

Ecosystem Web of Life Activity Worksheet

Learning Objectives

- Understand the basic components of an ecosystem
- Identify relationships between different organisms
- Recognize the importance of biodiversity
- Develop observation and analytical skills

Activity 1: My First Ecosystem Web

Study the organisms below and draw lines to connect those that have a relationship. Then explain how they help each other.

Sun

Plant

Bee

Bird

Explain the relationships:

1. Sun helps plant by: _____
2. Plant helps bee by: _____
3. Bee helps plant by: _____
4. Bird helps plant by: _____

Activity 2: What Does It Need?

Observe the plant provided by your teacher carefully. Complete the following analysis:

Survival Needs

Helpers

Dependents

1. _____
2. _____
3. _____
4. _____

1. _____
2. _____
3. _____
4. _____

1. _____
2. _____
3. _____
4. _____

Activity 3: Soil Explorer Investigation

Using your magnifying glass, carefully examine the soil sample provided. Record your observations below:

| | | |
|-----------|-----------|-----------|
| Drawing 1 | Drawing 2 | Drawing 3 |
|-----------|-----------|-----------|

Soil Investigation Results:

1. Number of different creatures found: _____
2. Types of creatures identified:
 - _____
 - _____
 - _____
3. How do these creatures help plants grow? Explain below:

Activity 4: Web Building Challenge

Draw arrows between the organisms to show their relationships. Use different colored arrows for different types of relationships (e.g., red for food, blue for shelter, green for pollination).



Reflection Questions:

1. Which organism did you circle as most important? _____

2. Explain why you chose this organism:

3. List three important relationships you showed:

- _____
- _____
- _____

Activity 5: Ecosystem Disruption Scenario

Read each scenario and analyze the potential impacts on the ecosystem. Consider both immediate and long-term effects.

Scenario 1: The Missing Bees

Imagine all the bees in your local area disappeared. Consider the following questions:

Immediate Effects:

1. Effect on flowers: _____
2. Effect on fruit trees: _____
3. Effect on birds: _____

Long-term Effects:

1. Effect on food supply: _____
2. Effect on other insects: _____
3. Effect on ecosystem balance: _____

Propose three solutions to prevent this scenario:

1. _____
2. _____
3. _____

Activity 6: Food Chain Detective

Create a detailed food chain using the organisms provided. Then answer the analysis questions.

Producer

→

Primary Consumer

→

Secondary Consumer

→

Tertiary Consumer

Available Organisms: Grass, Mouse, Snake, Hawk, Rabbit, Fox, Grasshopper, Eagle

Answer the following:

1. Which organism is the producer and why? _____
2. What would happen if we removed the primary consumer?
3. How does energy flow through this chain?

Activity 7: Habitat Investigation Project

Choose a small area in your school yard or local park to study. Complete the following habitat survey.

| Habitat Survey Form | |
|---------------------|--------------------|
| Date: _____ | Time: _____ |
| Weather: _____ | Temperature: _____ |

Plants Observed:

1. _____
2. _____
3. _____
4. _____

Animals Observed:

1. _____
2. _____
3. _____
4. _____

Evidence of Life:

1. _____
2. _____
3. _____
4. _____

Activity 8: Ecosystem Services Investigation

Identify and analyze the different services provided by your local ecosystem.

Supporting Services

- Soil Formation: _____
- Nutrient Cycling: _____
- Primary Production: _____

Regulating Services

- Climate Control: _____
- Water Filtration: _____
- Disease Control: _____

Provisioning Services

- Food Sources: _____
- Fresh Water: _____
- Raw Materials: _____

Activity 9: Ecosystem Health Assessment

Complete this assessment to determine the health of your studied ecosystem.

| Health Indicator | Rating (1-5) | Evidence |
|------------------|--------------|----------|
| Biodiversity | _____ | _____ |
| Water Quality | _____ | _____ |
| Soil Health | _____ | _____ |
| Plant Health | _____ | _____ |
| Animal Activity | _____ | _____ |

Overall Health Score: _____/25

Recommendations for Improvement:

1. _____
2. _____
3. _____

Final Reflection and Conclusions

1. What was the most surprising thing you learned about ecosystems?
2. How are humans part of the ecosystem you studied?
3. What actions can you take to protect your local ecosystem?
4. How has this study changed your view of nature?

Great job completing your ecosystem exploration!

Remember to share your findings with your classmates tomorrow.

Final Thoughts:

What was the most interesting thing you learned today?

How will you help protect ecosystems in your daily life?