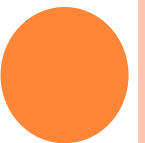


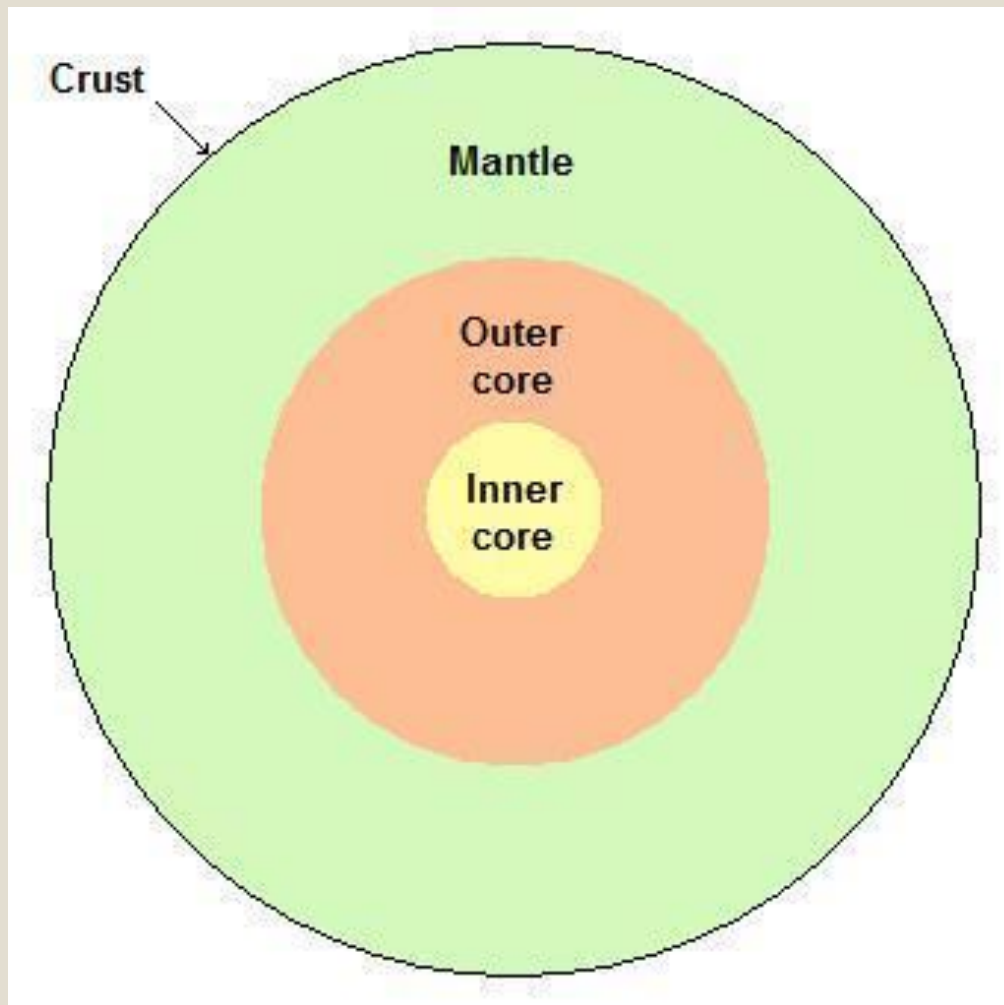
LEARNING TARGET

6.E.2.1 Summarize the structure of the earth, including the layers, the mantle and core based on the relative position, composition and density.

- **compare and contrast the crust, mantle, outer core and inner core**



Layers of the Earth



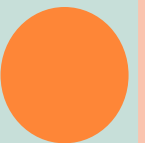
EARTH'S LAYERS

VOCABULARY

Inner core – a ball of hot solid metal at the center of the earth made of iron

Outer core – liquid layer of metal nickel & iron that surrounds the inner core


Mantle – earth's thickest layer between the outer core and crust made of magma. This is made of silicate rocks



