

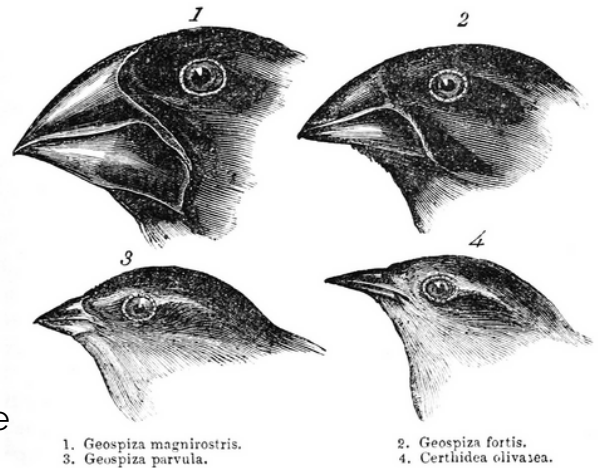
Darwin's Marshmallows

Charles Darwin wrote about his **theory of evolution** nearly 200 years ago.

In particular, he observed finches on islands in the Galapagos, and found that groups of finches had different shaped beaks.

He theorised that, depending on the shape of their beaks, the different finches had evolved to eat different types of food.

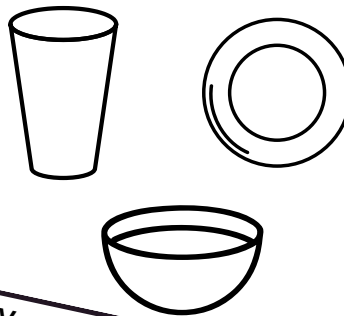
This activity illustrates how different tools are suited to getting certain food from different containers. Finding the best tool for the job is like having an adaptation that is suited to a habitat.



Illustrations of finch adaptations from Darwin's research in 1845

Equipment:

- a spoon or fork
- tweezers or chopsticks
- a bowl
- a plate
- a tall, narrow cup
- dry pasta
- mini marshmallows
- sugar-coated chocolate



Variation: use counters or beads instead of food

Method:

Put a mix of dry pasta, chocolate, and mini marshmallows (or other objects) into the **cup** and the **bowl**, and onto the **plate**. You can make the mix even in each habitat, or choose to have more marshmallows in one than the other.

Select your **adaptation tool** and the **food source** you need to survive, and **start competing!**

Try fighting over the **same habitat** with **different adaptations** to see who is better suited for survival in each one.

Once you've concluded which adaptation suits which habitat, try a **race against the clock!** See who can collect the most marshmallows using chopsticks in 30 seconds, and who would be the victorious finch in the **survival of the fittest**.

Things to think about

How hard is it to survive in an environment with the wrong adaptations?

If evolution is a slow process, what happens when the environment changes rapidly?

Can animals keep up and keep surviving in the face of massive changes like habitat eradication and climate change?