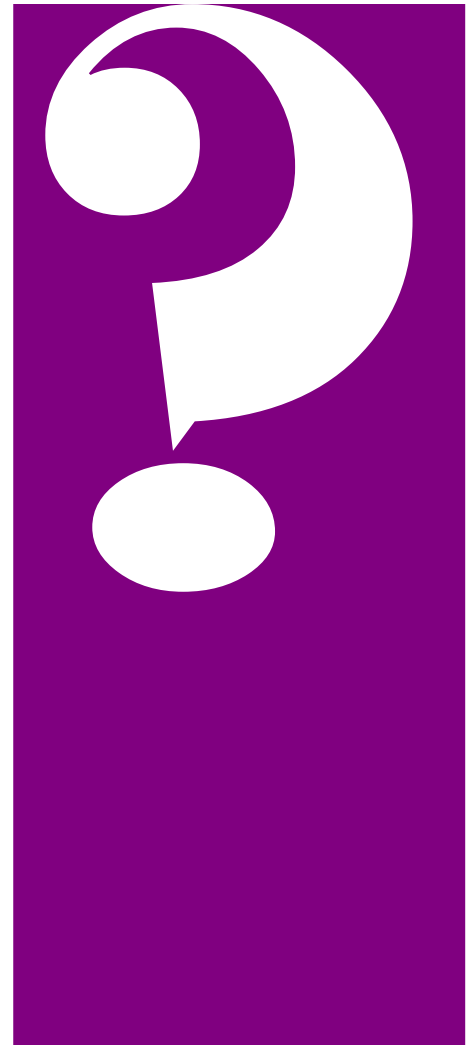


**What are the processes and structures found within the earth that cause natural events?**

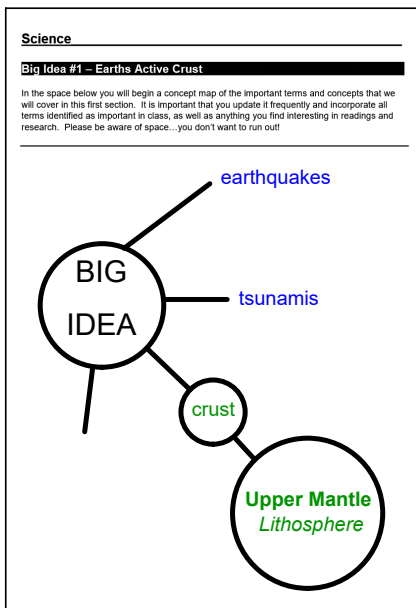


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## The Earths Crust and Resources - Setting Purpose

Read, as a class, the first page of the unit on 253 - this reading will provide you with a basic idea of what this unit and section of the text will cover.

When we are done reading take a moment to write down as much as you know about the first big idea that we will cover on the handout provided. As we progress through this unit update your concept web with terms and ideas that relate to this first 'Big Idea'.



Creating a concept web...

Concept maps have a central theme or an idea.

Supporting facts, ideas and information radiate off of this 'central' idea creating a visual map of what you know about a concept.

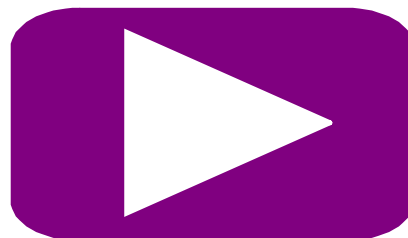
Generally you do a before learning map to identify **what you already know**, and add to the map as learning occurs to show **what you have learned through instruction**.

In our first example of the earths core and how it affects natural processes, students identified concepts like earthquakes and tsunamis as events that are related to the structure of the earth.

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The Earths Crust and Resources - Connections

Watch Me:



1

## The Earth's Crust and Resources - Setting Purpose

\* The crust includes the continents and ocean basins. It ranges in thickness from 5 to 40 km thick in the continents and 5-10 km thick in the ocean basins.

The crust- as scientists refer it, is not we walk on. The layers of dirt and silt that cover the crust are normally considered to be separate from the crust.

\* Below the crust is the mantle, a dense, hot layer of semi-solid rock approximately 2,900 km thick. The mantle is hotter and denser because temperature and pressure inside the Earth increase with depth (as we dig down!).

