

Disclaimer: This packet is intended ONLY for the use of students enrolled in Leon County Schools.

Complete the assignments below.

7th Grade

Week 1:

- ☐ Life Science (SL.7.L.14; SL.7.L.15)
- ☐ Content Area Reading: How Water Loss Affects Biodiversity (LAFS.RI.1.1;SL.7.L.14)
- ☐ Skill Activity: Scientific vocabulary and textual support (RI.1.2; RI.4.10)

Week 2:

- ☐ Earth Space Science (SC.7.E.6)
- ☐ Content Area Reading: A Hole in the Planet! (RI.1.1;SC.7.E.6)
- ☐ Skill Activity: Scientific vocabulary and textual support (RI.1.2; RI.4.10)

Week 3:

- ☐ Earth Space Science (SC.7.E.6)
- ☐ Content Area Reading: The Vortex (RI.1.1;SC.7.E.6)
- ☐ Skill Activity: Scientific vocabulary and textual support (RI.1.2; RI.4.10)

Week 4:

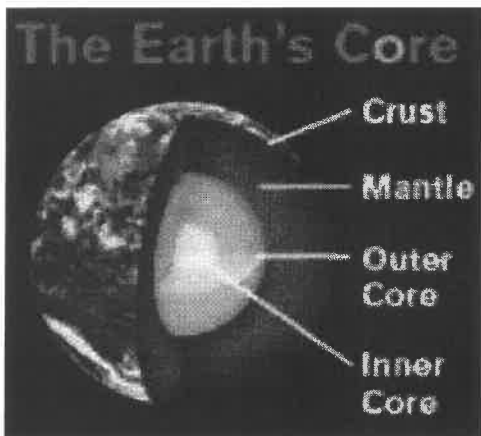
- ☐ Earth Space Science (SC.7.E.6)
- ☐ Content Area Reading: Why Is It Colder in the Winter Than in the Summer? (RI.1.1;SC.7.E.6)
- ☐ Skill Activity: Scientific vocabulary and textual support (RI.1.2; RI.4.10)

A Hole in the Planet!

Back in March of 2007, a team of 12 British scientists set sail aboard the RRS *James Cook* to find out why a large chunk of Earth's crust, or outer layer, is missing three miles below the surface of the Atlantic Ocean. In its place is a large, exposed stretch of mantle—the deep inner layer of Earth.

The crew departed from the Canary Islands, which are located off the northwestern coast of Africa. The hole is situated about 2,300 miles southwest of the Canaries. Scientists suspect the hole is 30 miles long and 30 miles wide. Using a robotic device called Toby, the team will film the site and take samples to study. "It is like a window into the interior of Earth," says scientist Bramley Murton from aboard the research ship.

A Peek Inside Earth



Leigh Haeger
Inside the Earth

Earth is made up of four layers, which get hotter and hotter from the surface to the center.

Crust (5-250 miles thick)

The crust is the surface of Earth. The thin layer is made of solid rock.

Mantle (about 1,800 miles thick)

The mantle is divided into two parts: the upper mantle and the lower mantle. Most of the mantle is solid rock, but the lower mantle rock is softer.

Outer Core (about 1,400 miles thick)

The hot outer core is made of liquid iron and nickel.

Inner Core (about 750 miles thick)

The inner core is the center of Earth. It is made up of scorching-hot iron and nickel, which stay solid due to intense pressure.

intense in · tense

Advanced Definition

adjective

1. having an extreme degree of something, such as heat, or existing in an extreme degree or state.

A laser gives out an intense light.

2. strong, as feelings or emotions.

Their faces showed an intense hatred.

3. strong or profound in effect.

The fallen soldiers suffered intense pain.

Spanish cognate

intenso: The Spanish word *intenso* means intense.

