



# Bug Juice Challenge

**Materials:** Small containers of juice or water, straws, volunteer judges

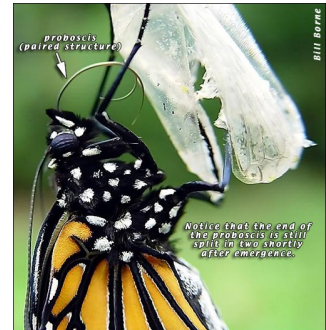
**Objectives:**

Students will be able to describe the structure of a proboscis and understand its use in insects for taking in nectar and other liquids.

**Background:**

Adult butterflies and moths have a special mouth part called a proboscis. The term is derived from Greek *pro* meaning "before" and *baskein* "meaning to feed". The proboscis is a tubular organ used for feeding on nectar sources and other liquids (water, sweat, etc.) When it is not being used, it is curled up out of the way. Larval butterflies and moths have chewing mouth parts rather than sucking ones since they eat plant material.

The picture at right shows the proboscis of a Monarch butterfly shortly after emerging from a chrysalis. After some time, the two parts will “zip” together to form a complete tube. The picture is from the Monarch Watch website at <http://www.monarchwatch.org/update/2002/proboscis.html>



**Challenge:**

- 1 – If you have enough juice for all the participants, divide them into small groups of 5-6 people and hold the competition in rounds. The winner from each round will compete in a final round to determine the overall winner.
- 2 – Instruct the students that they will insert the straw into the container when you say “Go!” and use it to slurp the juice as fast as possible. The judges will determine the winner as the first person to empty the juice or water container.
- 3 – Continue with the rounds to determine the participants in the final round.
- 4 –Award prizes to the top three “slurpers.”