

## 4<sup>th</sup> Grade

### Earth & Space Science Chapter 8 Lesson 3

Page	Question	Answer(s)	Links/Sources
281	How does mining mineral ores change the land?	The land becomes unrecognizable from what it was before mining.	
282	What does God say about being respectful about the natural resources He provides for us?	God says there is a time for destroying those who destroy the earth.	
282	How are solar panels different from an oil well?	In theory, renewable energy will last forever where nonrenewable, like fossil fuels will run out.	
283	What might be a problem with using wind as an energy source?	Wind turbines only work when it is windy. Burning oil, hydroelectric and nuclear can all be turned up or down according to our energy needs at that moment.	
284	Could you make a fossil fuel from dead, decaying plants found in your backyard?	Simple answer: No. It takes way too long for dead grass to become useable oil. Complex answer: Yes, you could apply high heat and pressure to biomass in a cylinder to create a fuel. It would take a fantastically greater amount of energy to do this than what you get out of it though, so right now it is just a lab experiment.	
284	Why are fossil fuels considered nonrenewable?	Because it takes thousands of years for natural processes to create them. We barely know the names of anyone who lived 1000+ years ago. Long term energy creation just isn't something humans can do.	
285	What are some objects you use in your daily life that can be traced back to a type of ore?	Car – Iron Ore Electric Wire – Copper Ore Cell Phone – Rare earth elements like lithium.	
286	What percentage of cans did each collect?	Since they collected 100 cans in total: Sophia $34/100=34\%$ - Peter $26/100=26\%$ - Ray $40/100 = 40\%$	

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287	#2 What is conservation?	The protection and careful use of Earth's resources. National Parks were set up as one type of Conservation.	
287	#3 Which term refers to a deposit of minerals that can contain valuable metals?	B. Ore	
287	#4 Put the following phrases into the most logical sequence.	1. Ancient plant dies. 2. Dead plant is buried. 3. Ancient plant decays. 4. Plant subjected to heat and pressure. 5. Many Years Pass. 6. Fossil fuel forms.	
287	#5 Which fossil fuel is used in the production of gasoline?	Oil	
287	#6 Describe one change you could make to conserve a nonrenewable resource.	You could install an exterior biomass burner for your home. If you have just a few acres of trees, just the trimmings would be enough to heat your entire home.	
287	How does Elaine Kennedy's faith influence her when studying Earth's layers?	Her faith allows her to practice empirical science based only on observable facts. She does not need to resort to conflicting human theories to explain the unknown.	
288	How did growing up in Oklahoma influence Elaine Kennedy's career?	She gathered fossils as a child. Now she studies them professionally.	
289	What types of data might an anthropologist record while observing groups of children at different playgrounds in an area?	Local holidays. Local clothes. Local music. Women's rights. Local food. Local religion(s).	
289	Why would mining companies need petrologists?	A petrologist can use ground imaging radar to tell companies where to dig to find the specific mineral/ore they are looking to produce.	