## **Earth's Resources**

S6E6: Obtain, evaluate and communicate information about the uses & conservation of various natural resources and how they impact the Earth.

- A. Ask questions to determine differences between renewable/sustainable energy resources.
- B. Design and evaluate solutions for sustaining the quality and supply of natural resources such as water, soil and air.



Term	Info	My Picture Clue
natural resources	materials or substances such as minerals, forests, water, and fertile land that occur in nature and can be used for economic gain.	
renewable resource	a substance of economic value that can be replaced or replenished in the same amount or less time as it takes to use up the supply.	wind HEP wood (blomass)
nonrenewable resource	A substance of economic value that can not be replaced as fast as it is used. I	Non-Renewable Energy
fossil fuels	a natural fuel such as coal or gas, formed in the geological past from the remains of living organisms.	
minerals	A pure substance; either an element or a compound. Minerals are natural, inorganic substances that are important parts of all matter.	
rocks	A mixture of minerals. There are three main kinds of rocks: igneous, sedimentary and metamorphic.	

Term	Info	Picture
mining	the process or indus- try of obtaining coal or other minerals from a mine.	
deforestation	the clearing of trees, transforming a forest into cleared land.	

### **Learning Targets:**



- 1. I can give examples of renewable and nonrenewable natural resources—including oil, trees, soil, metals.
- 2. I can defend rocks and minerals as nonrenewable resources.
- 3. I can list the 3 types of fossil fuels and analyze them in terms of whether or not they are renewable and what the costs/benefits are.
- 4. I can describe the difference between rocks and minerals.
- 5. I can develop ways to conserve Earth's natural resources.
- 6. I can identify and describe alternative energy sources and explain whether they are renewable or nonrenewable (hydroelectric, solar, geothermal, nuclear, and biomass).

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natural resources		
renewable resource		
nonrenewable resource		wind wind (blomass)
		Non-Renewable Energy
fossil fuels		idhural Goal
minerals		
minerais		
rocks		

Term	Info	Picture
mining		
deforestation		

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Minerals in Rock Composition

S6E5. Obtain, evaluate, and communicate information to show how Earth's surface is formed.

A. Plan and carry out an investigation of the characteristics of minerals and how minerals contribute to rock composition.



Term	Info	Picture
Mineral	A pure substance; either an element or a compound. Minerals are natural, inorganic substances that are important parts of all matter.	
Rock	A mixture of minerals. There are three main kinds of rocks: igneous, sedimentary and metamorphic.	
Inorganic	Matter that is nonliving; and has never been living.	
Organic	Matter that comes from living things.	
Crystals/crystalline	Having the structure or form of a crystal.	
Density	The amount of matter in a given volume.	

Term	Info	Picture
Hardness	The ability of a mineral to be scratched.	1 TALC  C R 2 GYPSUM E A 3 CALCITE COPPER COIN G 4 FLUORITE
Streak color	The color a mineral leaves behind in powdered form when you test it on a streak plate.	
Luster	The way light is reflected off of an object.  Metallic/nonmetallic are the two main categories.	Metallic Luster  Nonmetallic Luster
Cleavage	When a mineral splits/breaks along a flat, straight surface.	
Fracture	When a mineral breaks in an irregular/not straight manner.	
Compound	Two or more elements chemically combined; a pure substance.	H C H
Element	A substance that can not be broken down into any simpler substances.	Gold <b>79</b> A U  196.97

# Learning Targets

- 1. I can describe the mineral characteristics that all minerals have in common.
- 2. I can identify minerals based on their characteristics; density, luster, streak, hardness, color, break (cleavage/fracture).

Minerals in Rock Composition

S6E5. Obtain, evaluate, and communicate information to show how Earth's surface is formed.

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Term	Info	Picture
Mineral		
Rock		
Inorganic		
Organic		
Crystals/crystalline		
Density		

Term	Info	Picture
Hardness		1 TALC  C R 2 GYPSUM E A 3 CALCITE  N C COPPER COIN G 4 FLUORITE
Streak color		
Luster		Metallic Luster  Nonmetallic Laster
Cleavage		
Fracture		
Compound		H C H
Element		Gold 79  A U  196.97

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