

LAYERS OF EARTH

TEXT MARKING DETECTIVE

LAYERS OF EARTH

... looks like one solid planet, it is more complex than ... is made up of four main layers, some known as the ... is the innermost, these layers are known as the ... core, and inner core. Over time, the inside of the earth ... the outer crust turned hard. The inside of the earth ...

... is the thinnest layer of the earth. It is the outermost ... exists including humans, animals, sea life, and plants. ... the ocean is known as the oceanic crust and it is ab ... crust, also called sima, is made up of mostly basalt ro ... (rock) that covers the ocean floor. On land, the con ... (continental crust) forms the continents. It can range from 5km to ... made up of granite and sedimentary rock. The averag ... from broken rocks and debris. Roughly 40% of th ... 35km, or 21 miles. These rocks were formed over ... e from the atmosphere.

The mantle is the next layer. It is much thicker ... about 1800 miles deep. The mantle is composed of ... and other semi-solid rocks that flow under pressu ... large temperature difference between the both ... mantle. It is the heaviest layer and makes up r ... mantle. It is where the tectonic plates can t ...

CASE FILE

Cross off the images you use as an answer. What remains will solve the case!

SUSPECTS				

LOCATION				

EVIDENCE				

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... spins, the ... inside the outer ... moves around.

16 What ... coldest ...

Crust

Sima

Mantle

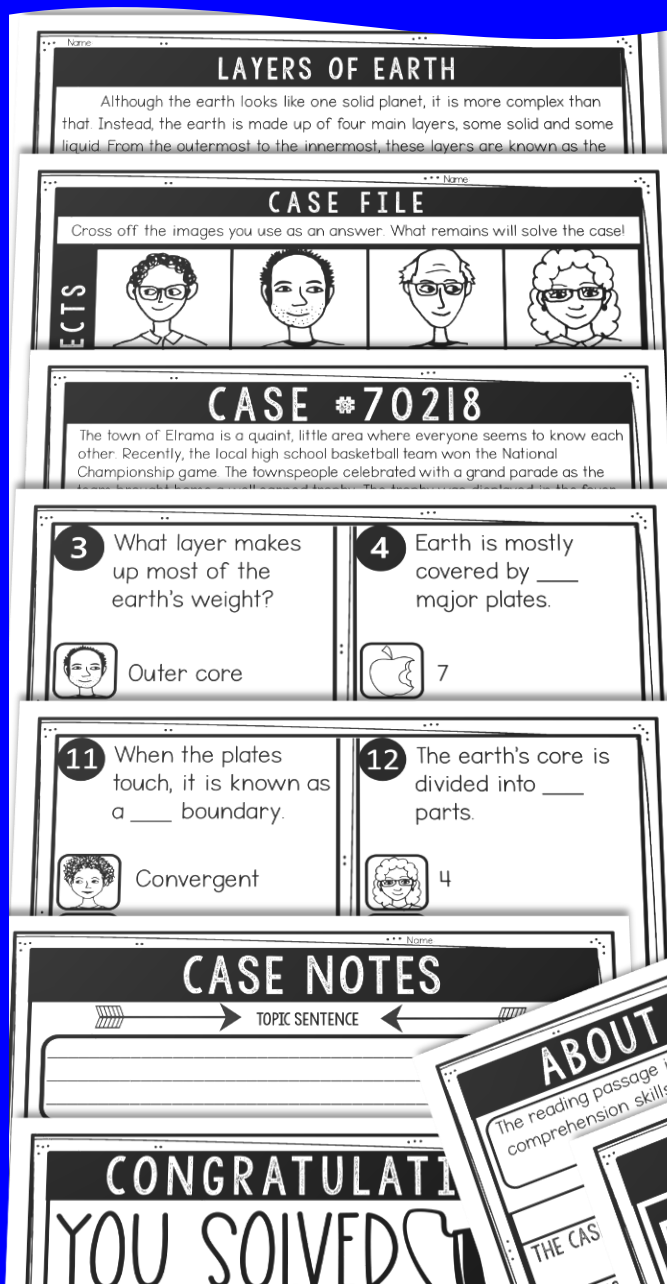
Outer core

18 The ... is when the crust ends, and the mantle begins.

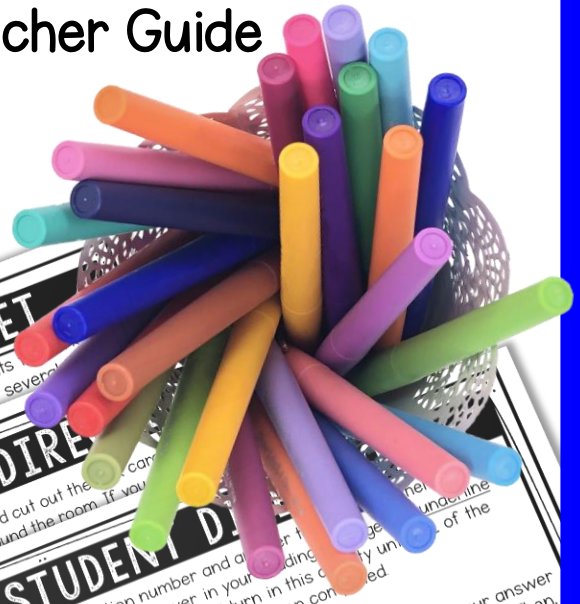
Mesosphere

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WHAT'S INCLUDED?

