Expedition to Southwestern Africa to Learn About Droughts

Part 1. Introduction.

Narrator: Rainy days can be gloomy, but not for people who live in southwestern Africa. Here, rainy days are some of the happiest days of the year because most of the time, this part of the world is very dry.

Plants and animals that live here rely on just a few rainfalls each year to survive. The same is true for people who grow crops or raise animals. If the rain doesn't come, it spells disaster.

When an area receives much less rain than it normally would, it's called a drought. Droughts are expected to get longer and more severe in some areas because of climate change.

Part 2. Where's the Rain?

Narrator: A drought can last anywhere from a few months to many years. Some droughts cover a small area, while others might cover several countries. Can you remember a time when your area had a drought?

If so, you might have noticed grass turning brown or plants shriveling up, and lakes and streams with less water than usual.

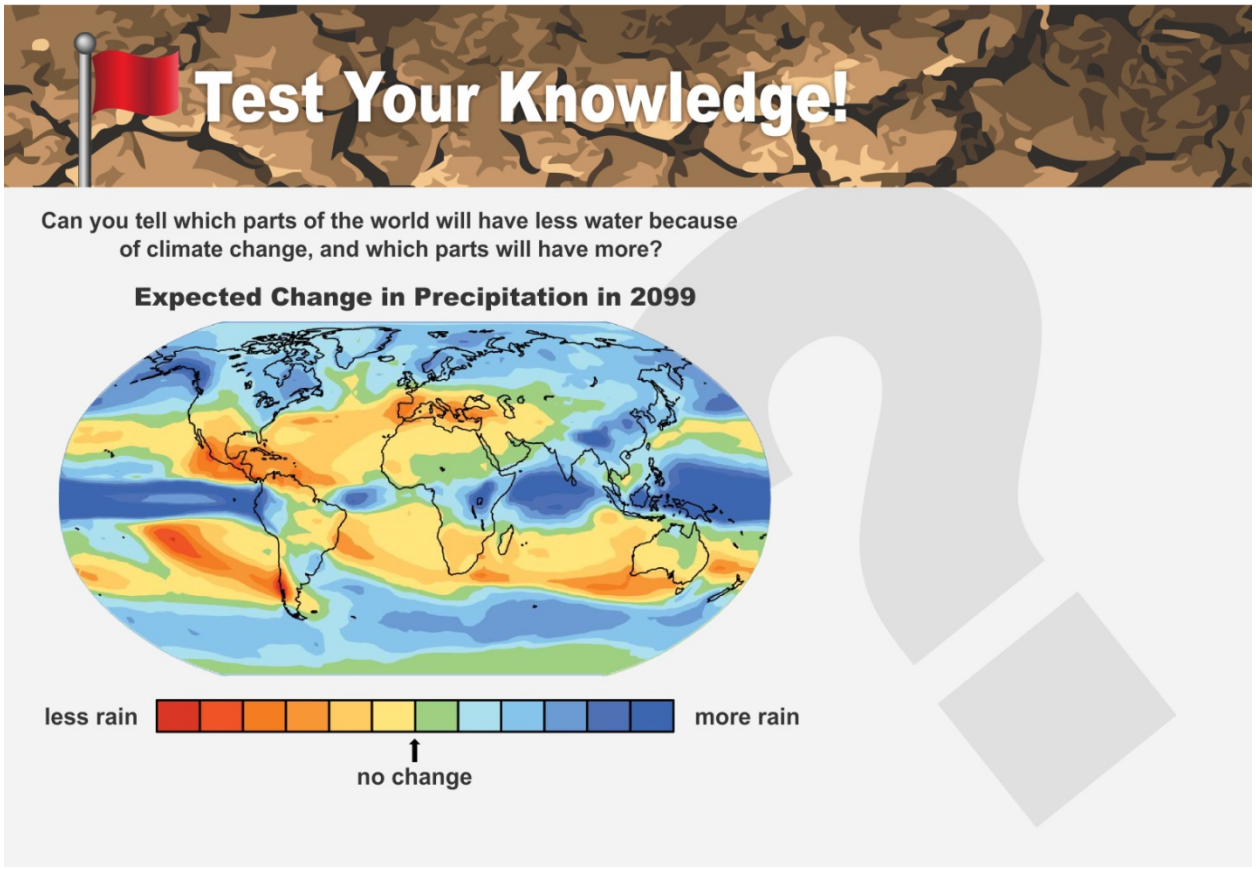
Part 3. The Climate Connection.

Narrator: Droughts are caused by changes in weather patterns. For example, in the United States, the Midwest relies on wind patterns that bring moisture up from the Gulf of Mexico. If the timing or direction of these winds were to change, the Midwest could get less rain than usual.