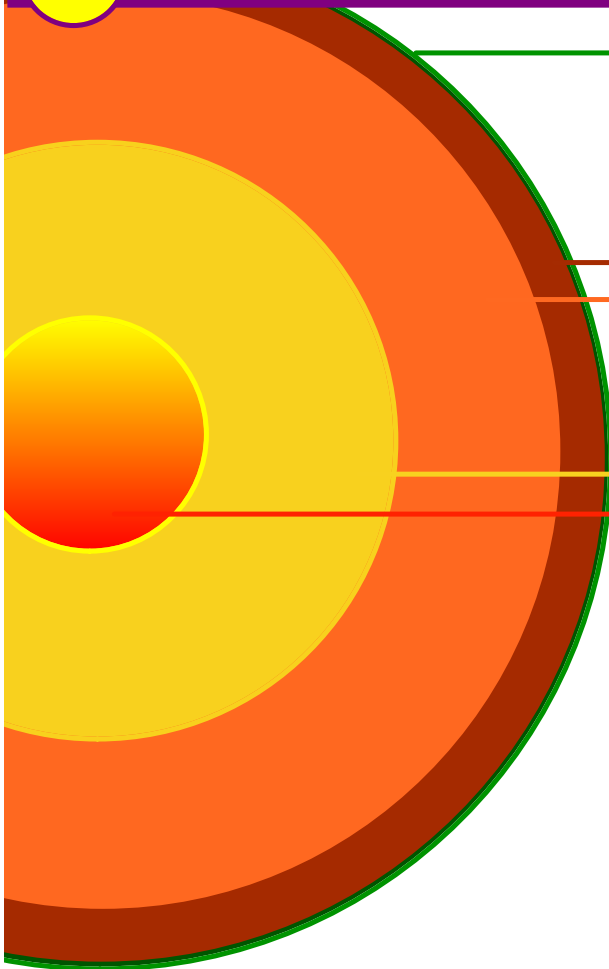
The Lithosphere is the rigid outer part of the earth, consisting of the crust and upper mantle.

\*At the center of the Earth lies the core, which is nearly twice as dense as the mantle because its composition is metallic rather than stony.

\*The Earth's core is actually made up of two very distinct parts: a 2,200 km-thick liquid outer core and a 1,250 km-thick solid inner core. As the Earth rotates, the liquid outer core spins, creating the Earth's magnetic field.

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## The Earth's Crust and Resources - Diagram



The **crust** is the part of the earth that moves around, on the liquid'y' viscous layer of the upper mantle. This layer makes up the land we live on as well as all of the ocean floors. These two 'moving parts are called the lithosphere.

The mantle is made up of the **upper mantle**, and the **lower mantle**. The upper mantle is 'gooey' and fluid, while the lower mantle is more solid.

The core is also made up of two layers the **outer core (liquid)** and the iron and nickel **inner core (solid)**. The inner core does some really cool stuff with electromagnetic fields that protect us from space rays! Cool...and spacey!

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## The Earth's Crust and Resources - Setting Purpose

Your earth diagram (due at the end of the period on Friday September 15) will be marked using the rubric below. As we have reviewed this in class you should be aware of what is expected for your final copy. If you have any questions please get clarification BEFORE you hand in your diagram. 😊

	<b>C</b>	<b>B</b>	<b>A</b>
<b>Diagram Drawing and Colouring (ELA – representing)</b>	Diagram is poorly drawn and the features are not distinguished. Coloring shows little effort and little or no improvement.	Diagram has a basic drawing with some features showing. Coloring is fairly neat and skillfull, shows some improvement.	Diagram is drawn very well and distinguished. Coloring is neat and skillfull and shows effort based on growth from previous efforts.
<b>Labels (Science)</b>	The diagram has no labels and explanations for the parts of the earth's core.	The diagram has some labels/ explanations for the parts of the earth's core.	The diagram has all labels/ explanations for the parts of the earth's core.
<b>Extra features - additional knowledge from class(Science)</b>	No other features are including in this diagram other than the required four(Crust, Mantle, Core, inner core)	At least one extra feature is included and identified in this diagram	Two or more extra features are included and identified in this diagram.