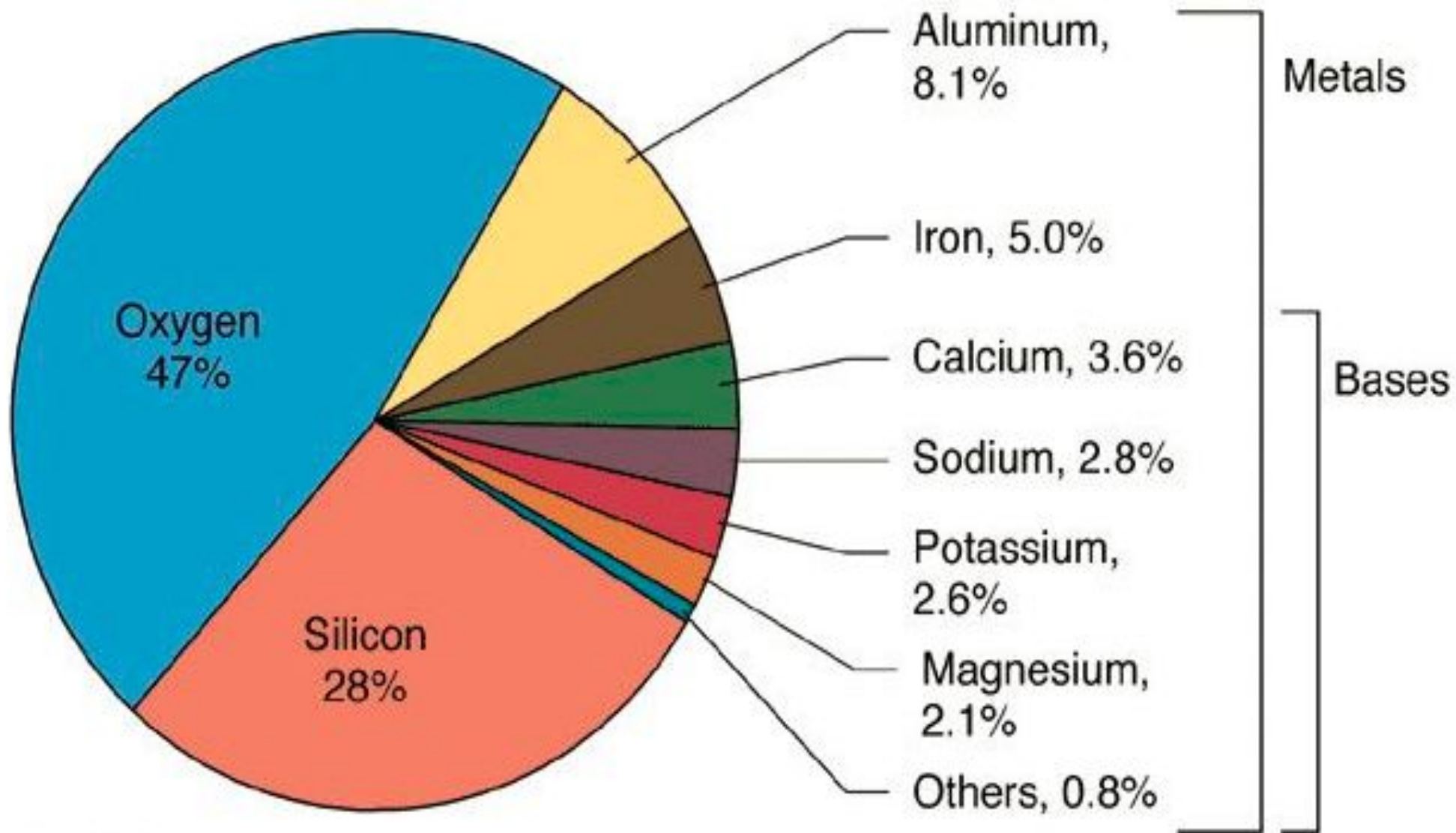
Crust – the top layer of earth
made of a thin layer of cool rock

Lithosphere – the layer of earth
made of the crust and the rigid
rock of the upper mantle which
is broken into tectonic plates

Asthenosphere – the layer in
earth's upper mantle directly
under the lithosphere in which
rock is soft and weak because it
is close to melting



