

# Selective Breeding

## Summary

Students will read 3 articles about current practices of selective breeding. They will then answer several questions about the article and then create a political cartoon highlighting one of the ideas from the articles.

## Main Core Tie

Science - Biology

[Standard 4 Objective 2](#)

## Time Frame

1 class periods of 70 minutes each

## Group Size

Small Groups

## Materials

- [Readings sheet](#)  
(attached)
  - [student worksheet](#)  
(attached)
- white unlined paper  
colored pencils  
crayons  
markers

## Student Prior Knowledge

Students should understand the advantages and disadvantages of sexual and asexual reproduction. Students should understand Mendelian genetics.

## Instructional Procedures

Make a copy of student sheets

It is best to let them work in small groups of three. Assign one member from each group to read each part and summarize the article for the group.

Allow students to read articles and answer questions.

Let students create a political cartoon. Many students have a difficult time understanding what a political cartoon should be. Emphasize the use of symbols in a cartoon. Students should decide their idea first and then come up with a symbol to represent it. You may want to do an example as a class. If the idea were overpopulation a symbol could be a stork who was overburdened by carrying a huge number of babies, or a sardine can full of people. Encourage students to be creative.

## Assessment Plan

### Answers to Questions:

Find 2 dogs of opposite sexes which share the trait that you want and then breed those dogs. Continue this process and you will eventually get a breed how you want it.

Possible dangers include genetic disease from inbreeding. Example many pure bred dogs suffer from arthritis or epilepsy. And also things like back problems for weiner dogs, breathing problems for pug dogs etc.

Cross-pollination is when the egg from one plant and sperm from a different plant are pollinated. This is sexual reproduction. The plants benefit more because sexual reproduction always creates more diversity than asexual reproduction. With more genes to choose from plants become better adapted to their environment.

Hybridization is selecting 2 different varieties of plants, both with desirable characteristics, and cross-pollinating them. The resulting plant will be a self-pollinating one this is important because all future offspring would be genetically identical.

### Bibliography

Lesson Design by Jordan School District Teachers and Staff.

### Authors

[Utah LessonPlans](#)