Expedition Days Online

WEB OF LIFE

Study Guide

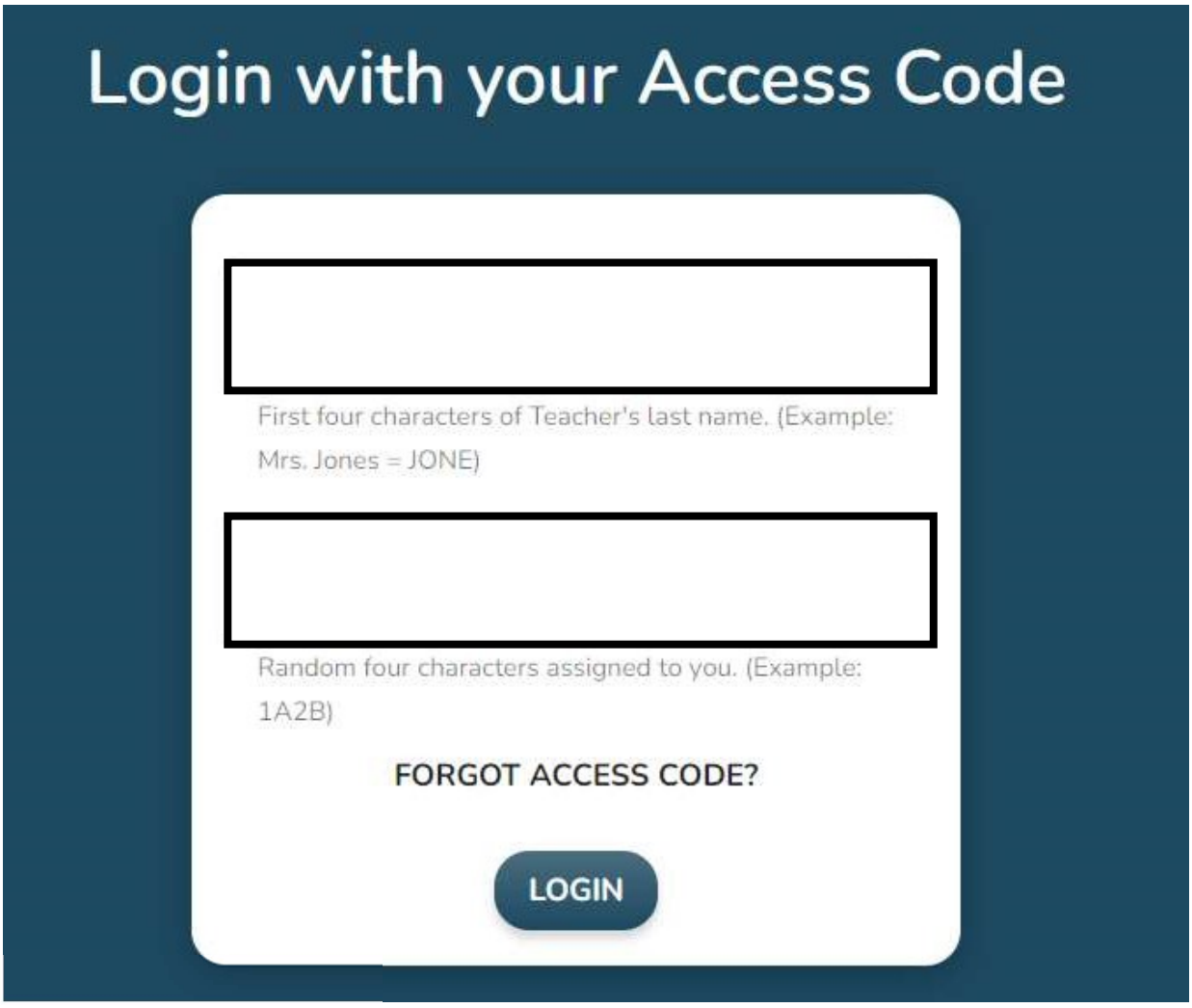
Student name:_____

EXPEDITION DAYS

MCDOWELL SONORAN CONSERVANCY

My Login Information

Please write your login information in the rectangles below to reference throughout this module. You should have received this from your teacher or from the McDowell Sonoran Conservancy team via your email you registered with.



Web of Life Knowledge Check

Instructions

- Answer the following questions. You may use a list, incomplete, or complete sentences. Include examples from the slides and videos.
- Then listen to the Discussion Corner in the presentation to check your answers and revise your answers to include any new ideas.

Questions

1. What is an ecosystem?

2. What are the parts of an ecosystem?

3. 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.

Instructions

- Open the game by clicking on the link on the presentation slide.
- Enter your access code.
- Click to play Level 1.
- Follow the instructions and play through Level 1 at least one time (you can play through more than one time, if you want). Then fill out the following once you have completed the level (it will say congratulations you have unlocked another level at the end).

Questions

1. What two parts of an ecosystem did the game list?

2. What living and nonliving thing(s) did you think were interesting? List at least one from each category and explain why it is unique or how it helps its ecosystem.

Relationships in the Desert

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

Instructions

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

1. Why is every species in an ecosystem important and not just a few key ones?

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

Continue to the next page

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

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

5. What were some interesting connections you discovered?

Disappearing Species

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

Instructions

- Draw your ecosystem web below that you created in level 2. You can draw out the plants/animals or just write the names (your progress will be saved if you logged out, or you can complete the level again).
- Cross out the smallest animal in your web to indicate its disappearance from the ecosystem. What do you think happens to the rest of the species involved in your web? Add arrows next to each species to indicate if you think their population will increase or decrease.

Continue to the next page

In the space below, explain why you think certain populations increased or decreased.

Designing Your Web

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

Instructions

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

Web of Life Knowledge Check

Instructions

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

Questions

1. What do all living things need to survive?

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

3. Why are species disappearing so quickly right now?

4. 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.

Part 1

Instructions

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

1. What event did you choose?

2. 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?

Continue to the next page

Part 2

Instructions

- 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.
- Where do you fit into this ecosystem web? Draw yourself into the web.
- 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.
- How do you (and other humans) cause or make worse the environmental event? Write these human actions to the side of your drawing.
- 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:
    1. How can we prevent this environmental event from happening?
    2. What can we do to help the ecosystem get healthy again if this environmental event does happen?

Additional drawing/writing space