

Nova: ***Mt. St. Helens- Back From the Dead***

Name: XXXXXXXXXX _____

1: *When* did Mt. St. Helens erupt last?

May, 18th, 1980

2: *Where* is Mt. St. Helens located?

Skamania County, Washington, in the Pacific Northwest region of the United States.

3: *How much magma* is released during the eruption?

Millions.

4: What is a **pyroclastic flow**?

Dense destructive mass of very hot ash, or lace from volcano.

5: *How far from the summit* is Spirit Lake located?

5 KL or 4 miles away.

6: *How many people* were killed by the eruption?

57 people.

7: How far away was the **furthest victim**?

13 miles aways.

8: **How many birds** disappeared during this disaster? **How many insects**?

Around all, through a 230 SQML, Thousand. And billions insects.

9: What happens to **Spirit Lake**? *Explain.*

It got contaminated with highly toxic water, from the gasses sleeping up from the lake bed.

10: **Explain** what the XXXXXXscape in this region looks like after the eruption. **(End of Part I)**

Everything got destroy, and it got cover with ash. And there was not life to be found anywhere.

11: What is the **“Pacific Ring of Fire”**?

An arc of intense seismic, by earthquake, and volcanic activity.

12: **Explain** what has caused the volcano at Mt. St. Helens.

The earth surface being pushing together.

13: What did the **ecologist find** when he first came to the mountain after the eruption?

They couldn't find anything, any form of life.

14: What were the **first signs of life** at the mountain? *What did they see happening?*

They saw a bush that was already blooming, also animals were raising.

15: Why were ecologists so surprised to see a flowering plant a year after the eruption? **(End of Part II)**

Because it was the first some of life, that was the start that brought small animal to surface.

16: How has the plant managed to grow in such a barren area? **Explain.**

The plant has special root, the bacteria living within the root provide nutrient, and the plant returns the bacteria with simple sugar .

17: What is a **pioneering species**? *How do they help out in a nutrient poor environment?*

Explain.

*Pioneering species are the first species that appear after a damaged of the ecosystems
ex: rocks, sand. ... It helps because is the beginning of the ecosystem, after they died it forms new soil for*

18: What is ^{new} **causing earthquakes** on Mt. St. Helens?

By an earthquake making feeble the ground. which made the volcano to release its underground pressure

19: *Explain how the pioneering species are helping to revive the landscape.*

They change the land as the grow. Creaking new strong soil when they die.

20: What were scientists finding in Spirit Lake? Why was the **dissolved oxygen** levels so low?

What was this causing?

Bloom in bacteria, there were low levels because they were consuming the oxygen. This is preventing the lake from blooming supporting other animals that need the oxygen.

21: Explain how life in the lake is able to come back. What species is first (pioneering species)?

How were they brought to the lake? (End of Part III)

From phytoplankton, they are the first species. They don't need oxygen and they were brought to the lake by the blown of the wind.

22: How are the **salamanders** able to survive in the harsh environment?

They adapt to the toxic environment, mainly sodium chloride from road salt.

23: How was the **rate of recovery** on the mountain? Was it as scientists expected? (**End of Part IV**)

The rate was more faster than scientist expected. It took less time, and it was blooming.

24: Where does all of the explosive force in volcanoes come from? Where does the gas come from? (**End of Part V**)

They come from magma that are created from the pressure of gas. Gas come from water vapor.

Discuss the miraculous return of nature to Mt. St. Helens years after the eruption. In your discussion, use the following terms in your answer: **succession, pioneer species, symbiosis (mutualism), and nutrient cycling**

After the volcano eruption all the living things and the ecosystem was doom. There was not form of live there was nothing that could be use to resort the ecosystem and its living things. But not everything was gone, there was still soil present meaning there was a chance for things to come back to life. This is called secondary succession. It started with the pioneers species, they were the first ones to arrive after the destructions. After they found a bush blooming this was the start, small animals were brought to life once again. This plants were able to exist because they are symbiosis, they use bacteria to survived and bacteria used them too. They absorb many useful nutrients by using their own growth this is known as the nutrient cycle.