

Expedition Days Online

WEB OF LIFE Study Guide

Student name:_____

Computer game access code:_____



EXPEDITION
DAYS



MCDOWELL
SONORAN
CONSERVANCY

Web of Life Knowledge Check

Instructions

1. Answer the following questions. You may use a list, incomplete, or complete sentences.
2. Listen to the Discussion Corner in the presentation.
3. Revise your answer to include any new ideas. Include examples from the slides and video.

Questions

- What is an ecosystem?

- What are the parts of an ecosystem?

- What is one example of an ecosystem?

Parts of an Ecosystem

Goals: Decide if each picture shows a living or nonliving thing. Explore how each part of the Sonoran Desert ecosystem is important.

1. Open the game by clicking on the link on the presentation slide.
2. Enter your access code (provided by your teacher).
3. Click to play Level 1.
4. Follow the instructions and play through Level 1 at least one time (you can play through more than one time, if you want).
5. Based on what you learned in Level 1, answer the following questions (you can have the game open while you answer these):

- What are the two main parts of an ecosystem?

- What is one living thing in the Sonoran Desert that you thought was really cool? Why is that living thing so cool?

- What is one non-living thing in the Sonoran Desert that you thought was really cool? Why is that non-living thing so cool?

Relationships in the Desert

Goals: Use your detective skills to determine how different species are connected in the Sonoran Desert ecosystem.

1. Open the game by clicking on the link on the presentation slide.
2. Enter your access code (provided by your teacher).
3. Click to play Level 2.
4. Follow the instructions and play through Level 2 at least two times (you can play through more than two times, if you want).
5. Based on what you learned in Level 2, answer the following questions (you can have the game open while you answer these):

- Every species in an ecosystem important because_____(fill in the blank)

- True or false? All species have at least one connection to another species in the ecosystem. Justify your answer and give one example.



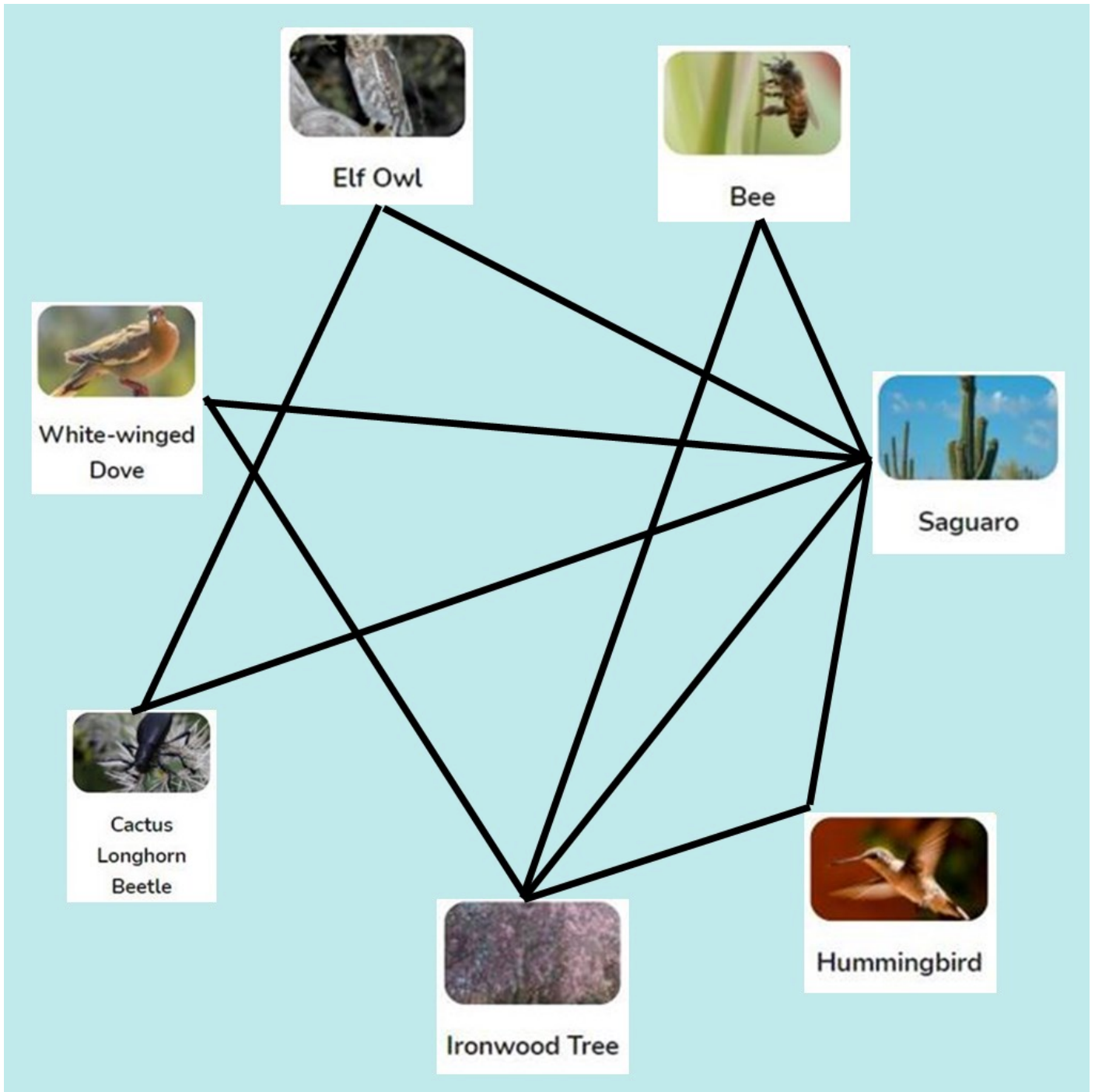
- True or false? Some species have many connections in an ecosystem. Justify your answer and give one example.