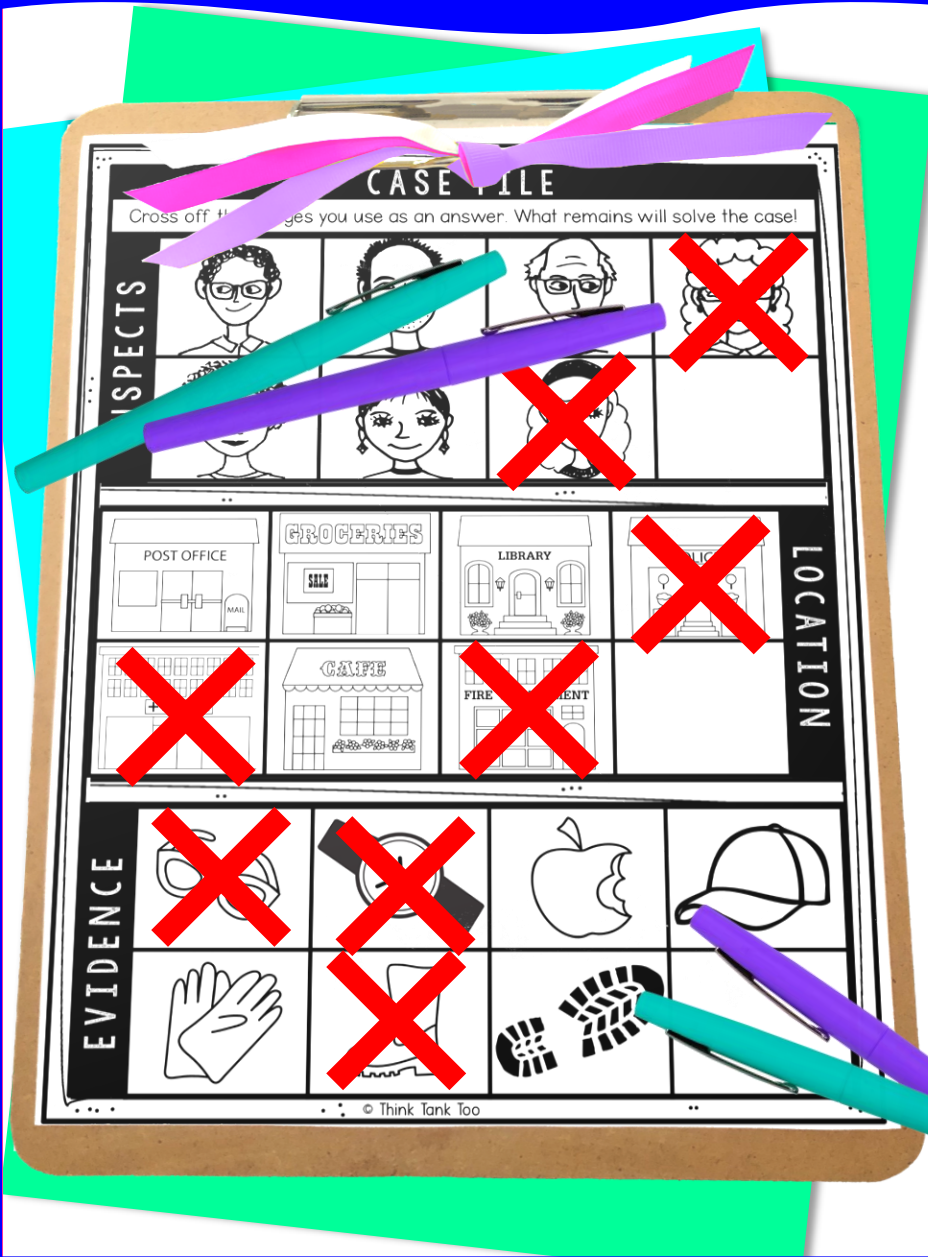


- ✓ Case File Dossier
- ✓ 16 Questions
- ✓ Graphic Organizer
- ✓ Reading Passage
- ✓ Completion Certificate
- ✓ Student Recording Sheet
- ✓ Student Directions
- ✓ Teacher Answer Key
- ✓ Teacher Guide



CASE DOSSIER





As students answer each question, they will eliminate suspects, locations, and evidence.







18 QUESTIONS

CONGRATULATIONS YOU SOLVED THE CASE!
DETECTIVE NAME: _____



3 What layer makes up most of the earth's weight?

-  Outer core
-  Crust
-  Mantle
-  Inner core

4 Earth is mostly covered by _____ major plates.





-  7
-  16
-  2
-  5

5 What life exists on the crust?



-  Human
-  Animals

6 _____

7 What is the mantle composed of?





-  Melted iron
-  Minerals
-  Semi-solid rocks
-  All of the above

9 What is the oceanic crust also known as?

-  Sial
- 








10 _____ of the _____ lies on the _____ continent _____ 20%

12 The earth's core is divided into _____ parts.

-  4
-  3
-  2
-  5

14 The outer core is extremely hot and is made up of liquid _____

CASE FILE
Cross off the images you use as an answer. What remains will solve the case!

SUSPECTS

GROCERIES **LIBRARY** **POLICE**

TEXT MARKING

After answering each question, students will find evidence in the text to support their answer.

LAYERS OF EARTH

Although the earth looks like one solid planet, it is more complex than that. Instead, the earth is made up of four main layers, some solid and some liquid. From the outermost to the innermost, these layers are known as the crust, mantle, outer core, and inner core. Over time, the solid layers cooled down and the liquid layers turned solid. The innermost part of the earth remained hot and liquid.

