



SCIENCE LESSON WORKSHEET

NATURAL SELECTION

Natural Selection is the theory that organisms with favorable traits will survive and produce offspring. Over time, populations of organisms will end up with specific traits that help them survive.

VOCABULARY

- **Traits:** The characteristics that genes express. Like, hair color, eye color or height etc..
- **Heredity:** The passing of traits from parent to offspring.
- **Genes:** Are a part of DNA that controls the development of an individuals traits.
- **Genetic Variation:** Individuals with in a species have different genes.
- **Mutation:** A random alteration in an organisms DNA. This can sometimes result in a completely new trait like better vision (trichromatic vision).
- **Natural Selection:** Theory by Charles Darwin where organisms with traits that help them survive are more likely to reproduce.
- **Adaptation:** A special characteristic that enables an organism to be successful in a particular environment.
- **Extinct:** To no longer exist. For a species, to no longer have any members of that species alive.
- **Survive:** To exist.
- **Evolve:** To change into something else.
- **Forage:** To search for food.

NATURAL SELECTION SIMULATION

You are all birds from the same species with slightly different beakes (plastic fork, plastic spoon, plastic knife, or toothpick/chopsticks). Your goal is to pick up as much food (beans & marshmallows) off the tray/ plate as you can, in one minute, with your utensil.

RULES:

- One hand can hold the utensil, and the other hand must go behind your back.
- Use the utensil to collect food (beans & marshmallow) by moving food from the plate into your cup.
- You cannot pick up your cup during the active simulation.
- If you get caught breaking a rule, you will become extinct.
- Record data and observations for each round on pages 2-3 of worksheet.





FUTURE CREATURES CHALLENGE

NATURAL SELECTION GAME CONTINUED

ROUND #1

What utensil were you? How easy or difficult was it to use? Explain.

How many pieces of food did you collect?

TYPE OF UTENSIL	# OF PIECES OF FOOD

Did your utensil move on to the next round? Why or why not?

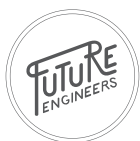
ROUND #2

What utensil were you? How easy or difficult was it to use? Explain.

How many pieces of food did you collect?

TYPE OF UTENSIL	# OF PIECES OF FOOD

Did your utensil move on to the next round? Why or why not?





FUTURE CREATURES CHALLENGE

NATURAL SELECTION GAME CONTINUED

ROUND #3

What utensil were you? How easy or difficult was it to use? Explain.

How many pieces of food did you collect?

TYPE OF UTENSIL	# OF PIECES OF FOOD

Did your type of beak move on to the next round? Why or why not?

Evolution is the change in the characteristics of a species over generations.

How did the entire group's beak characteristics change after 3 generations? How? Explain

