

Biology - Revere HS
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*Survivor:
Galapagos
Island*



Evolution Activity

"... can we doubt (remembering that many more individuals are born than can possibly survive) that individuals having any advantage, however slight, over others, would have the best chance of surviving and of procreating their kind? On the other hand, we feel sure that any variation in the least degree injurious would be rigidly destroyed. This preservation of favourable individual differences and variations, and the destruction of those which are injurious, I have called Natural Selection, or The Survival of the Fittest."

Charles Darwin "On the Origin of Species by Means of Natural Selection" 1859

The objective of Survivor Galapagos Island is to create a device using only the materials provided that can capture food and transport it to the mouth of a hungry offspring. The team of two students that delivers the most food receives the most points and has the "best chance of surviving and of procreating their kind."

To aid in the development of a strategy the following materials **may** be provided in a plastic bag: balloon(s), elastic(s), plastic coffee stirrers, Popsicle stick(s), binder clip(s), paper clip(s), Styrofoam ball(s), pipe cleaner(s), stale mini-marshmallows, and heavy stock paper. There may be some additional **bonus** materials added the day of the event.

The day of the event, student participants will be shown the "hungry offspring" and the food (prey). The "hungry offspring" will consist of a PVC pipe with a diameter no greater than 4 inches (10.16cm). The "food" may be **one** of the following: beans, candy, popcorn, rice, cereal, and/or small metal items. Most likely, the "food" will be mixed with non-food items. If the offspring is accidentally "fed" a non-food item a deduction will occur. The container holding the food might also present some interesting design challenges. Inappropriate behavior will result in instant disqualification. Good luck and remember, sometimes Dar"win" and sometimes Dar"lose".

Devices must be operated by hand but cannot be directly attached to the hand. In other words, you may not attach (with tape, staples, paper clips etc) Popsicle sticks directly to your fingers (or any other part of your body, for that matter).