**Student Worksheet: Hybrid hijinks**

**Directions**: In this lesson, you will review genetic concepts, explore natural selection as well as artificial selection, and take a closer look at hybridization. To begin, play a word matching game with a partner as directed by your teacher.

**The origins of the potato**

Read the *Science News* article “[Potatoes have their roots in ancient tomatoes](https://www.sciencenews.org/article/potatoes-roots-ancient-tomatoes-origin)” and answer the questions below.

1. Using the article for reference, name an example of artificial selection, specifically selective breeding.

2. What are some “pros” of selective breeding? In other words, why do humans want to do this process?

3. What would be a “con” of selective breeding? In other words, what problem(s) may arise from humans controlling the genetic crosses?

4. Using the article for reference, name an example of natural hybridization.

5. Because natural selection drives natural hybridization, what benefits can be seen in the offspring?

6. Please complete the comparison chart below:

|  |  |  |
| --- | --- | --- |
| **Feature** | **Selective Breeding** | **Natural Hybridization** |
| **Driven by** |  |  |
| **Purpose** |  |  |
| **Speed** |  |  |
| **Genetic Diversity** |  |  |

**Hybridization exploration**

Choose a hybrid organism you want to research and present to the class. Create a presentation as directed by your teacher. Include your answers to the questions below in your presentation. Be careful to use a reliable source and cite your sources.

1. What is the name of the organism you chose to research?

2. What are the parent organisms?

3. Is it an example of selective breeding or natural hybridization? Explain why.

4. What are the benefits of this hybrid organism? What are the challenges?