Cause and Effect

Grade 3 Reading Worksheet - Challenge Me

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Name _____ Date _____

Circle the answer.

READ THIS FIRST

Why Coral Reefs Turn White

A coral reef looks like a garden of colorful rocks. But corals are actually tiny animals. Each one is soft and smaller than a pea. Thousands of them live together. They build hard, stony skeletons that pile up over many years. Slowly, these skeletons form a reef.

Corals have helpers living inside them. These helpers are tiny plant-like living things called algae. The algae use sunlight to make food. They share much of that food with the coral. In return, the coral gives them a safe home. The algae also give many corals their bright colors. Algae need sunlight, so most reefs grow in shallow, clear water.

This partnership works best when the water stays at the right temperature. When ocean water gets too warm for too long, the corals become stressed. Stressed corals push the algae out of their bodies. Without the algae, the coral's clear body shows the white skeleton underneath. This is called coral bleaching.

A bleached coral is still alive. But it has lost its main source of food. If the water cools down soon, the algae can move back in. Then the coral slowly gets its color and food back. If the water stays warm, the coral grows weak and may not survive.

Bleaching affects more than the coral. Many kinds of ocean fish spend part of their lives on reefs. Fish hide in the reef's cracks and lay eggs there. Sea turtles and crabs visit reefs too. When corals are lost, the reef breaks down over time. As a result, many fish lose their homes.

Scientists are working to help. Some grow young corals in underwater nurseries. Then divers plant them on damaged reefs. Others study corals that handle warm water better. Some reefs have already started to recover. Because warm water causes bleaching, slowing the warming of Earth helps reefs most of all.

1. What causes a coral reef to form?
   - Algae grow in layers on ocean rocks.
   - Divers plant young corals in rows.
   - Fish lay their eggs in the cracks.
   - Coral skeletons pile up over many years.

2. Why do many corals have bright colors?
   - The algae inside them give the color.
   - Sunlight shines through the water.
   - Warm water changes their color.
   - Their stony skeletons are colorful.

3. What causes corals to become stressed?
   - Water that is too cold for too long.
   - Too much sunlight on the algae.
   - Water that is too warm for too long.
   - Too many fish living in the cracks.

4. What do stressed corals do?
They push the algae out.
They move to cooler water.
They build bigger skeletons.
They grow brighter colors.

5. Why does a bleached coral look white?
The algae turn white when the water warms.
Its white skeleton shows through its clear body.
The sun fades its color over many years.
Sand from the ocean floor covers it up.

6. What can happen if the warm water cools down soon?
The reef breaks down.
The algae can move back in.
The coral turns white.
The fish leave the reef.

7. Which list shows the causes and effects in the right order?
Water warms, coral turns white, corals push out algae.
Water warms, corals push out algae, coral turns white.
Coral turns white, water warms, corals push out algae.
Corals push out algae, water warms, coral turns white.

8. What happens to fish as a result of corals being lost?
Many fish move into nurseries.
Many fish bring the algae back.
Many fish lose their homes.
Many fish lay more eggs.

9. What does "nurseries" mean in "grow young corals in underwater nurseries"?
caves where algae hide from the sun
boats that carry divers to reefs
schools where ocean fish learn
places where young living things are raised

10. According to the text, why does slowing the warming of Earth help reefs?
Fish need warmer water.
Divers can plant more corals.
Algae need less sunlight.
Warm water causes bleaching.

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Answer Key - Grade 3 Reading Worksheet - Challenge Me

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