

## 8th Grade

### Life Science

#### Ch. 4 Lesson 3

Page	Question	Answer(s)	Links/Sources
139	How much of an impact do you think an individual can have on an ecosystem?	Answers may vary. Humans can have a great impact on their environment.	
139	What actions have you taken in the past week that would affect ecosystems?	Answers may vary.	
139	Did your actions have positive or negative effects on ecosystems? What were those effects? How did your actions affect the animals in ecosystems?	Answers may vary.	
139	What are some examples of less obvious human impacts?	Answers may vary. Throwing trash on the ground.	
139	How do you think animals in these ecosystems are able to adapt to the changes?	They may learn to avoid certain trash or use it for shelter.	
139	How might animals react if they can't adapt?	They may get hurt or die.	
139	What materials do we take from the Earth?	Answer may vary. Gas, water, minerals.	
139	Which of these "ripples" might be good?	Answers may vary. It may trigger for resource to be replenished.	
139	Which might be bad?	Answers may vary. It may damage something else in nature.	
139	What happens when a forest is cut up into many smaller forests to build roads or provide land for kinds of development?	Answers may vary. It affects the animals that live in that forest, affects the environment.	
139	Does this change affect only the local area?	Answers may vary. It can affect the surrounding areas as well, like the local watershed.	
139	How might small changes lead to widespread consequences?	Answers may vary. It could carry pollution to other places. Affect organism that migrate to other locations.	

## 8th Grade

### Life Science

#### Ch. 4 Lesson 3

Page	Question	Answer(s)	Links/Sources
139	What is the impact of road building in your community?	Answers may vary. Disturbs nature, removes their habitats permanently, increases flooding.	
139	What can be done to lessen the negative impact of road building?	Answers may vary. Replace the habitats that were removed, make sure that water can drain well	
140	What do you think happens to the land areas that can no longer support crops?	Answers may vary. Land area may be abandoned and wasted.	
140	What affect do you think nutrient depletion has on the various trophic levels in the ecosystem's food web?	Answers may vary. Since it will affect producers (plants) the rest of the food chain will be affected.	
140	What other benefits might these cover crops offer?	Answers may vary. Slows erosion and keeps the soil fertile and rich.	<a href="https://www.sare.org/resources/cover-crops/#:~:text=A%20cover%20crop%20is%20a,other%20benefits%20to%20your%20farm.">https://www.sare.org/resources/cover-crops/#:~:text=A%20cover%20crop%20is%20a,other%20benefits%20to%20your%20farm.</a>
141	How will denser plant growth help the land and the cattle?	Answers may vary. It will help the land by decreasing the existence of dry, barren soil and therefore decrease erosion. It will help the cattle by providing more food.	
141	What other practices can you think of that would help keep farmland profitable?	Answers may vary. By using renewable and clean energy sources like solar panels and wind mills.	<a href="https://www.fb.org/land/fsf">https://www.fb.org/land/fsf</a>
141	Why are these resources so important?	Answers may vary. Humans used them for their transportation and homes.	
141	What are some ways you used these resources today?	Answers may vary.	
141	Why are these resources limited?	It takes a long time for them to be replaced if they can be replaced.	
141	How does acquiring, refining, and using these resources lead to pollution?	The processes give off chemicals and waste that is harmful for the environment.	
141	How can pollution affect you?	Answers may vary. It may make you sick.	
141	How might you be affected by these predicted changes?	Answers may vary. It may change weather patterns, climates and natural disasters.	

## 8th Grade

### Life Science

#### Ch. 4 Lesson 3

Page	Question	Answer(s)	Links/Sources
141	Are there places on Earth that will be less affected by global warming than others? Explain.	Answers may vary. It is a worldwide crisis.	
141	What can you do to help reduce global warming?	Answers may vary. Reduce pollution, human footprint.	
141	What can state and local governments do?	Answers may vary. Put in place regulations and laws to protect the environment and increase public education about it.	
143	What atmospheric gases do organisms use?	Carbon dioxide, oxygen and nitrogen.	
143	Can they get these materials anywhere else?	No.	
143	How does air pollution affect humans and animals?	Answers may vary. Can affect their respiratory tract, cause respiratory illnesses.	
143	How would these changes in fish populations affect the aquatic ecosystem?	It would affect the population of the fish species. This would disturb food chains and food webs.	
143	How do you think the increased acidity affects plant populations?	Since it can damage leaves, it will affect plant populations eventually.	
143	How might a change in a nutrient cycle affect a third-level consumer?	The third-level consumer may not be able to get the nutrients it needs. This will affect its health and life expectancy.	
143	How does a decrease in species diversity make an ecosystem more susceptible to ecological damage?	There is a decreased amount of food options for organism, extinction of a species can more easily happen. This could alter the ecosystem permanently.	
144	How do organisms use water to survive?	To keep their cells functioning. Animals and plants depend on water for body processes.	

## 8th Grade

### Life Science

#### Ch. 4 Lesson 3

Page	Question	Answer(s)	Links/Sources
144	What are some adaptations of plants and animals for getting and keeping water?	Answers may vary: Modifications in leaves and root systems. Modifications in time of day when animal is active to reduce water loss through sweating.	
144	What are some sources of water?	Answers may vary: Rivers, streams, lakes, ponds and wells.	
144	What processes of the water cycle help make sure that water is recycled?	Answers may vary: Evaporation, run off, ground water, precipitation.	
144	How do you use water for recreational activities?	Answers may vary: Swimming pools, playing with the water hose, water balloons.	
144	How would your life be different if water were in short supply?	Answers may vary: It would limit pool usage and playing with water balloons. Showers and washing would be limited.	
144	How might this process pollute the water?	Releases chemicals that can get in the water.	
144	What other sources of water pollution can you identify?	Answers may vary: Dumping oil or other household chemicals down the drain.	
144	How can you help limit water pollution?	Answer may vary. Be mindful of what is put in the drains and chemicals in lawns.	
144	How would this affect water habitat food webs?	If the oxygen is decreased, the animals will start to die.	
144	Could the effects spread to land food webs?	Yes, since land food webs include animal habitat food webs.	