

8th Grade

Life Science Ch. 4 Lesson 4

Page	Question	Answer(s)	Links/Sources
147	What types of changes can an ecosystem adjust to or recover from naturally?	Wind, rain, predation and earthquakes.	https://sciencing.com/natural-changes-can-affect-ecosystem-6777.html
147	What organisms would be able to survive a fire?	(Answers in Teacher edition, "Science background" section).	
147	What strategies might these organisms use to survive?	(Answers in Teacher edition, "Science background" section).	
147	Explain why humans should not intervene to help more plants and animals survive natural	Answers may vary. Natural disasters may help reduce population sizes.	
148	How do you think the salinity of the water changes as you move down the Bay?	As you get closer to the ocean, it gets saltier.	
148	How do organisms use these 2 gases?	Dissolved oxygen- Fish use it survival Carbon dioxide- Plants use it for photosynthesis, make their own food.	
148	What are some conditions that the species living in the Bay would need to survive?	Answers may vary. Water quality, temperature and food supply.	
148	Why would low oxygen levels cause the death of organisms?	They aren't able to get enough oxygen to help their cells survive.	
148	What might be the sources of pollutants that contaminate the waters of the Bay?	(Answers in Teacher edition, "Science background" section).	
148	How would blocked sunlight affect organisms that live the Bay's waters?	This will decrease photosynthesis in the plants and the plants may eventually die.	
148	How might the lower populations of grasses affect the Bay food web?	Since grasses are producers it will affect every food chain and web that has consumers that eat the grasses. Also animals that use the grasses to camouflage or hide will be exposed to predators.	
148	In what ways would this affect humans?	Human food supply would be limited.	
149	What must people do to save the Bay from continued decline?	Answers may vary: Decrease pollution, overfishing and over harvesting crabs and shellfish.	
151	You know that pollution contributed to this reduction in population size, but how?	Pollution decreased the amount of oxygen.	Page 151 2nd paragraph.

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151	What has caused the cause-and-effect chain of events that led from the water pollution to the decrease in dissolved oxygen?	Low period of low oxygen killed many oysters.	Page 151 2nd paragraph.
151	What are other limiting factors in the Bay ecosystem?	Invasive species, fishing and over harvesting.	https://www.chesapeakebay.net/issues/oysters
151	Which of these factors also affect land ecosystems?	All affect the land ecosystem because they are part of various food chains and food webs. The one that most directly impacts the land ecosystems would be invasive species. Plants that have taken over the natural habitat of native species.	
151	What changes in limiting factors would be needed to restore the Chesapeake Bay to its	They would need to be decreased or removed.	
152	What changes might occur in an ecosystem as a result of a hurricane?	Trees uprooted or broken, floods and animals may die.	
152	What other natural events might cause sudden	Earthquakes, floods, fires.	
152	What kinds of events might create areas that do not have soil or living things?	Volcanic eruptions, newly formed sand dunes or glacier movement.	https://www.britannica.com/science/ecological-succession
153	What characteristics must a pioneer species have to survive in the harsh conditions of a pioneer community?	They can withstand harsh environments, germinate in a variety of environments, reach reproductive maturity very quickly, produce large number of seeds and have high dispersal rates, and can survive prolonged periods of dormancy.	https://eco-intelligent.com/2016/11/22/ecological-succession-who-starts-it-pioneer-species/
153	What changes would have to happen in the area for plants and animals to survive?	Fertile soil, enough water supply and nutrients.	
153	Where does the soil come from that the grass needs to grow?	When mosses and lichens die, they form parts of soil. Slowly, enough soil forms for small shrubs to grow. The roots of the shrubs break up more rock and more soil forms.	https://www.wfisd.net/cms/lib/TX01000557/Centrality/ModuleInstance/11492/Succession%20notes%20for%20journal.pdf

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153	What events might disturb an ecosystem enough so that secondary succession takes place?	A devastating flood, wildfire, landslide, lava flow, or human activity (e.g., farming or road or building construction).	https://www.britannica.com/science/secondary-succession
153	Where in the secondary succession process do you think animals first inhabit the area? Why?	When enough plants are able to sustain them. So they can have enough food to survive and their young.	
153	Why do you think that no low-growing grasses appear in the climax community?	Low growing grasses grow best where there isn't much soil.	
153	What do you think will happen to the climax community over time?	Over time the climax community will remain unchanged until destroyed by a an event.	https://www.dictionary.com/browse/climax-community#:~:text=A%20climax%20community%20is%20the,See%20more%20at%20succession.
153	Which do you think results in a climax community more quickly-primary succession or secondary succession?	Secondary succession because the area had been previously occupied and it is easier to recolonize than to start from newly formed rock.	https://www.khanacademy.org/science/biology/ecology/community-structure-and-diversity/a/ecological-succession#:~:text=their%20starting%20points%3A-.In%20primary%20succession%2C%20newly%20exposed%20or%20newly%20formed%20rock%20is,re%2Dcolonized%20following%20the%20disturbance.