

What is the difference between renewable and nonrenewable resources?

Renewable resources are substances that can be _____. Some renewable resources are _____, which means they are unaffected by human use. For example, _____ and solar energy.
 _____ resources are substances of limited supply that cannot be replaced. They are used _____ than can be replaced in nature. These include oil, natural gas, and _____.

MINERALS AND ORES

Ores – _____ of minerals from which metals and nonmetals can be removed profitably
 Examples: iron from magnetite and hematite ores, mercury from _____, and aluminum from bauxite

How Do Ores Form?

- Density differences – chromium, nickel, lead
- _____ metamorphism – lead, copper, zinc
- _____ mineral solutions – gold, tin, lead, copper, platinum
 - **veins** (finger-like bands of minerals)
 - **lode** (large number of veins)
- Placer deposits from weathering and _____ – gold and other heavy minerals

Environmental Problems:

- 1) Strip Mining removes _____ and vegetation, contaminates streams, and displaces entire ecosystems.
Pros: Strip mining is safer than pit mining, provides _____ stimulus to local communities, and provides resources for power.
- 2) At the current rate of use, many mineral reserves will be depleted in less than _____ years.

FOSSIL FUELS

Fossil fuel – fuel formed from the remains of living organisms by exposure to _____ and _____ in the Earth’s crust over long periods of time.

Includes _____, natural gas, and coal.
 Made primarily of _____. When burned they release energy as heat and light.

COAL - The higher the _____ content, the better fuel it will make.

- 1) _____ - (undeveloped) 25% Carbon
- 2) Lignite - up to 35% Carbon
- 3) Bituminous - up to 85% Carbon
- 4) _____ - up to 98% Carbon

Environmental Problems:

- 1) Burning fossil fuels contributes to air pollution and can lead to _____ and public health issues.
 Methane (a harvestable natural gas) is a leading greenhouse gas and major contributor to climate change.
 Ozone is created as a waste product from coal burning power plants and is directly correlated to asthma and other health-related illnesses.
- 2) Coal ash waste and other pollutants negatively affect _____ and _____ resources.
- 3) Used at a rate _____ of times faster than they can be _____.

What are ores and how do they form?

What is the biggest problem regarding the use of minerals and ores?

What are some environmental problems associated with the use of fossil fuels?

Ch 11 Notes – Resources and the Environment

What are the benefits to using fossil fuels?	<u>Pros to Fossil Fuels:</u> <ol style="list-style-type: none">1. Easier to find2. Extremely _____3. Easier to transport4. Generates many _____5. Easy set up
What is nuclear energy? Does it have any drawbacks?	NUCLEAR ENERGY <p>Bombarding _____ with neutrons splits its atoms, creating energy. One gram of uranium releases as much _____ as burning _____ tons of _____.</p> <u>Environmental Problems:</u> <ul style="list-style-type: none">• Limited disposal methods for nuclear _____• Potential disasters (“_____”) at nuclear power plants
How do we conserve energy?	HOW DO WE CONSERVE ENERGY? <ol style="list-style-type: none">1) _____ energy consumption.2) Make more _____ use of energy.3) Create machinery that will use _____ energy to do the _____ amount of work.4) Increase use of _____ or renewable energy sources.
What are some alternative energy sources?	ALTERNATIVE ENERGY SOURCES – “GREEN” POWER <ol style="list-style-type: none">1) Hydroelectric2) _____3) _____4) Geothermal5) Ocean Wave Energy6) Biomass
How do we conserve resources?	HOW DO WE CONSERVE NONRENEWABLE RESOURCES? <ol style="list-style-type: none">1) Use alternative materials2) Use _____3) _____