Ecology

Name _____

Go to howaboutscience.com, click on "Lessons and Units", "Life Science" and choose "Ecology." Answer the questions as you explore the videos and links. Use the links under "For More Information" to help you answer and understand the questions.

Watch "Understanding Ecosystems for Kids" and answer the questions below.

1. What do all living things have in common?

2. What is an ecosystem?

Ecosystems include both living and nonliving things. We call these biotic factors and abiotic factors.

3. What are some examples of biotic factors (living parts) found in ecosystems?

4. What are some examples of abiotic factors (nonliving parts) found in an ecosystem.

5. Why won't you find a coral reef in a desert?

6. What are the three main types of organisms (living things) found in an ecosystem?

7. Give an example of a producer. They make their own food. How do they do it?

8. Give an example of a consumer. What are the three types of consumers? List them below.

9. What are herbivores? Give an example. Where do they get their energy?

10. What are carnivores? Give an example. Where do they get their energy?

11. What are omnivores? Give an example. Where do their get their energy?

12. What are some examples of decomposers? What do they eat?

13. Why are decomposers important to plants?

14. What is a community? Give an example.

15. What is a population? Give an example.

16. Why is it important for an ecosystem to be balanced?

17. How can ecosystems become unbalanced? Give some examples.

18. Why is it important to protect ecosystems?

19. How can we have a positive impact on ecosystems?

Watch "The Food Chain" and "The Food Web" and answer the questions.

1. What two things do all living things need to survive?

2. What is a good way to illustrate the flow of matter and energy?

3. Why is the sun so important? ("we would die without it" is not a good answer)

4. Using the Florida Everglades as an example, fill in the table below.

Word or phrase	Description	Example
Producer		
Primary consumer		
Secondary Consumer		
Tertiary consumer		
Apex Predator		

5. Why are there no more than four or five links in a food chain?

6. What is the energy in a food chain used for?

7. What happens to matter in a food chain?

8. What is the 10% rule?

9. What would happen if there were too many links in a food chain?

10. What is a food web and how does it compare to a food chain?

11. Why might it be an advantage to be an omnivore instead of a herbivore or carnivore?

12. What would happen if we removed something from a food web?

Watch "Energy Transfer" and answer the question.

1. What is the difference between an autotroph and a heterotroph?

2. What can make organic molecules from chemicals in undersea vents and can also be called a producer? (sugars are examples of organic molecules that can be used for energy)

3. What are trophic levels? Give some examples.

4. What is transferred from level to level in a food chain?

5. What is at the bottom of the pyramid? Why?

6. What does a food chain show?

7. Why is a food chain said to be oversimplified?

8. How much energy is transferred from one level to the next?

9. What happens to the energy as you go up the pyramid?

10. Why are there so few organisms at the top of the energy pyramid?

Watch "Fabulous Wetlands" and answer the questions.

1. What is a wetland? (is it a habitat? An ecosystem?) Explain. Where are they found?

2. Why are wetlands important? (name at least three)

3. What are some examples of wetlands?

4. Illustrate a wetland (draw and label one) in the space below.

Watch "Prairie Dogs: Keystone species" and answer the questions.

1. What is a "keystone species?"

2. Why is the prairie dog considered to be a keystone species?

3. Search online and find other examples of keystone species. Fill out the table below.

Keystone Species	Why is this a keystone species?