathy Wollard

▶ Sample Heading: How Does a Chameleon Change Its Color?

Imagine your mother is calling you to come in for lunch on a cool fall afternoon. You are playing in a pile of leaves—red, gold, green, and brown scraps of color, crackling and shifting. You don’t want to stop. As your annoyed mother comes into the backyard to look for you, you relax and sink into the leaves. You idly watch as the skin on your hands and arms quickly begins to change color, from its normal flesh tone to mottled, red, gold, green, and brown. As you lie quietly, perfectly matching the leaves, your mother passes nearby, muttering to herself. “When I find him . . .”

Your now-orange lips suppress a smile. Fooled her again.

▶ Now read the next section and highlight important details that help you determine the main idea. Once you’ve decided on a main idea, write a heading for this section.**▶ Heading** _____

Being a chameleon for a day sounds like fun. But what’s a chameleon’s life like? You’re probably familiar with the pet shop chameleon, small and green. But chameleons come in 84 more varieties. Many live on Madagascar, a huge island off the east coast of Africa. Others skitter around the African mainland, India and Pakistan, and the south of Spain. Some kinds are less than an inch long; others measure 2 feet or more. Their long, darting tongues make it easy to catch insects, as well as spiders and scorpions. Some of the bigger chameleons even eat birds and small mammals.

▶ As you read the remainder of the article, pay close attention to each section. Highlight important details, determine the main idea, and then create a heading that reflects the main idea.**▶ Heading** _____

Each chameleon comes equipped with special skin cells called chromatophores, which contain an array of pigments that allow chameleons to change their body colors—totally or in part. The chameleon’s body secretes hormones that trigger the chromatophores to redistribute pigment.

This means that a chameleon has the extraordinary ability to blend in perfectly with its surrounding—to take on the exact green shade of a sheltering leaf, or to fade to brown against a bare tree trunk. A scuttling scorpion might not notice its enemy until it’s too late to escape. Likewise, a branch-leaping lemur might continue on its way, unaware that a chameleon dinner is within easy reach.

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► **Heading** _____

Ever see a mood ring? Popular in the late 1960s, mood rings changed color with body heat, supposedly reflecting the wearer's emotions. Well, chameleons are nature's mood rings—or, rather, mood lizards. Madagascar's panther chameleons shift from an ordinary green to an array of neon colors before they do battle, like British redcoats in the American Revolutionary War. The angrier these male chameleons are, the brighter their colors—an intimidating display to a potential rival. (When some chameleons feel threatened, their skin actually develops a menacing-looking arrowhead pattern.)

At mating time, chameleons change color to attract or repel potential suitors. An ordinary brownish female may turn bright orange, signaling she is available to mate. After hooking up with the male of her choice, she turns Halloween colors—black with orange splotches. This tells other interested males that this lovely chameleon is, unfortunately, taken.

Changing temperatures can cause a color change, too. Chameleons can use color to regulate their body temperature. By turning a darker color, they will absorb more heat and warm up. A shift to a lighter color will reflect more heat, helping the chameleon cool down. (We use the same principle when we wear white rather than black T-shirts in the hot summer sun.)

► **Heading** _____

If you were a human chameleon, you would probably soon grow tired of displaying your every emotion in living color. It's bad enough to blush in the presence of someone you have a crush on; imagine turning bright orange all over, like an international distress signal. Given the choice, most people would probably leave the color-shifting to the lizards.

► **Look at the headings you wrote. How do these add up to one central idea for the text? What is the central idea?**

► **Write about reading:** On another piece of paper, write an objective summary stating the central idea and the key details that support it.

Note: Kathy Wollard conveys an impressive amount of information about chameleons; notice that she does several things to engage readers to make her piece more than just a collection of facts. What do you notice? In the first paragraph, she teaches us about camouflage by having us imagine we had that same capability. Notice in the last paragraph above, the author again makes us consider whether or not we would want to change colors with every emotion. How does that technique add to your understanding of lizards? Or does it just make the piece more engaging to read?