Food Web Activities

Humans in the Food Web

1. Choose one ingredient in a food you ate today. It can be anything!
2. Trace your food item all the way back to its origin and connect it within a food web.
   a. One example: pepperoni on pizza. The pepperoni comes from a pig, which eats corn. Corn is a plant that gets its energy from the sun. There are probably also mice and insects that eat the corn, and maybe a hawk eats the mice. The pig, corn, sun, mice, insects and hawk, and the human eating the pepperoni pizza are connected in a food web, and we can see that humans are just one part of the web.
3. Draw a diagram of the food web around your chosen item of food, and see where you fit in.

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  sun
 /     |
/      |
sun     Pig/pepperoni
         /    |
         /     |
corn    human
         /     |
         /      |
mice     hawk
         /      |
insects
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Bioaccumulation Activity

1. Imagine a stream and the creatures that live in and around it. Near the stream, there is a large farm that uses chemical pesticides to kill insects that might eat the crops. When it rains, some of the pesticides wash into the stream.

2. Set out three cups. Each cup represents part of a food web in the stream. The first cup represents aquatic plants, the next cup is a fish, and the third cup is an otter.

3. Cut or tear up a piece of paper into 30 smaller pieces. The pieces of paper represent the pesticide runoff from a nearby farm.

4. Place 3 pieces of paper in your first cup. This represents the amount of pesticide runoff each aquatic plant absorbs from the water.

5. The fish swims through the water munching on plants. The fish eats 3 aquatic plants. Add three plants worth of paper pieces into the cup that represents the fish.
   a. How many pieces of paper are in your fish?

6. Next, a hungry river otter catches some fish as a snack. The otter needs 2 fish to feel full. Pour two fish worth of paper into your third cup.
   a. How many pieces of paper are in your otter? (Hint: that’s 6 aquatic plants worth of paper).

7. Think about: How does this bioaccumulation—the increasing amount of chemicals—affect the predator in this food web (your otter)? How would this impact the predator if the pieces of paper were pieces of plastic in real life? What are some solutions to reduce the impact of chemical or plastic bioaccumulation in the food chain?

Original photo [here](#)