

Lesson Plan

Nature Detectives

Book: *Islands*

Series: Landforms

Level: Beacon

Objective

To help students practice making inferences based on a process explained in a text.

Supplies

- *Islands* book
- Nature Detectives worksheet (attached)

Before the Activity

Read the *Islands* book, or assign it to students to read on their own. Divide students into groups of three or four, and print a Nature Detectives worksheet for each group.

Activity

Chapter 2 (“The Birth of an Island”) and Chapter 3 (“Changing Islands”) describe the many ways that islands can form and change. Scientists study this process. They make careful observations and look for patterns. Then, they use this information to predict what will happen to other islands in similar situations. The information is sort of like the clues that detectives use to solve mysteries.

In the following activity, students get to practice thinking like detectives. Divide students into their groups, and give each group the list of cases. Each case includes a description of an event. Students should write a sentence explaining how this event will create or change the island. In cases 1 through 5, students should identify which kind of island will form. In cases 6 through 10, students should identify how the island will change. They should make sure to mention if the island will grow or shrink.

Evaluation

Collect students’ worksheets at the end of the activity. Use the attached answer key to give students 1 point for each case they “solve” correctly, for a total of up to 10 points.

Standards

This lesson may be used to address the Common Core State Standards’ reading standards for informational texts, grade 4 (RI 4.3).

Nature Detectives

Case 1

A piece of land breaks away from a continent. Slowly, this land begins to drift out to sea.

Case 2

An underwater volcano erupts several times. Lava piles up and begins to stick out of the water.

Case 3

Waves sweep sand and sediment near the shore. The sand and sediment form a giant pile.

Case 4

Corals link their skeletons together to form a reef. Sand and rock build up on top of the reef.

Case 5

A person creates a large pile of sand in the ocean. The pile sticks up above the water.

Case 6

A volcano on a volcanic island erupts again, releasing even more lava.

Case 7

Waves and currents sweep sand away from a barrier island.

Case 8

The temperature near an island made of ice grows warmer.

Case 9

Melting ice causes the sea level near a low island to rise.

Case 10

Large storms happen near an island, hitting the island with fast winds and huge waves.

Nature Detectives **ANSWER KEY**

Case 1

A piece of land breaks away from a continent. Slowly, this land begins to drift out to sea.

The land will become a continental island.

Case 2

An underwater volcano erupts several times. Lava piles up and begins to stick out of the water.

The lava will pile up to form a volcanic island.

Case 3

Waves sweep sand and sediment near the shore. The sand and sediment form a giant pile.

The pile will eventually become a barrier island.

Case 4

Corals link their skeletons together to form a reef. Sand and rock build up on top of the reef.

The reef will eventually stick up above the water and become a coral island.

Case 5

A person creates a large pile of sand in the ocean. The pile sticks up above the water.

The person has created an artificial island.

Case 6

A volcano on a volcanic island erupts again, releasing even more lava.

The additional lava will make the island bigger.

Case 7

Waves and currents sweep sand away from a barrier island.

The island will get smaller as part of it is swept away.

Case 8

The temperature near an island made of ice grows warmer.

The ice will melt, and the island will shrink.

Case 9

Melting ice causes the sea level near a low island to rise.

The water will cover the island and make it disappear.

Case 10

Large storms happen near an island, hitting the island with fast winds and huge waves.

The wind and waves will cause erosion and shrink the island.