### **Interactive Ecosystems Final Project Rubric**

Point Value	0	1	2	3	4
Claim	Claim does not relate to the problem being solved	Claim somewhat relates to problem being solved	Claim relates to the problem being solved but is not expressed clearly	Claim is clear and relates directly to the problem being solved	Students explain the process by which they decided on their claim
Evidence	No evidence or evidence doesn't support the claim	1 piece of evidence that supports the claim	2 pieces of evidence that mostly relate directly to the claim	2 pieces of evidence that clearly support the claim	3 or more pieces of evidence that clearly support claim
Solution to the problem	Solution not practical or missing completely	Solution not presented clearly, not practical or not supported with evidence	Solution is practical, presented clearly and is supported with 1 piece of evidence	Solution is practical, presented clearly, and is supported with 2 pieces of evidence	Solution is practical, presented clearly, and is supported with 3 or more pieces of evidence
Explanation of Ecosystem Web	No Explanation	Explanation is unclear and/or inaccurate	Most connections in the web are accurately explained	Accurate explanation of all connections in the web	Accurate explanation includes description of relationships and identification of abiotic/biotic factors, producers/ consumers
Team Ecosystem Web	Web missing or has little relation to the problem being solved and claim	Few connections, relationships, abiotic or biotic factors shown and/or does not support claim	Some connections, relationships, abiotic or biotic factors missing and/or does not clearly support claim	All needed connections and relationships shown and support claim with abiotic/biotic factors and producers/con- smers labeled. Key included.	Additional and accurate abiotic or biotic factors included to support the claim
Technology and art supplies usage	No effort to be involved in art or technology usage	Technology and art supplies are used but not always appropriately	Most technology and art supplies are used appropriately	All technology and art supplies are used appropriately to achieve the stated goal	Technology and art is used beyond the scope of the project to enhance the stated goals
Collaboration	Student did not successfully participate in team discussions, or missed significant class time that hindered team success	Students contribution to team communication and team task was minimal	Student had some difficulty with the communication and delegation of tasks for team success	Student successfully communicated with teams throughout the entire project and student met all responsibilities of their specific roles	Student was able to assist other teams in addition to collaboration within their own team

## Interactive Ecosystems Presentation Requirements

Below is a suggested format for your presentation before showing your Scratch, MakeyMakey, and finished Watercolor Web. Be creative in your presentation with images, colors, and additional material to support your claim!

Find a presentation template in Google Classroom

#### Slide #1 - Title Slide

#### What is the name of your project? Who is in your team?

#### Slide #2 - Problem

#### What's the problem??

• Explain the project, what roles you each played, and explain what problem you were solving.

#### <u>Slide #3 - Claim</u>

#### What is your team Claim??

- Explain what your team claim is. What you thought the cause of the problem was.
- Be detailed. Saying "the deer did it" is not an acceptable claim!

#### <u>Slide #4 - Evidence</u>

#### First piece of Evidence to support your claim.

- This is where you put your graph(s) from EcoMUVE
- Make sure you only graph organisms that support the claim you have made.

#### Slide #5 - Evidence

# Second piece of evidence to support your claim. Import a picture of your completed watercolor web on this slide.

- This is where you will give an explanation of your ecosystem watercolor web.
- What will you show with the Scratch animation? Include your **claim** AND your **solution**.

#### <u>Slide #6</u>

#### Link to you MakeyMakey/Scratch Interactive Ecosystem Food Web

• This is where you use your Scratch project, MakeyMakey, and your Watercolor Web to show how your ecosystem web represents the relationship between organisms, your claim, and your solution.

### **Watercolor Food Web Requirements**

- 1. Glue the organisms drawn by your team on your forest background.
  - Collaborate with team members to make sure location of the organism is accurate
  - Spread them out around the painting with enough room to draw lines between them
  - Think about which organism have relationships with others
  - Use a glue stick to glue them in place
- 2. Create a key, either directly on your forest background or on a small white piece of paper, that includes the following:
  - **Color lines** to represent the types of relationships between organisms. Choose a different color to represent each type of relationship:
    - **O** predation
    - O mutualism
    - O parasitism
    - ${\sf O}$  competition
  - Explanation of any abbreviations for terms such as abiotic, biotic, producer, consumer.
    If needed, glue your key onto your watercolor forest background.
- 3. **Draw** lines with arrows between organisms to show connections between those organisms. Remember, arrows show the direction of the flow of energy. Be sure to use your key.
- 4. If needed, glue your key onto your forest background using a glue stick.

# **Key Terms**

Abiotic - nonliving and never once living.

**Biotic -** living things, once living things, or made by living things.

**Competition** - two organisms competing for the same resources.

**Consumer -** an organism that eats another organism.

Mutualism - a relationship where both organisms benefit.

**Parasitism -** a relationship where one organism benefits and the other is harmed.

**Predation -** one organisms hunts and eats another.

**Producer -** an organism that makes its own food through photosynthesis.