Weather patterns depend on interactions between the atmosphere and the ocean, and sometimes these interactions happen hundreds or thousands of miles away. For example, a change in water temperature in the Pacific Ocean can disrupt the weather patterns that bring rain to southwestern Africa.

Climate change is causing certain weather patterns around the world to shift. Some places are already getting more rain than they used to, while others are getting less. It's hard to predict when and where the next drought will occur. But overall, droughts are expected to happen more often and become more severe in many places.

Part 4. Test Your Knowledge.



Narrator: A warming climate will increase the amount of snow and rain, called precipitation, in many areas. As the Earth warms because of climate change, more water will evaporate from the Earth's surface and more clouds will form—increasing the amount of precipitation. But climate change will also cause some areas to experience less precipitation because of shifting wind patterns and ocean currents that drive the world's climate system.

This map shows how the amount of precipitation is predicted to change around the world by the end of this century. Can you tell which parts of the world will have less precipitation because of climate change, and which parts will have more? For each region, check the box to say whether the amount of precipitation will increase or decrease.

The text on the screen asks: "Can you tell which parts of the world will have less water because of climate change, and which parts will have more?"

First location: Alaska and Canada. You have two choices: Increase or decrease.

Answer: Future precipitation is generally expected to increase in Alaska and Canada.

Second location: Central America and the Southwestern United States. You have two choices: Increase or decrease.

Answer: Future precipitation is generally expected to decrease in Central America and the southwestern United States.

Third location: Southern Europe. You have two choices: Increase or decrease.

Answer: Future precipitation is generally expected to decrease in Southern Europe.

Part 5. Droughts and People.

Narrator: Droughts have terrible consequences for the people who experience them. Severe drought can cause food and water shortages, which often leads to sickness and disease.

When water is scarce, people may drink water that is not clean. There's also less water for hygiene and hand washing, which helps prevent the spread of disease. Also, people who do not have enough to eat for a long time have weakened immune systems so they get sick more easily.

Droughts can even lead to conflict, as people fight over limited food and water.

Some of the hardest-hit parts of the world will be countries that don't have a lot of resources to help their citizens cope with droughts.

Part 6. Effects on Plants and Animals.

Narrator : Plants and animals are also at risk during a drought. Without rain, plants can die off, and animals may have to search for new sources of food and water. Some animals can successfully migrate. But if a drought spans a very large area, many animals will not survive. Also, wildfires occur more frequently during a drought, creating more problems by destroying habitats and food resources.

Part 7. Test Your Knowledge!

Narrator: Okay….it's time to test your knowledge about how climate change and droughts will affect people. Refugees are people who must leave their country because it is no longer possible for them to live there. People often become refugees because of wars or violence, but a severe drought can also make people leave their homes. Which of the following reasons could cause people to become refugees during a drought?

The text on the screen says: "Refugees are people who must leave their country because it is no longer safe or possible for them to live there. Which of the following reasons could cause people to become refugees in a drought?" You have four choices:

A. Farmers can no longer grow crops.
B. Livestock do not have plants to graze on.
C. Disease spreads more easily.
D. All of the above.

Answer: The correct answer is D. People can face all of these problems during a drought, which can force them to leave their homes.

Part 8. Preparing for More Droughts.

Narrator: It's clear that weather conditions and patterns will change in the future because of climate change. In the case of drought, things are expected to get worse. So, we need to adapt to climate change and drought before they really make life tough.

Droughts hit farmers especially hard. But in some places, farmers may be able to plant different kinds of crops that can tolerate heat and drought. They can also use technologies, like drip irrigation and rainwater harvesting, to make the best use of scarce water resources.

Another step we can take is to improve our ability to forecast droughts. Knowing in advance when a drought is on the way gives people time to prepare.

Each one of us can also use water wisely! Try turning off the tap when brushing your teeth, taking a shorter shower, and running your washing machine only when you have a full load.

These are just a few of the steps we can take to make sure that we'll have enough water to meet our needs and help other communities around the world meet theirs.

Part 9. What Have You Learned?

Narrator: Is that a drop of rain? Guess we can end our trip now. What have you learned?

Onscreen text: A drought happens when an area gets less rain or snow than usual.

Narrator: A drought happens when shifting weather patterns cause an area to receive less than the normal amount of rain or snow.

Onscreen text: In many places, droughts are expected to become more frequent and more severe.

Narrator: Because of climate change, droughts are expected to become more frequent and severe in many parts of the world.

Onscreen text: Droughts can have terrible consequences, but we can take steps to reduce these impacts.

Narrator: Droughts can have devastating effects on people, animals, and plants. But there are many steps we can take to plan for droughts and reduce their impacts, from conserving water to improving our farming practices.

Part 10. Congratulations!

Narrator: Congratulations! You've earned a passport stamp by learning how climate change affects drought.

Onscreen code: 629381