**Sexual Reproduction, Asexual Reproduction, or both?** Name:

 Date: Period:

Go to the website <http://learn.genetics.utah.edu/content/variation/reproduction/>. Based on the picture of the organism, make a prediction about which type of reproduction the organism uses and record it in the chart below. Next, click on the picture and read the description then again predict which type of reproduction is used based on your knowledge of the two types of reproduction. Lastly, click on the type of reproduction you predicted to determine whether or not you were correct and record the correct answer.

|  |  |  |  |
| --- | --- | --- | --- |
| **Organism** | **Prediction from picture** | **Prediction from description** | **Correct answer** |
| Honey Bee |  |  |  |
| Pink Salmon |  |  |  |
| Sunflower |  |  |  |
| Leopard Frog |  |  |  |
| Baker’s Yeast |  |  |  |
| Bald Eagle |  |  |  |
| Sea Horse |  |  |  |
| Brittle Star |  |  |  |
| Monarch Butterfly |  |  |  |
| Salmonella (bacteria) |  |  |  |
| Giant Amoeba |  |  |  |
| Coast Redwood |  |  |  |
| Volvox (algae) |  |  |  |
| Sand Scorpion |  |  |  |
| Flat-back Sea Turtle |  |  |  |
| Grizzly Bear |  |  |  |
| Earthworm |  |  |  |
| Whiptail Lizard |  |  |  |
| Garden Strawberry |  |  |  |
| Red Kangaroo |  |  |  |
| Saguaro Cactus |  |  |  |

1. Describe some of the characteristics common in animals use sexual reproduction, animals that use asexual reproduction, and animals that use both.
2. Which characteristics led you to determine whether an organism produces sexually or asexually?
3. Explain how mitosis or meiosis is involved in each type of reproduction.

**Sexual Reproduction, Asexual Reproduction, or both?** **Answer Key**

Go to the website <http://learn.genetics.utah.edu/content/variation/reproduction/>. Based on the picture of the organism, make a prediction about which type of reproduction the organism uses and record it in the chart below. Next, click on the picture and read the description then again predict which type of reproduction is used based on your knowledge of the two types of reproduction. Lastly, click on the type of reproduction you predicted to determine whether or not you were correct and record the correct answer.

|  |  |  |  |
| --- | --- | --- | --- |
| **Organism** | **Prediction from picture** | **Prediction from description** | **Correct answer** |
| Honey Bee |  |  | both |
| Pink Salmon |  |  | sexual |
| Sunflower |  |  | sexual |
| Leopard Frog |  |  | sexual |
| Baker’s Yeast |  |  | asexual |
| Bald Eagle |  |  | sexual |
| Sea Horse |  |  | sexual |
| Brittle Star |  |  | both |
| Monarch Butterfly |  |  | sexual |
| Salmonella (bacteria) |  |  | asexual |
| Giant Amoeba |  |  | asexual |
| Coast Redwood |  |  | both |
| Volvox (algae) |  |  | asexual |
| Sand Scorpion |  |  | sexual |
| Flat-back Sea Turtle |  |  | sexual |
| Grizzly Bear |  |  | sexual |
| Earthworm |  |  | sexual |
| Whiptail Lizard |  |  | asexual |
| Garden Strawberry |  |  | both |
| Red Kangaroo |  |  | sexual |
| Saguaro Cactus |  |  | sexual |

1. Describe some of the characteristics common in animals use sexual reproduction, animals that use asexual reproduction, and animals that use both.

Sexual: multicellular, able to move freely or be fertilized by symbiotic relationship with another organism

Asexual: unicellular, microscopic

Both: no definitive matching characteristics but have adapted to be able to use asexual reproduction when conditions require it

1. Which characteristics led you to determine whether an organism produces sexually or asexually?

Size, description of mating or reproductive traits
2. Explain how mitosis or meiosis is involved in each type of reproduction.

Mitosis: organisms use this type of cell division in asexual reproduction to make identical copies of their cells containing identical DNA (two alleles per gene) and the same number of chromosomes.

Meiosis: organisms use this type of cell division to make gametes containing DNA with only one allele per gene and half the number of chromosomes as the parent cells. During fertilization the gametes combine making a cell with the correct number of chromosomes and two alleles per gene.