- Think about what a spider web looks like. What are some similarities between a spider web and the ecosystem web you just created?

Disappearing Species

Goals: Determine what happens to the species in an ecosystem when one species disappears.

1. Study the ecosystem web, which is similar to one you created before. Let's see what happens to the web when one species disappears. Use this ecosystem web to help answer the questions on the next page.



Go to the next page

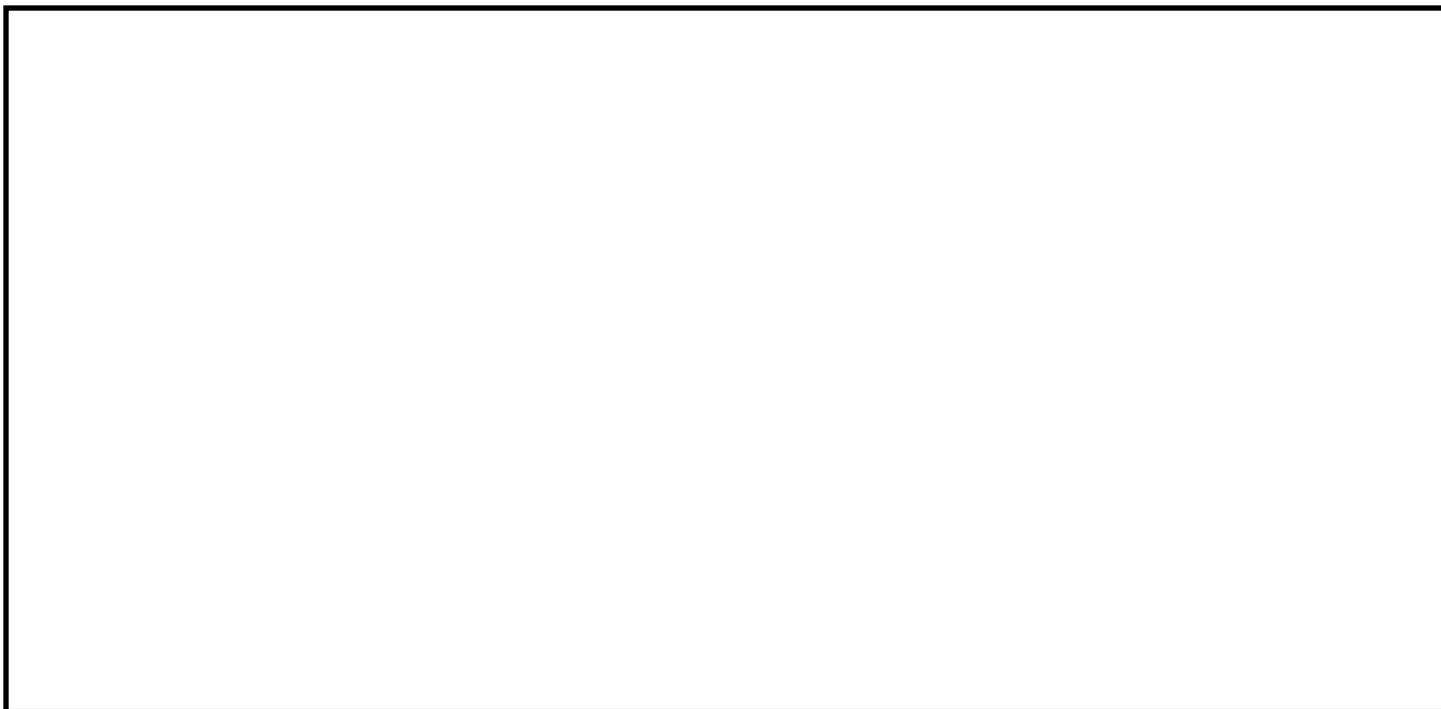


1. Imagine all the bees have disappeared from the Sonoran Desert ecosystem. We are seeing bee populations decreasing in real life, which is a big concern for everyone. **On the ecosystem web, cross out the bee.**
2. Look at the ecosystem web. What other species is the bee connected to? Hint: What species are the lines from the bee connected to?

3. Now that bees have disappeared, any species connected to the bee are also gone. **Cross out the pictures of the species you wrote in the box above. Cross out the connecting lines between the bee and these species.**
4. We are starting to see more species die because the bee disappeared from the ecosystem. Look at the ecosystem web. What species are connected to the ones you crossed out last? Hint: What species did you write down for number 2?

5. **Cross out the pictures of the species you just wrote in the box above. Cross out the connecting lines between species.**

5. The connections or links between species in an ecosystem create a web, similar to a spider's web. What happens to an entire ecosystem web when one set of connections disappears? (Think about what happens to an entire spider web when a few strands get broken.)



Designing Your Web

Goals: Test your understanding of the relationships between species in an ecosystem and create your own ecosystem web.

1. Open the game by clicking on the link on the presentation slide.
2. Enter your access code (provided by your teacher).
3. Click to play Level 3.
4. Use what you learned in Levels 1 and 2 to design your own ecosystem web. Include all the connections between the species.
