Name:_____

The Science of Spring

Have you ever wondered why the days get longer and the flowers start to bloom? It isn't magic—it's science! Spring is a season of big changes for our planet.

The Earth's Big Tilt

The Earth doesn't sit straight up and down. It actually tilts on an imaginary line called an axis. During the winter, our part of the Earth is tilted away from the sun, which makes the weather cold. But as the Earth travels around the sun, we begin to tilt toward the light.

More Sunlight, More Energy

Because of the tilt, the sun stays in the sky longer each day. This extra sunlight warms up the soil. When the ground gets warm, it sends a "wake-up call" to seeds buried in the dirt. This process is called germination. The seeds use the sun's energy and spring rain to sprout and grow into green plants.

Animals on the Move

Animals follow the science of spring, too!

Migration: Birds that flew south for the winter follow the warmer weather back home.

Hibernation: Animals like bears and ground squirrels wake up from their long winter naps. They are hungry and ready to find the new plants growing in the sun.

The Vernal Equinox

In the middle of March, we have a special day called the vernal equinox. On this day, the day-time and the nighttime are almost exactly the same length! After this day, the sun will stay out longer and longer until summer arrives.

Name:_____

1. What is the imaginary line that the Earth tilts on called?

A) The Equator

B) The Axis

C) The Orbit

D) The Solar Line

2. Why is the weather cold during the winter in our part of the world?

A) The sun is turned off for part of the day.

B) The Earth moves further away from the moon.

C) Our part of the Earth is tilted away from the sun.

D) There are more clouds in the sky during winter.

3. What two things does the passage say seeds need to wake up and sprout?

A) Snow and ice

B) Moonbeams and wind

C) Fertilizer and vitamins

D) Warm soil and spring rain

4. What happens during the "Vernal Equinox"?

A) The daytime and nighttime are almost exactly the same length.

B) It is the coldest day of the entire year.

C) All animals go back to sleep for another month.

D) The sun stays up for 24 hours straight.

5. Which of these is an example of migration?

A) A bear sleeping in a cave all winter.

B) A seed growing its first green leaf.

C) A bird flying back home from the south.

D) The Earth spinning on its axis.

Name:_____

"Equinox Shadows" (Outdoor Math/Science)

Goal: Track the sun's position and Earth's tilt.

The Activity: On a sunny day, take the class outside at three different times (9:00 AM, 12:00 PM, and 2:00 PM).

The Task: In pairs, one student stands still while the other uses sidewalk chalk to trace their shadow. Measure the length of the shadow each time.

The Math: Create a bar graph of the shadow lengths.

The Lesson: Explain that as spring moves toward summer, the sun gets "higher" in the sky, making shadows look different!