

11.2

Why Do Industries Face Energy Challenges?



11.2

Active solar energy Solar radiation captured with photovoltaic cells that convert light energy to electrical energy.

Animate power Power supplied by animals or by people.

Biomass fuel Fuel derived from wood, plant material, or animal waste.

Demand The quantity of something that people wish to consume and are able to buy.

Fission The splitting of an atomic nucleus to release energy.

Fossil fuel An energy source formed from the residue of plants and animals buried millions of years ago.

Fusion Creation of energy by joining the nuclei of two hydrogen atoms to form helium.

Industrialization The process by which an economy is transformed from primarily agricultural to one based on the manufacturing of good

Mercosur (or Southern Common Market) An economic supranational organization dedicated to improving trade between it's members in South America

Nonrenewable energy Energy from a source that is depleted when used, such as fossil fuels or nuclear

Organization of Petroleum Exporting Countries (OPEC) A supranational organization of countries (mainly in Southwest Asia and Africa with Venezuela) dedicated to maintaining a steady supply of oil

Passive solar energy systems Solar energy systems that collect energy without the use of mechanical devices.

Potential reserve The amount of a resource in deposits not yet identified but thought to exist

Proven reserve The amount of a resource remaining in discovered deposits.

Renewable energy Energy from a source that is not depleted when used, such as wind or solar power

Right-to-work law A U.S. law that prevents a union and a company from negotiating a contract that requires workers to join the union as a condition of employment

Right-to-work state States in the USA whose laws prevent unions from requiring people to join the union to work in an industry (mainly Republican states)

Supply The quantity of something that producers have available for sale.

Key Issue#: 11.2.1	Name _____Period_____
Learning outcome Identify the principal sources of energy supply and demand	
Questions/Main Ideas	Notes
Supply	
Demand	
Animate power	
Fossil fuel	<div>Coal</div> <div>Petroleum</div> <div>Natural Gas</div>
Nonrenewable energy resources	
Energy Demand	<div>Industry</div> <div>Transportation</div> <div>Homes</div> <div>Commercial</div>

Pause and reflect	The use of one of the three fossil fuels is increasing in the United States in the twenty-first century. Which one is it? Why might that be the case
Summary	
Questions for class	1.
	2.
	3.

Key Issue#: 11.2.2	Name _____Period_____
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Learning outcome Describe the distribution of fossil fuel production and reserves

Questions/Main Ideas	Notes
Distribution of Coal	
Distribution of Petroleum	
Distribution of Natural Gas	
Proven reserve	<p>Coal</p> <p>Natural gas</p> <p>Petroleum</p>
Pause and Reflect	How does the distribution of proven reserves differ from the distribution of current production?
Summary	
Questions for class	1.
	2.

	3.

Key Issue#: 11.2.3	Name _____ Period _____
Analyze changes patterns of oil trade and demand	
Questions/Main Ideas	Notes
World oil trade	
U.S. Oil Supply and Demand	
Potential reserve	<div>Fields yet to be developed</div> <div>Fields yet to be discovered</div>

Summary	
Questions for class	1.
	2.
	3.

Key Issue#: 11.2.4	Name _____Period_____
Learning Outcome Evaluate possible future options for fossil fuels	
Questions/Main Ideas	Notes
Reducing Demand	

	<p>Conservation</p> <p>Price</p>
Unconventional fossil fuel resources	<p>Oil sands</p> <p>Hydraulic fracturing</p>
Pause and reflect	Do you consider fuel efficiency when you or your family buy a new vehicle? Why or why not?
Summary	
Questions for class	1.
	2.
	3.

<p>Key Issue#:</p> <p>11.2.5</p>	<p>Name _____ Period _____</p>
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Learning outcome Describe the distribution of nuclear energy and challenges in using it.

Questions/Main Ideas	Notes
Distribution of Nuclear power	
Potential Accidents	
Radioactive Waste	
Bomb Material	
Limited Reserves	
High Cost	
Pause and Reflect	Should dependency on nuclear energy be increased or decreased? Why?
Summary	
Questions for class	1.
	2.
	3.

Key Issue#:

11.2.6

Name _____ Period _____

Learning Outcome Identify alternative sources of energy and challenges to using them

Questions/Main Ideas	Notes
Biomass	
Hydroelectric power	
Wind Power	
Geothermal	
Pause and reflect	Does your local power company offer options for using alternative energy?
Summary	
Questions for class	1.
	2.
	3.

Key Issue#:

11.2.7

Name _____ Period _____

Learning Outcome Compare passive and active solar energy

Questions/Main Ideas

Notes

Passive solar energy system

Active solar energy system

Pause and reflect

Why are people warned not to leave a dog or child unattended in a parked car during the summer?

Summary

Questions for class	1.
	2.
	3.