MYSTERY #1: What makes the earth so special?

Scientists call Earth the "Goldilocks planet" because seven essential conditions are "just right" for life.

- **1. "Just Right" Star Type:** Among billions of stars, the sun is classified as a **G2V** or yellow dwarf. (G2 indicates its surface temperature and V identifies that the sun generates its energy by nuclear fusion of hydrogen nuclei into helium.) If the sun were larger or smaller, or hotter or colder, life on earth would be impossible. The sun's size, heat, and brightness are "just right"!
- **2. "Just Right" Distance:** Earth is **93,000,000** miles from the sun. If the earth were any closer to the sun, our atmosphere would burn away and the oceans would dry up. If earth were farther away from the sun, our oceans would freeze over, and everything alive would soon die. Earth's distance from the sun is "just right"!
- **3. "Just Right" Tilt:** Earth stays tilted at **23.5** degrees from a true north/south axis. Due to this tilt, as the earth revolves around the sun, sunlight shines directly on different parts of the earth at different times of the year. When the temperature is hot in some places, it is cold in others. The earth's tilt causes weather variations that result in our seasons. Without the tilt, some parts of our planet would always be scorching hot and others would always be bone-chilling cold. Earth's tilt on its axis is "just right"!
- **4. "Just Right" Size & Weight:** The earth is very heavy or **dense**. This density causes our gravity that pulls everything down to the surface. If its size and weight were much less, then gravity would be too weak to pull rain from the clouds. Also, strong winds would blow everything around.

If earth's size and weight were much greater, even a short walk would be exhausting. Also, gases that are harmful to breathe (such as ammonia and methane) would stay on the ground instead of rising through the atmosphere into space. Earth's size and weight are "just right"!

5. "Just Right" Magnetic Field: The earth's core and mantle contain huge amounts of molten **iron**. Scientists theorize that the movement of this hot liquid causes convection currents that produce a magnetic field. In any case, earth is highly magnetic and has a strong magnetic force field surrounding it. That's why a compass works—no matter where we are on earth.

The earth's magnetic force field repels harmful "solar wind" particles that would otherwise destroy us. (People who live in the far north can sometimes see this magnetic field in action. As the solar wind particles collide with gases in the earth's atmosphere, they produce beautiful colors in the night sky—the aurora borealis.) Earth's magnetic field is "just right"!

- **6. "Just Right" Rotation:** The earth spins on its axis every **24** hours. If it moved much faster, extreme weather patterns would occur—including frequent, intense hurricanes. If it moved much slower, days and nights would be so long that the earth's heating and cooling cycles would make life very difficult. Earth's rotation is "just right"!
- **7. "Just Right" Atmosphere:** The earth's atmosphere is unique—and essential to life. This 800-mile-wide vapor surrounds the earth and acts like a **greenhouse**, keeping our planet from becoming too hot or too cold. Some planets in our solar system have atmospheres that contain poisonous gases. But Earth's atmosphere is made up primarily of nitrogen and oxygen—that we breathe every day to stay alive.

Earth's atmosphere also acts as a shield to protect us from meteorites. Thousands of space rocks enter the earth's atmosphere every hour, but almost all of them burn up when they contact our thick atmosphere. We call them "shooting stars." Earth's atmosphere is "just right"!

MYSTERY #2: Does life exist anywhere else?

We have made many moon explorations, sent Viking satellites to Mars, and Voyager probes to Jupiter, Saturn, and Uranus. All have revealed extremely harsh conditions. It is clear that no other planet in our solar system can sustain life as we know it.

Some scientists hope to find life on other planets to support their belief that life began on the earth without an apparent cause (without God). For decades, radio telescopes have been beaming messages out and listening for incoming signals. So far, all our efforts to detect life beyond earth have identified nothing else "out there."

MYSTERY #3: What does the fossil evidence reveal?

God created many fish, birds, and animals that are now extinct. All members of those species have died. However, many extinct species have been preserved as fossils.

Here are some exciting fossil discoveries from the last century. What would you think if you discovered:

- 1. Perfectly-preserved woolly mammoths in Siberia. They were flash-frozen so quickly that one still had **grass** in its mouth.
- 2. Coelacanth fish swimming off the coast of Africa. They had supposedly been **extinct** for 66 million years.
- 3. Fossilized bones of thousands of extinct and **modern** animals in the same limestone deposits (Agate Springs, Nebraska).
- 4. Fresh tissue samples (DNA, skin, proteins, blood vessels, etc.) in "fossilized" dinosaurs and fish.

MYSTERY #4: Why do many scientists leave God out of creation?

In recent years, scientists began to believe natural laws alone—rejecting supernatural options. For them, the scientific method is the ultimate test of truth, and faith is a weakness that cannot stand up to scientific reasoning.

Because no one witnessed the birth of the universe, scientists must begin by making assumptions. Some assume God does not exist, so they try to make sense of everything based on science alone. Others assume God created everything and designed laws that govern the way the universe works.

Although the "Big Bang" is only one theory that attempts to explain how things came to be, science classes are taught as if it were actually true. But many scientists have strong evidence that the universe shows fingerprints of "intelligent design."

MYSTERY #5: How are human beings different from all other creatures?

People are unique in many ways. Humans are spiritual, moral, creative, emotional, and eternally-minded to a degree not observed in animals.

Evolution has no answer for why these differences exist between people and all other species on earth.

MYSTERY #6: What does it mean to be made "in God's image"?

The Lord created Adam and Eve to be like Him. This means that people can have a personal friendship with God. The Lord fashioned you to have endless fellowship with Him. That's what He wants most of all!

MYSTERY #7: Why does the universe behave in an orderly way?

Scientists agree that the universe shows a high degree of **order**. Natural laws govern everything—from the predictable behavior of tiny atoms to the precise movement of colossal galaxies. All systems follow their own sets of laws.

According to the law of **entropy**, anything that is organized, over time, becomes disorganized (like your bedroom). This law proves that the present-day ordered universe could not have evolved from chaos (Big Bang). A very intelligent Designer was clearly involved.

MYSTERY #8: Who made up the "laws of motion"?

Sir Isaac Newton was one of the most famous scientists of all time. As a young man, Isaac watched an **apple** drop from a tree. That simple observation eventually launched a scientific revolution! Newton soon proved that all objects (including planets and galaxies) attract each other due to their size and density.

The principle of universal gravitation became one of Newton's celebrated "laws of motion." These laws prove that all matter and energy **behave** predictably. Isaac Newton "discovered" the laws that God put into motion when *He* created the universe.