5. If you want, you can print out your web with help from an adult and glue it below.

Web of Life Knowledge Check

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Questions

- What do all living things need to survive?

- What can cause changes in a species' food, water, or shelter?

- Why are species disappearing so quickly right now?

- What can we do to protect species and ecosystems from disappearing?

Putting it all Together

Goals: Using what you have learned in Web of Life and other lessons, design a new way humans can minimize our impact on the environment.

Instructions

1. Think about the following environmental events and how they affect the health of an ecosystem: wildfires, drought, invasive species, city pollution, and climate change.
2. Choose one of these environmental events to focus on.
3. Answer the following questions about your chosen environmental event:

- What event did you choose?

- How does this environmental event affect different parts of the ecosystem? Hint: What does this event do to the desert? How are plants and animals (including humans) affected?

4. Draw this ecosystem web in the space on the next page. Include the relationships between your environmental event and all the parts of this ecosystem.
5. Where do you fit into this ecosystem web? Draw yourself into the web.

Go to the next page



6. How are you affected by the environmental event? Add in the relationships between yourself and the parts of the ecosystem that are affected by this environmental event.
7. How do you (and other humans) cause or make worse the environmental event? Write these human actions to the side of your drawing.
8. Design or describe something that supports the health of this web and makes it less affected by this environmental event. Choose 1 of the following questions to answer:
 - How can we prevent this environmental event from happening?
 - or**
 - What can we do to help the ecosystem get healthy again if this environmental event does happen?

Additional drawing/writing space