



GirlsGotSTEAM One-Day Workshop: Spinning a Food Web

Program:	Spinning A Food Web
Age Range:	6-10
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Description:	What's the difference between a food web and a spider web? Do you know? If not, don't worry! Come to our workshop and learn about the holes and animals in food webs.

NOTE TO INSTRUCTOR: This lesson plan is an OUTLINE - use it as you will to execute your one day workshop. Feel free to add and remove material as needed. Attached is a PowerPoint and a packet (SciNotebook) for your student to complete. The SciNotebook includes material that should be taught and explained throughout the day.

The PowerPoint will include pictures, additional information, and instructions. It **SHOULD NOT** be the primary resource to run the workshop. Please refer to the lesson plans for detailed instructions. If you have any questions, comments, or concerns about any information in this workshop, please email girlsgotsteamorl@gmail.com.

Time	Objective	Component
Block 1: Introduction	Students should be introduced to the concepts of a food chain and food web.	Activity 1: Introduction Activity 2: Food Chain
Block 2: Plan and Build	Students should use their skills to create, assemble, and learn about the food chain.	Activity 1: Yarn Activity Activity 2: Plan a Model Activity 3: Design a Model
Block 3: Reflection	Students should end by reflecting on the food web created in the previous step.	Activity 1: Discussion Activity 2: Review Activity 3: SciNotebook

Materials

NOTE TO INSTRUCTOR: This is a DESIGN project. The materials listed below are suggestions. Once again, feel free to remove or add materials as needed.

Colored Pencils or Markers • Playdough • Yarn or Thread • Scissors • Construction Paper



Block 1: Introduction

Activity 1: Introduction

- Before starting, the students should be familiar with the parts of a food chain. They need to understand that a food web is a compilation of multiple food chains in the ecosystem. In an ecosystem there are producers, primary consumers, secondary consumers, tertiary consumers, apex predators, and decomposers. Students should know the characteristics of each level.
- Educators should emphasize that the sun is the start of any food chain. After that, the energy is being transferred from one level to the next.
- Students should also be introduced/review the following words
 - **carnivore** – an animal that eats only animals
 - **community** – all the plants and animals that live in one place, and that interact and depend on one another.
 - **energy** – the capacity for change: all living things need energy from food to live and grow.
 - **food chain** – transfer of energy in sequence, for example, from green plants, to animals that eat plants, to animals that eat other animals.
 - **food web** – a network of food chains that are interconnected within a particular community.
 - **herbivore** – an animal that eats only plants.
 - **interact** – to influence one another
 - **omnivore** – an animal that eats both plants and animals
- Refer to the PowerPoint for this information.

Activity 2: Food Chain

- On the PowerPoint, we will include organisms in food chains. Have students go over the pictures and discuss amongst each other how the food chain will look and how the energy will transfer.
- Go over these food chains carefully, and explain to the students the significance of each level of the food chain (refer to the PowerPoint). While doing this, be sure to direct the students to take notes to answer the guiding questions.

Block 2: Plan and Build

Activity 1: Yarn Activity

- Students will all be assigned a different animal/plant/decomposer. Instructors should print pictures of different animals/plants/decomposers from the same ecosystem and tape the students shirts. They can also create name tags that students can hand around their necks.
- Students will take a ball of yarn and pass it around the classroom and show the different connections. When passing the ball the students should try to answer the following question:
 - Who in the circle could I give my energy to (who will eat me)?
 - Who in the circle could give me energy (who can I eat)?
 - Once the ball reaches an apex predator and goes to a decomposer, the instructor should cut the yarn and start again with the sun. After 5 rounds, students will notice the different food chains that make up a food web.



Activity 2: Plan a Model

- Before students build, emphasize the importance of having a plan to base off of to follow in case one gets lost or confused. Be sure to present the 'plan' slide from the presentation while the students work.
- Students are to design and plan the building of this model in their SciNotebook. Supply them with colored pencils/markers in order to do this. Students should reflect on the class activity and implement all connections learned about. They should use different colors to show the different levels of a food chain. Assign students into multiple groups. Each group will focus on a different ecosystem (to avoid repetitiveness).
- Have the students pair/group up in order to plan. Assign the role of a scribe (writer), and have the other partner(s) help to come up with a step-by-step plan in the creation of the model. In order for the group to continue to the 'Build the Model!' stage, have them check their plan/design in with you (look for inaccuracies within the model, incomplete plan, etc.).

Activity 3: Design a Model

- It's now time for the most fun but messiest part of the activity! The food webs are ready to be built! In order to build the food webs, have the kids select varying colors of Play-Doh corresponding to their color key and design. Also have them collect a sharpie (for labeling the names of the plants/animals/decomposers), thread (to connect the different plants/animals/decomposers), and scissors (to potentially cut the Play-Doh and thread). Make sure the kids are mindful of their messes, and create their model over a sheet of paper, newspaper, or cardboard (some sort of protective surface).

Block 3: Reflect

Activity 1: Discussion

- The class should discuss the hardships and obstacles when building their food web. What was hard? What was easy? What can we do differently next time?
- **NOTE TO INSTRUCTOR:** Discussion should be fun, interactive, and detailed. Please ensure that students understand the objective of this workshop.

Activity 2: Review

- Instructors should reiterate the key learning points of this workshop by asking students questions:
 - What is something we learned today?
 - What does the food web show?
 - What are the different parts of a food web?

Activity 3: SciNotebook

- Since the workshop is coming to an end, please ensure that all the students' SciNotebooks are completed.

We hope your students will enjoy creating their own Food Web! Thank you so much for using GirlsGotSTEAM's resources for your workshop - our team would be beyond happy to provide you with more free and enjoyable lesson plans in the future! For any questions, comments or concerns, please email girlsgotsteamorl@gmail.com or DM us @girlsgotsteam on Instagram!