**February Notes: Day 5 Selective Breeding**

Name: Period: Date:

**Aim: What is Selective breeding?**

**Do now: I am a farmer who lives in Canada. I need a cow that is hairy for the cold weather and makes a lot of milk. What can I do?**

**Selective Breeding**

* , (also known as selection), is when are created with particular as a result of parents that possess the traits.
* and ranchers have used this technique for of years to produce of individuals.
* Example: Cattle for meat, cows for high milk , chickens for egg size, flowers for colors, dogs to produce new .

**Selective Breeding drawbacks.**

1. Selective breeding the number of combinations in a population. \*\*\*\*\*\*Thinning the gene pool.
2. It is a process. It takes many to consistently get offspring with desired traits. Usually offspring from the same family are together. (inbreeding)
3. **Inbreeding** is the long term breeding of closely related organisms with characteristics. (brother –sister, 1st cousins – 1st cousins)

But, offspring of inbreeders tend to suffer from disorders because harmful genes build up in the population

1. Selective breeding can cause serious problems. Because gene combination is , there is no . If a new type of appears, as all of the organisms could be out.

Example: Pure breed dogs are less than mutts (mixed breed dogs.)

1. There is no the offspring will have the traits.

Artificial Selection

1. What is selective breeding? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. Who picks the traits that get passed on during the selective breeding process? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. Complete the chart

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| --- | --- |
| Selective breeding | |
| Advantages | Disadvantages |
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|  |  |

1. Which of the following is NOT an advantage of selective breeding?
   1. maintains certain stable traits to pass down to the offspring
   2. traits help the animal prosper in confinement
   3. breeding for only one trait can cause problems in other traits
   4. makes the species stronger
2. Selective breeding is a technique that is used to
   1. give all organisms a chance to reproduce
   2. produce organisms from extinct species
   3. produce offspring with certain desirable traits
   4. keep farm crops free of all mutations