Chaparral Ecosystems

Cross-Curricular Focus: Life Science

The chaparral ecosystem is a plant and animal community that is relatively rare. It is characterized by shrubland and a specific weather patten. Winters in this ecosystem are mild and wet, and the summers tend to be hot and dry. The state of California in the United States has one of the world's largest chaparral ecosystems. They can also be found in parts of northern Mexico, Australia, Chile, and South Africa.

Wildfires occur frequently in this ecosystem. Lots of very flammable plant growth builds up in between fire seasons. Only about 15-39 inches of rain fall each year. Shrub plants of the chaparral are most likely to catch fire in the late summer or early fall. That's because the summers are extra dry. The thought of fire is frightening to people with homes or businesses. However, it is far more dangerous not to have wildfires. When there are no fires, the shrubs take over. Small fires once in a while are beneficial. They keep the plant growth under control. They also act in some other surprising ways. There are some plant species in chaparral ecosystems that cannot reproduce unless there has been a fire. The heat, smoke and changes in the soil that follow a burn actually release seeds from some plants.

What causes the frequent fires in this region? Sometimes lightning strikes will catch plants on fire. However, this accounts for only a small portion of the fires. Humans are the cause of many wildfires. A match, cigarette or campfire left carelessly unattended can cause a fire. Hot, dry winds, like the Santa Ana winds in California, make the fire go wild. If it has been a long time since the last fire, plants will fuel the fire. It is often very difficult for firefighters to put out these fires.

People who live in and near chaparral ecosystems have to clear plants from around their homes. This helps to prevent the home from being damaged in a fire.

Although there are hazards in this ecosystem, people can take steps to remain safe. Wildfires are a natural and important part of a healthy chaparral ecosystem.

Name: _____

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

1) There are lots of disagreements between people who think we must prevent all wildfires, and people who think we need to let them happen. What do you think? Why?_____

_____

_____

2) What can people do to prevent accidental fires?

_____

_____

3) Give one statement from the passage that supports the idea that we should allow wildfires to burn.

_____

_____

4) When are the shrub plants most likely to catch fire?

_____

_____

5) What is the main idea of this passage?

_____

_____

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Although there are hazards in this ecosystem, people can take steps to remain safe. Wildfires are a natural and important part of a healthy chaparral ecosystem.

Name: Key

Answer the following questions based on the reading passage. Don't forget to go back to the passage whenever necessary to find or confirm your answers.

Actual wording of answers may vary.

1) There are lots of disagreements between people who think we must prevent all wildfires, and people who think we need to let them happen. What do you think? Why? student's choice

2) What can people do to prevent accidental fires?

They should be careful with matches, cigarettes and campfires.

3) Give one statement from the passage that supports the idea that we should allow wildfires to burn.

Example: When there are no fires, the shrubs take over.

4) When are the shrub plants most likely to catch fire?

4) late summer or early fall

5) What is the main idea of this passage?

5) Wildfires are an important part of the chaparral ecosystem.