**Population Dynamics Misconceptions**

**How to Overcome Misconceptions in your Classroom**

**Misconception #1** – Plants cannot defend themselves against herbivores

False! There are several physical and chemical plant defences

* Inquiry based approach
  + Students can research independently or in pairs to study plants all over the world and explore different plant defences
  + Students will create a brief two minute presentation to show case their findings
  + Alternatively students can create an infographic or create a pamphlet to showcase their findings
  + TIP – try to assign students to examine plants from each continent for a greater appreciation and diversity

**Misconception # 2** – Varying the population size of a species will only affect the others that are directly connected through a food chain

False! Changes in one population size will affect all levels of the food web

* Online Gizmos
  + Students will explore the ecosystem gizmo to identify factors that affect population size
  + <https://www.explorelearning.com/index.cfm?method=cResource.dspDetail&ResourceID=639&ClassID=0>
  + Students will make predictions to estimate the population of various populations at different cycles of growth

**Misconception # 3** – Communities change little over time

False! Communities are dynamic and adapting

* Art Integration
  + Students will select a Canadian region and create a pictoral time line to show the changes in population dynamics over the past 200 years
  + Display timelines around the classroom to showcase student work
  + TIP – model with students the expectations and show examples