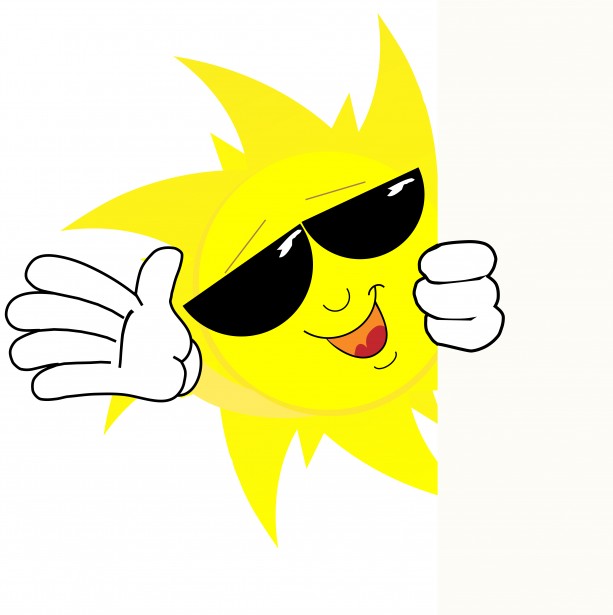
**Science in a Bag – Student Page**

**The Web of Life**

**Grade Level:** 5th Grade

**Standards:** **Standard 3 – Flow of Matter and Energy**

**GLE 0507.3.1:** Demonstrate how all living things rely on the process of photosynthesis to obtain energy.

**Checks for Understanding 0507.3.2:** Design a graphic organizer that illustrates the difference between plants and animals in the movement of food energy through an ecosystem.

**SPI 0507.3.2:** Compare how plants and animals obtain energy.

**Task Objective:** The student will understand how food energy is transferred within an ecosystem by combining foam links to form model chains that will interlock to create a food web. The student’s chains will model the sequence of who eats what or whom in an ecosystem. When an animal has multiple ways to obtain their energy to survive, the students will overlap their food chains creating a network of many food chains known as a food web.

**Materials Needed:** Ziploc bags, foam strips with Velcro fasteners, copy of the “food web energy flow” graphic organizer, flip book that defines the individual levels of a food chain, various pictures representing the different levels within a food chain, terms which identify each level within a chain, and pencils.

**Procedures:**

1. Remove all materials from your “Web of Life” box (review the flip book of ecosystem terms before you begin the activity if you need a refresher).
2. Begin by selecting any Ziploc bag of materials.
3. Remove a foam strip and connect it to form a link.
4. Continue removing strips and forming links, interlock each link as you go to form a chain (as seen on the outside of your box).
5. Beginning at either end of the chain, select and place the picture and matching term that identifies the first level of a food chain onto your link.
6. Move in order on your chain, attaching the correct picture and term for each level (if necessary, you may use the flip book of ecosystem terms to help you as you move from link to link).
7. Repeat steps 2-6 for the remaining two bags.
8. Form a food web by joining links from the three chains together anywhere a consumer might eat a member from another chain.
9. Upon completing your food web, individually complete the “food web energy flow” graphic organizer and place it in your learning logs.
10. Check your answers on the answer keys found in the lid of your box.

**Assessment:**

What differences do you notice in the roles of the plants and animals in your food web?

In your own words what are primary, secondary, and tertiary consumers? Include two examples of each.

Where can almost all living organisms on earth trace back their original source of energy (hint: not what they eat)?

What do you think would happen if one of the members in your food chain were to become extinct?

**Clean-Up:**

Disconnect all Velcro pieces and place them back into the Ziploc bags as they were when you began. Then place all materials back into the box and return it to the correct shelf.