

Mouthparts relay

First you discuss how insects are adapted to their niche in the environment and their mouths are adapted to the way they feed. (I use a sponge, party horn, syringe, and pliers to demonstrate sponging (house fly), siphoning (butterfly), piercing-sucking (mosquito or stink bug) and chewing (beetles, cockroaches, grasshoppers, yellow jackets, etc.) After some discussion about insects and what they eat (trophic levels, etc.) you can have groups of 4 or 5 participate in a mouthparts relay race (full instructions are in the ABC's of Entomology 4-H curriculum at the UF/ IFAS bookstore - Mouthparts Mayhem).

I give out cards with insect photos (grasshopper, house fly, stink bug, butterfly, blank for the team coach/leader). The team leader (if you have one) meets with the team to form a strategy and pass out mouth implements (soda straw for the butterfly, small sponge square for the fly, juice box straw for the stinkbug). Then the kids line up to run (one at a time) to a table with the food source (there are 4 runners per team).

The grasshoppers eat dry cereal from a plate (no hands, because grasshoppers can't use their feet to move their food. - You can discuss palps here - like silverware or our tongue). I like to use Honey nut Cheerios or Honeycomb cereal because of the insect link. Be careful not to give too much cereal because without anything to drink the kids often can't eat it all. The fly has two cups and a sponge. They have to sponge water from one cup into the other until the original cup is empty (if you can find plain sponges (no antibacterial treatment), you can have them drink something like apple juice from the sponge, but it gets sticky.) The butterfly uses the soda straw to drink some juice. I like to get the kind called nectar that comes in pear, guava, or peach flavors. The nectar is a nice touch and you can get small cans. I can't remember the brand name, but it is something like Jumex???. Lastly, the stinkbug gets a juice box or pouch to use the straw to pierce and suck out the contents. After each insect finishes feeding, they have to run back to their home base (hive) and tag the next insect. They go in turn until all four have fed and made it home safely. The team leader can have the fed insects sit and then cheer when they all are seated so you know which team has won. If you have time, the teams can even make up names for each other. You can also have predators, or disease that can take out insects going to or from a food source. These children (predators) would stand on the sidelines and toss a ball of yarn towards the insects. If the yarn crosses the insect, then it is caught in the web and is out of the game. There aren't any rules for this adaptation, you can be creative.