These are some examples of how the word or forms of the word are used:

1. Growing pains can cause **intense** muscle aches in your legs.
2. In summer 2005 the situation grew more **intense** as workers began clearing the land.
3. The fighting was so **intense** at Devil's Den that the area was littered with corpses.
4. The mission was as **intense** as Sonia Mia had hoped. What was her favorite part? The liftoff!
5. The **intense** heat from lightning causes the surrounding air to expand, resulting in the loud sound known as thunder.

interior in · te · ri · or

Definition

adjective

1. being inside or within.

The interior walls of the house had water damage.

noun

1. the inside area of a house, building, or car.

Mr. Adams's new car has a leather interior.

Advanced Definition

adjective

1. being inside or within.

The outside of the building was plain and simple, but the interior decorations were colorful and ornate.

2. of the inside or inner part.

The interior walls of the house were badly in need of paint.

3. pertaining to the area of land away from the coast.

Interior towns and cities were not greatly affected by the hurricane.

4. of or pertaining to the spiritual or mental life.

The priest is primarily interested in our interior life.

noun

1. the inside area.

The interior of the cave has never been fully explored.

You should clean the interior of your car as well as the outside.

2. the political or geographic inland region of a country.

We lived on the coast for years and then moved to the interior.

3. the innermost part, esp. of a person: spiritual or mental life.

A person's interior is of greater interest and importance to me than their exterior.

Spanish cognate

interior. The Spanish word *interior* means interior.

These are some examples of how the word or forms of the word are used:

1. Traveling the **interior** without maps was difficult and dangerous.
2. That's what European explorers called a mysterious creature said to inhabit Africa's **interior**.
3. Bone marrow is spongy tissue in the hollow **interior** of a bone that produces new blood cells.
4. That statistic comes from the U.S. Department of the **Interior**, an agency that manages many of the nation's parks.
5. Perhaps drought and famine had driven the Mayans from the fertile **interior** to the coastlands, where they clashed with other societies.
6. When he arrived in 1841, Europeans knew Africa only as a vague outline. There were no maps. The whole **interior** of the continent was a mystery.
7. What we were able to see using the SEM were small glass beads still adhering to the **interior** surfaces of the Bulgarian skeletal galena specimens, says Kearns.
8. He used to whistle as he unstuck them from the combs, or moved the combs from one end of the trough to the other for better bee dispersion in the **interior**.
9. Using a robotic device called Toby, the team will film the site and take samples to study. "It is like a window into the **interior** of Earth," says scientist Bramley Murton from aboard the research ship.

Name: _____ Date: _____

1. Review the graphic of the inside of Earth. Which layer makes up the center of Earth?

- A. crust
- B. mantle
- C. outer core
- D. inner core

2. As described in the passage, what is Toby, the robotic device, helping scientists uncover?

- A. why Earth is made up of different layers
- B. the size of the large gap in Earth's crust
- C. the reason why part of Earth's surface has disappeared
- D. how many more holes in Earth's crust are out there

3. Scientist Bramley Murton says "it is like a window into the interior of Earth".

Why might the author have chosen to include this quote in the article? He chose the quote because

- A. the language illustrates how the hole offers a clear view into the crust.
- B. it explains why the hole occurred in that particular spot in the Atlantic Ocean
- C. it persuades more researchers to study the area
- D. the language illustrates the size of the hole in the earth's crust

4. Read the following sentence from the passage: "The crew departed from the Canary Islands, which are located off the northwestern coast of Africa."

In this sentence, the word **departed** most nearly means

- A. arrived
- B. left
- C. journey
- D. boarded

5. Which statement supports the main idea of this passage?

- A. A robotic device is helping scientist learn about the hole.
- B. Earth's layers get hotter and hotter toward the center.
- C. The gap is located 2,300 miles southwest of the Canary Islands.
- D. Scientists are studying a mysterious hole in Earth's surface.

6. Which layer of the Earth can be seen from the open hole?

7. As a result of their work, what do scientists hope to learn? Cite evidence to support your answer.

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

The expedition was a rare opportunity for the scientists _____ it isn't often that they get to see the center of the earth!

- A. but
- B. finally
- C. because
- D. so