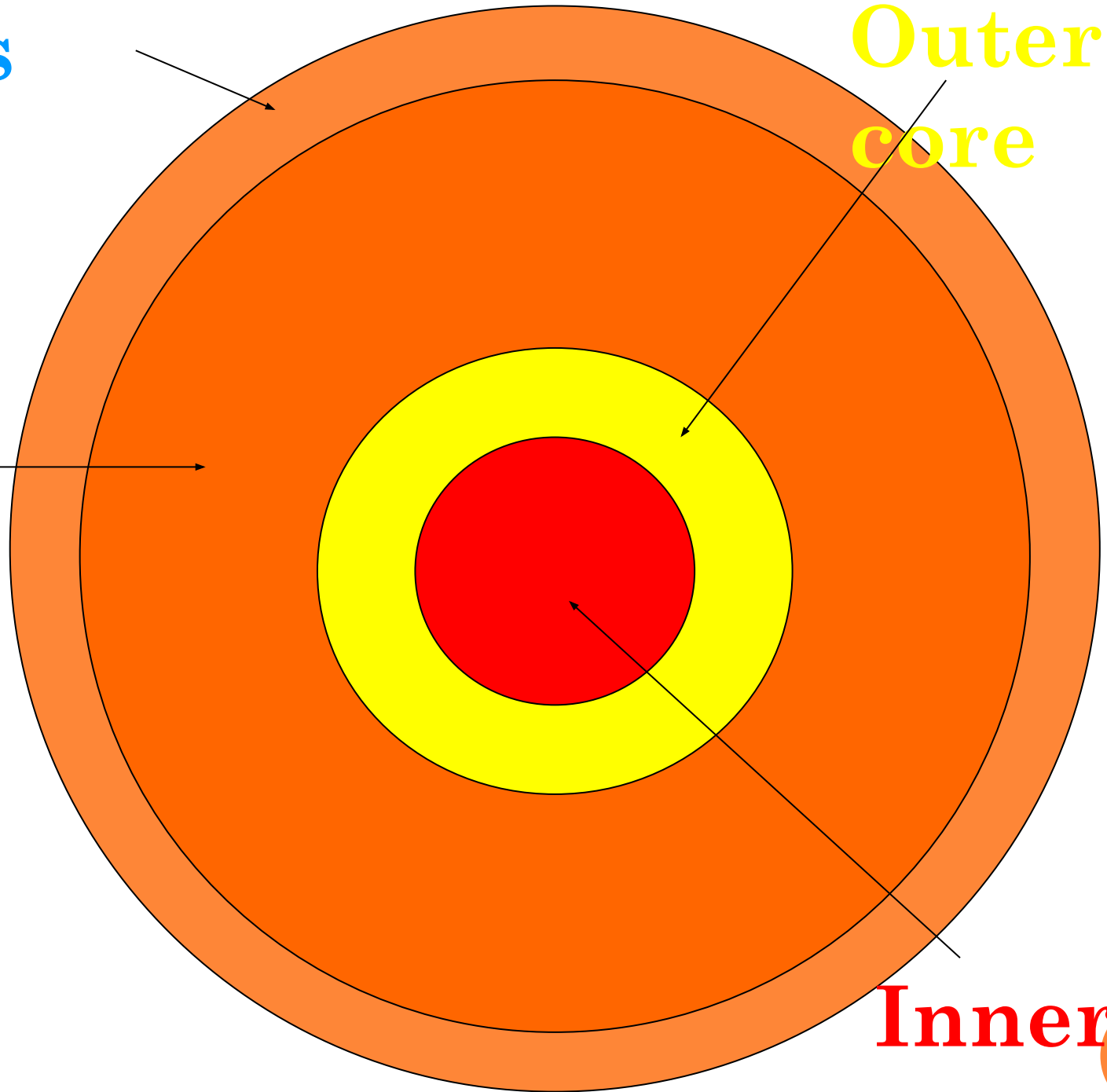
MAKE UP OF THE EARTH'S CRUST



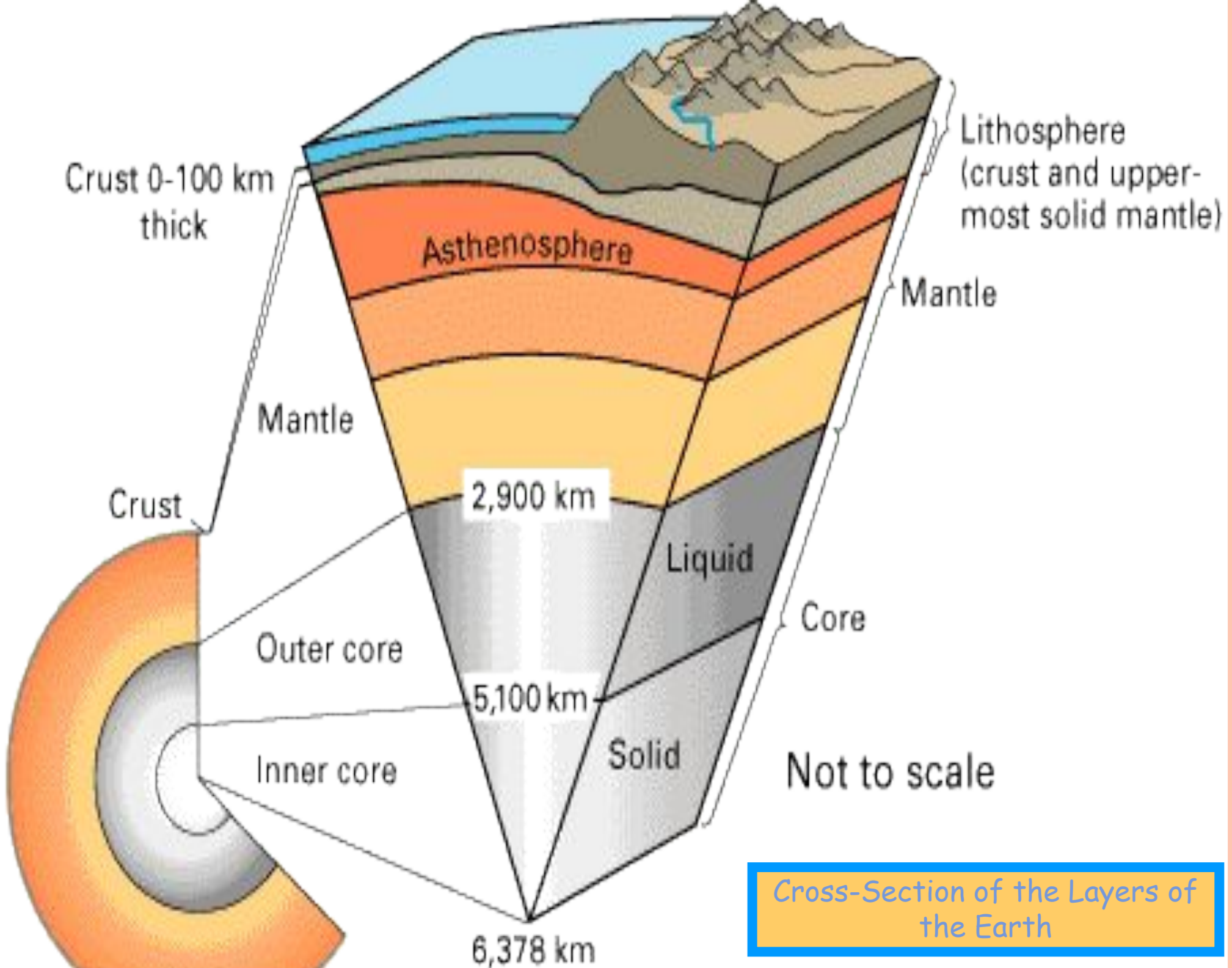
**Earth's
Crust**

**Outer
core**

Mantle

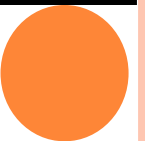


**Inner
core**



Data Table

Depth	Name of Layer	What Layer is Made Of
20 km	crust	solid rock, mostly granite and basalt
150 km	asthenosphere (mantle)	soft slow flowing material
2,000 km	mantle	hot, but solid material
4,000 km	outer core	molten iron and nickel
6,000 km	inner core	solid iron and nickel



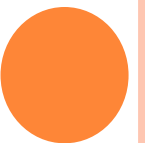
LAYERS OF THE EARTH VIDEO SUMMARY

Make sure you have logged into your Discovery Education account through the Wake ID page first.

#1 Layers of the Earth

#2 Structure of the Earth Exploration

#3 How do Scientist's know what's inside the Earth?



PAPER PLATE ACTIVITY REVISITED

- Create a model of the earth by labeling the layers
- Label inner core (4000 miles deep in the earth - 800 miles wide) , outer core (1400 miles wide), mantle (1800 miles wide), crust (8 miles), lithosphere, asthenosphere,
- indicate liquid and solid, density, and temperature gradient.

