

**Grade Level: 4th****Title:** The Circle of Life**Georgia Standards:**

S4L1. Students will describe the roles of organisms and the flow of energy within an ecosystem.

- a. Identify the roles of producers, consumers, and decomposers in a community.
- b. Demonstrate the flow of energy through a food web/food chain beginning with sunlight and including producers, consumers, and decomposers.
- c. Predict how changes in the environment would affect a community (ecosystem) of organisms.
- d. Predict effects on a population if some of the plants or animals in the community are scarce or if there are too many.

**Materials:**

- Paper Plates
- Hole Punch
- Yarn/ Twine
- Crayons

Before the lesson is taught, one may need to take the time to prepare the materials. In preparation, one will need to research an appropriate example of a food web, which will allow engagement from all students.

**Safety:**

Construction of a food web is relatively safe for all students on a fourth grade learning level. Due to the potential interactivity of the food web, a large area, such as the playground or courtyard is recommended.

## **Procedure:**

### **Prior to Lesson:**

1. Research a proper food web that allows each student to become engaged, by representing an example of one of the key standards.
2. Select the appropriate features of the food web, and assign them to a paper plate.
3. Each feature was drawn, colored, and titled on each paper plate, to be used as visual aids.
4. Hole-punch each paper plate with the appropriate number of holes that corresponds to your food web, which will allow the web to be constructed.
5. Tie either yarn or twine to each of the holes, on both top and bottom of each paper plates. This will allow the students to tie together the connecting links of the food web.

### **Lesson:**

1. From your research, choose a lesson that will explain all of the standards used, giving the students prior knowledge, that will allow them to be able to construct the web.
2. Once the standards has been explained to the students, randomly assign each student a paper plate representing each component of the circle of life.
3. Using your food web as a reference, guide the students into their appropriate roles. The sun should be the beginning of the web, followed by the producers, consumers and decomposers.
4. Allow each the students to tie their strings together, connecting the links of the web. Try to allow the students to guess where they fit into the web. If the students are wrong, untie the strings and allow them another try.
5. The food web will grow quite large and students will become tangled into the web. Do not be discouraged, this will demonstrate how each feature of the food web is intertwined.
6. By the end of the lesson, using all of the provided paper plates and yarn/ twine, each student should be linked to their appropriate chains

### **Post-Lesson**

- To be used as an example of the circle of life, the food web can now be displayed in the classroom for future reference.

**Notes/Tips:**

Do not get discouraged when constructing the lesson. It can get chaotic and the students may get tangled in the yarn if instructions are not followed. Having control of the students and project is critical to the overall success of the project. Part of the fun of this project is watching the students have fun, however if the students become distracted, make the food web smaller and assign some students as yarn tiers so that the web isn't as chaotic.