

**Inquiry Question**

When two organisms unite, what offspring can be created?

**Name:** \_\_\_\_\_ **Date:** \_\_\_\_\_



When two organisms unite to reproduce the resulting offspring have a combination of characteristics from both parents. There are many traits to consider and these result from a combination of genes provided by both the male and female parent. These genes can have either dominant or recessive forms, giving a variety of possibilities for the offspring.

In this activity you will first watch a video which will help in predicting the different possibilities for offspring. Then you will "create" and draw the predicted offspring from two parent organisms.

The choice of parent organism is yours. You can either pick a known organism that uses sexual reproduction to create offspring or you can use your imagination and create offspring from fictional parent organisms. If you choose to let your creative juices flow then be sure to still follow the science of the real world.

**General Instructions**

The goal of this project is to learn how to predict the traits of offspring given the characteristics of the parent organisms.

**Materials you'll need:**

- Internet
- paper
- pencils
- coloured pencils

**Ideas and Hints:**

1. Watch the following video from the Khan academy, [Introduction to Heredity](#).
2. Choose two organisms as parents to your organism and describe their genetics. You will then allow for sexual reproduction between the two parents.
3. Draw the resulting offspring taking into account dominant and recessive traits. Include a Punnett square, as described in the video, to help explain the possible results.
4. Answer the following questions:
  - Where does the organism live?
  - What does it eat?
  - Does it have any predators?
  - Give any other interesting facts.
  - Make sure to include the description for at least 4 adaptations in the offspring and why they are beneficial.

**Project submission:**

Once you have assembled your completed project, upload it to the Biology project drop-box.