**Follow-up questions that can be used on an exam or as homework.** Correct answers are highlighted.

Which of the following figures supports the hypothesis that surgeonfish are beneficial to sea turtle survival?

a. b. c. d.



You observe a student feeding a squirrel and wonder why the squirrels on campus appear less afraid of humans compared to squirrels in a nearby park. Which of the following is a testable hypothesis related to this question?

* 1. T/F squirrels on campus have learned that humans are not a threat
  2. T/F the species of squirrel in the park has more sensitive hearing than the species

on campus

* 1. T/F squirrels in the park are startled by humans at a greater distance than those on

campus

* 1. T/F squirrels in the park will eat food from a human’s hand

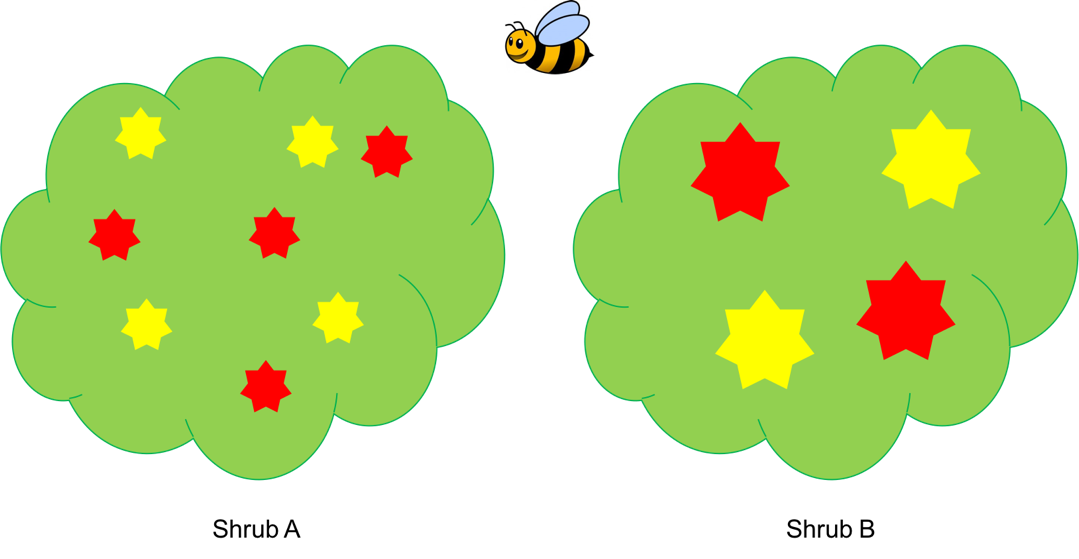
You observe many honey bees at a shrub with several small, red flowers (shrub A). A few meters away, you see another shrub with a few large, yellow flowers (shrub B) but only a few bees are at this shrub. This piques your interest, and when you get home, you look up some facts about honey bees. You learn that honey bees drink nectar produced in flowers, and they live in hives where they communicate to other bees where good flowers are located. But you still want to know **why do bees prefer shrub A over shrub B**.

1. Come up with a hypothesis for why bees prefer shrub A over shrub B.
2. Design an experiment that tests your hypothesis.
3. Make graphical predictions about the results (draw the graph(s) that would support your hypothesis).

You can describe your experiment in words or show it as a diagram.

Example answer:

1. Hypotheses: honey bees prefer certain flower colors over others
   1. other possible hypotheses: honey bees prefer small flowers; honey bees prefer plants with more flowers, honey bees prefer flowers with more nectar, honey bees use signals from other bees to select certain flowers, etc.
2. Experiment: paint some flowers on shrub A yellow and some flowers on shrub B red and observe visitation rates to each color on each plant.



1. Graphical prediction that supports the hypothesis that bees have a flower color preference:

