Transcripts

Nature and the Environment

Unit 1 Hibernation

W: Some animals in cold climates hibernate. This means that they spend the winter months in a very long and deep sleep. Many animals find shelter underground. They dig out shelters to sleep in. Animals that cannot dig find cracks or holes at the base of trees and bushes. If they like the place they find, they might use it for years and years.

Animals that hibernate include cold-blooded animals, such as lizards, frogs, and snakes. Many warm-blooded animals also hibernate, such as mice, bats, and squirrels. When these animals are hibernating, they seem like they are not alive at all. Warm-blooded animals seem colder to the touch. However, their blood is still very warm. Hibernating animals have a very slow heartbeat. They almost stop breathing. Extra blood sugar and fat in their bodies keep them alive. They eat lots of food just before they hibernate.

Winters that do not stay cold are dangerous for hibernating animals. They can sometimes wake up in their shelters when it gets a little warm. Then they use energy by moving around. During winter, there is very little food. These animals can get very thin and weak. If they move around too much and do not eat, they can die.

Animals hibernate to escape the cold. There are also animals in hot climates that escape the heat. During very hot or dry weather, they sleep underground. This is called aestivation.

Unit 2 Falling Leaves

M: Autumn, or fall, is the season between summer and winter. The days become shorter, and the air gets cooler. Trees sense these changes, so they start preparing for colder weather.

Trees that have leaves block water and food from coming through the branches to the leaves. When this happens, the leaves die. They fall off the tree or the wind blows them away. This is why autumn is usually called fall in America. As the leaves start to die, they appear to change from green to red, yellow, orange, or brown.

Actually, the leaves are really these colors all year long. They look green because of a chemical called chlorophyll. Chlorophyll works with the sun to help the trees make food. In autumn, when there is less sun, the tree cannot make chlorophyll, so the green color fades. This reveals other colors, like red and yellow, that were always in the leaves.

Like trees, animals also sense changes in the cooler autumn climate. Animals that hibernate eat a lot during autumn. They gain weight to store energy in the form of fat. They use this energy to survive the winter while hibernating. Many birds survive the cold in a different way: they leave. Each year, many birds migrate south to warmer climates during autumn. They migrate north again in the spring. Not a bad idea if you ask me! After all, who would refuse a mid-winter trip to sunny Thailand?

Unit 3 How the Dinosaurs Disappeared

G: The death of the dinosaurs is a great mystery. About 65 million years ago, dinosaurs lived all over the Earth. They had existed for nearly 200 million years. Suddenly, they all became extinct.

Many scientists believe that the dinosaurs were killed by a large meteor. They think that this meteor was about six to twelve miles wide. It crashed into southern Mexico and made a hole about 130 miles wide. The crash threw dust and dirt into the sky. Dust clouds darkened the Earth's atmosphere. The crash caused fires, earthquakes, and tidal waves. The plants were killed. The oceans were poisoned. Very soon, there was no food left for the plant-eating dinosaurs. When they died, there was no food for the meat-eating dinosaurs. The meteor killed almost 70 percent of all plants and animals on Earth. The only animals that could survive were small ones that could eat many different kinds of food.

Some scientists say the meteor alone did not cause dinosaurs to become extinct. They think that dinosaurs were already getting weaker. They are not sure why. One reason might be disease. Another might be climate change. A big

part of the mystery is why some types of animals survived. If climate change killed dinosaurs, it should also have killed frogs. If the meteor killed most sea reptiles, it should have killed crocodiles. Yet frogs and crocodiles still exist in the world today.

Unit 4 Acid Rain!

M: I hate this rain. It's causing the traffic to back up for miles!

W: Well, I hate this traffic, because it's helping turn this rain into acid rain.

M: I heard that acid rain has really bad effects. Doesn't it cause cancer and brain damage, and even Alzheimer's disease?

W: It definitely can, but the major thing it does is cause breathing problems. The acid in the rain comes from smoke and gases that are given off by cars and factories. It's like riding your bike behind a bus that's showering you with its exhaust fumes.

M: Oh, I was reading something about that the other day. It said there's too much sulfur in the air and that it's killing thousands of people every year.

W: Yes. Sulfur is the major element in factory and car exhaust. It combines with oxygen and nitrogen in the air to become the acid in acid rain. This stuff doesn't just kill us, you know. It also kills trees and lakes and animals. The acid soaks into the plants and animals, so that anyone who eats the plants and animals is also eating the acid.

M: This sounds terrible! What can people do to stop acid rain?

W: One simple thing they could do is to use less energy. Another way to stop acid rain is to drive less, or at least carpool. Imagine if every car on this road had four people in it right now. There would be fewer cars and a lot less acid rain.

Unit 5 The Weather Forecast

Part I

W1: And now, over to Barry with our weather forecast for this weekend. How's it looking for this weekend, Barry? Speaking for myself, I know I'm looking forward to clear skies. The past two weeks have been even rainier than usual for Seattle.

M1: Well, Sue, residents of Seattle will be happy to hear that this rainy spell we've been having is finally coming to an end. Although we've seen occasional showers today, by tonight things should dry out, and Friday morning should be clear and sunny. This fine weather should continue until the end of the weekend, with temperatures ranging from 55 to 75 degrees, so everyone can put away those umbrellas. Back to you, Sue.

W1: Thank you, Barry. On behalf of the Thursday Six o'clock News team, we wish you a pleasant evening.

Part II

M2: Did you hear the weather report, Jenny? It looks like it'll be a clear weekend after all, so we won't have to cancel our trip to the lake.

W2: That's almost unbelievable! I'm really looking forward to getting out of the city and camping under the stars. But we'd better get our stuff ready tonight, Paul, if we're planning to leave tomorrow right after work.

M2: Yes, we'll need our tent, sleeping bags, camping stove, and a cooler for the drinks. What about food?

W2: Let's stop at a store and pick up some groceries on the way out.

M2: Sounds good. Well, we'd better get packing if we want to be ready to go by 5:00 p.m. tomorrow.

Science and Technology

Unit 6 Who Invented That?

W: What's so funny? I can't concentrate on my work if you keep laughing loudly like that.

M: I'm sorry. It's just that I'm reading this article in *Science Today* magazine about some of the unusual things that people have invented. These inventions are incredible!

W: OK, tell me about some of these inventions, and let's see if I think they're as funny as you do.

M: All right. The first one is a ladder for spiders, "a thin, flexible, rubber strip which attaches to the top edge of the bath."

W: Ha ha! I wonder how long it took someone to invent that.