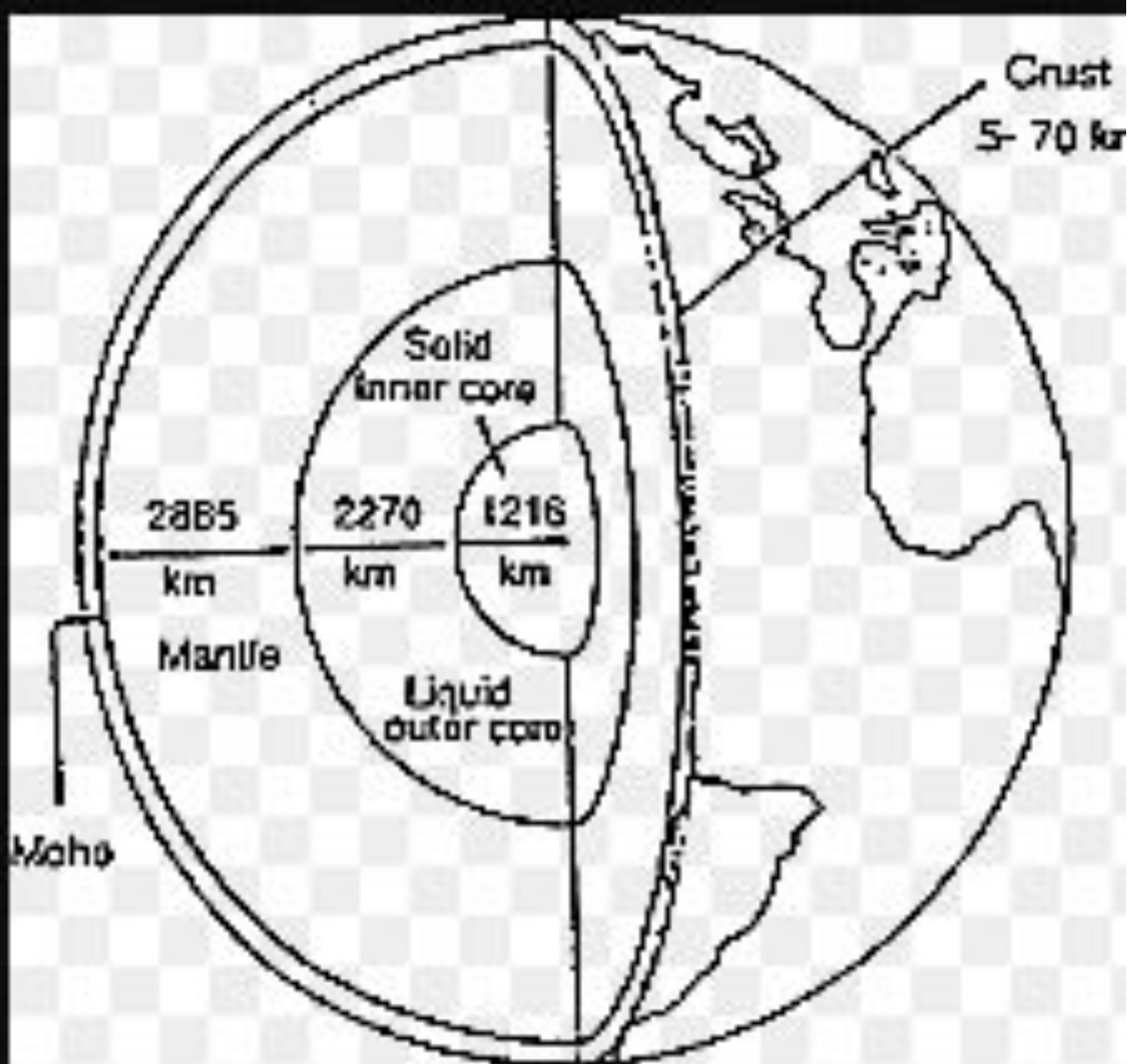


Figure 1. The Earth's layers. The Moho is the boundary between crust and mantle. Modified from NSTA/FEMA (1988).

Exit Ticket

1. How many major layers are there in the earth?
a.) 1 b.) 2 c.) 3 d.) 4

- 2.) How do scientists know what is inside the earth?
a.) special equipment b.) volcano and rocks
c.) Voyage to the center of the earth d.) super powers

- 3.) Which layer is made of liquid?
a.) mantle b.) outer core c.) lithosphere d.) asthenosphere

- 4.) The pressure on the lithosphere is the smallest. True or false

- 5.) The density in the center of the earth is greater than here on the surface. True or False

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