**Competition for Resources Project 2018 - 2019**

Purpose: To model competition between organisms for resources in an environment

Materials: Vocabulary cut-outs; animal toys, big paper, glue sticks, color markers, research technology (phones, iPads or Chromebooks).

1. **Days 1 & 2** (Vocabulary) – Set out class copies of notes regarding food webs, species, ecosystems, and interdependence of species in an ecosystem. Students are to take notes at each station in their science journal. They are to make notes reflecting:
   1. Vocabulary terms
   2. Paraphrased definitions
   3. Sketch of what each term means to them. ie – Invasive Species: Non-native species introduced into an ecosystem, that harms the native species. Sketch of Lion Fish on coral reef.
2. **Day 3 & 4 (competition)** - Divide into groups of ~4. Each group chooses an ecosystem with 7 abiotic resources plus food (biotic resources) and 16 organisms for that ecosystem. Following these instructions, create a graphic organizer for each ecosystem.
   1. Teams receive ecosystems & read these instructions
   2. Find 3 abiotic resources in addition to water, light, space and air.
   3. Each member chooses 2 resources.
   4. Research two organisms that compete for each of those resources and place them on the graphic organizer with arrows to the resources they compete for.
   5. Each team member identifies one trait shared by both organisms competing for one resource. Explain how that trait gives an advantage in competing for that resource.
   6. Tell what exact food resource is being competed over.
   7. Cut out vocabulary and place at least 4 terms below each organism. Ex: PLATYPUS; descriptors stack as
      1. Biotic Factor – “is living or once living”
      2. Heterotrophic – “consumes others for food”
      3. Predator – “kills and eats prey”
      4. Carnivore –“eats animals”
3. **Day 5** (Evaluation) – Gallery walk.
   1. Groups split up to different projects – Rate them on the rubric.
   2. Each student rates their teammates’ participation as the last thing immediately before turning their sheet in. Only teacher and the individual see their ratings of their teammates.
   3. Turn in at least 2 evaluations (yours and one other) with participation grades for yourself and your team at the bottom of one.