The crust is the outer layer of the earth. It is the outermost layer and consists of the lithosphere including humans, animals, sea life, and plants. The crust underneath the ocean is known as the oceanic crust and it is about 8km thick. This crust, also called sima, is made up of mostly basalt rock (a dark, fine-grained rock) that covers the ocean floor. On land, the continental crust, also called sial, forms the continents. It can range from 5km to 70km thick and is made up of granite and sedimentary rock. The average thickness is around 35km, or 21 miles. These rocks were formed over extended periods of time from broken rocks and debris. Roughly 40% of the earth's surface lies on top of the continental crust. The crust is the earth's coldest layer because it is exposed to the atmosphere.

The mantle is the next layer. It is much thicker than the crust and is about 1800 miles deep. The mantle is composed of melted iron, minerals, and other semi-solid materials that flow under pressure. This flow is due to a large temperature difference between the bottom and the top of the mantle. The mantle makes up most of the earth's weight. The boundary between the crust and the mantle is called the Moho. Where the plates meet, tectonic plates can be found. Earth is mostly covered by several tectonic plates. These plates are made of broken pieces of the crust, and they move very slowly in different directions, just 1-2 inches per year. When the plates meet, they are known as a convergent boundary. Transform boundaries are where the plates slide past each other. Different results come from these boundaries, depending on the movement. For example, if the

