Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**# \_\_\_\_**  Date \_\_\_\_\_\_\_\_\_\_\_\_\_\_ Period \_\_\_\_\_\_

**Monster Lab**

Monsters have a variety of characteristics that follow a specific pattern of inheritance. In this activity, you will look at some characteristics and investigate how they are inherited.

**Part 1: Procedure**

1. Flip a coin to determine which characteristic (or trait) a monster will inherit from each parent. You will determine the characteristics of a male monster and a female monster.

* If you flip a ***HEADS*** for a characteristic or trait, you will represent it with a *CAPITAL* letter.
* If you flip a ***TAILS*** for a characteristic or trait, you will represent it with a *lowercase* letter.

1. Your first flip will be for the characteristic or trait that comes from the mom and the second flip will be for the characteristic or trait that comes from the dad. You will need to flip twice for each characteristic because every offspring receives genetic material for each of their traits from each of their parents. Write the letter representing each characteristic or trait in the chart using the correct letters found on the **Monster Code Table**. Flip for all characteristics for both of the monsters.
2. Write both of the letters together to determine the monster’s genetic combination for each characteristic or trait. For example, if you flipped heads twice, your monster will have two capital letters representing that trait (for example - DD). Two tails is indicated with two lowercase letters (dd) and any combination of a capital and lowercase letter is always written with the capital letter first (Dd). Even if tails comes up first and heads comes up second, always write the capital letter first. Complete the chart for all of the monsters’ genetic combinations.
3. Use the **Monster Code Table** to find and record the physical characteristic or trait that goes with each genetic combination that you recorded.
4. Based on their physical characteristics or traits, accurately draw your monsters on a separate piece of paper.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Female Monster** | | | | |  | **Male Monster** | | | | |
| **Trait** | **Letter from Mom** | **Letter from Dad** | **Genetic letter combination** | **Physical trait** |  | **Trait** | **Letter from Mom** | **Letter from Dad** | **Genetic letter combination** | **Physical trait** |
| **Face Shape** |  |  |  |  |  | **Face Shape** |  |  |  |  |
| **Body Shape** |  |  |  |  |  | **Body Shape** |  |  |  |  |
| **Number of Arms** |  |  |  |  |  | **Number of Arms** |  |  |  |  |
| **Number of Legs** |  |  |  |  |  | **Number of Legs** |  |  |  |  |
| **Fur Type** |  |  |  |  |  | **Fur Type** |  |  |  |  |
| **Fur Color** |  |  |  |  |  | **Fur Color** |  |  |  |  |
| **Eye Shape** |  |  |  |  |  | **Eye Shape** |  |  |  |  |
| **Eye Color** |  |  |  |  |  | **Eye Color** |  |  |  |  |
| **Teeth** |  |  |  |  |  | **Teeth** |  |  |  |  |
| **Ear Shape** |  |  |  |  |  | **Ear Shape** |  |  |  |  |
| **Nose Shape** |  |  |  |  |  | **Nose Shape** |  |  |  |  |
| **Tail Shape** |  |  |  |  |  | **Tail Shape** |  |  |  |  |
| **Tail Color** |  |  |  |  |  | **Tail Color** |  |  |  |  |
| **Horns** |  |  |  |  |  | **Horns** |  |  |  |  |
| **Horn Color** |  |  |  |  |  | **Horn Color** |  |  |  |  |