Heredity Activity:

Consider the following list of traits and their alternate forms.

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| --- | --- | --- |
| **TRAIT** | **Dominant Form (Heads)** | **Recessive Form (Tails)** |
| Head Shape | Triangular (T) | Round (t) |
| Chin shape | Cleft (C) | Round (c) |
| Hair | Straight (S) | Curly (s) |
| Mouth Shape | Wavy (W) | Angular (w)  |
| Ears | Two Bump (B) | One Bump (b) |
| Nose Direction | Left (L) | Right (l) |
| Nose Size | Small (S)  | Big (s) |
| Eye Shape | Round (R) | Star (r) |

For each trait flip a coin twice to determine the two alleles of your individual. Record the results below.

Your Individual’s Genotypes

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Head Shape | Chin Shape | Hair | Mouth Shape | Ears | Nose Direction | Nose Size | Eye Shape |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Draw Your Individual in the box below:

Next, with your breeding partner, for each trait, you each flip a coin. If you flip heads you choose the first allele in the genotype for that trait, if you flip tails you choose the second allele in the genotype for that trait. For example if your individual has the genotype Cc for mouth and you flip heads, you donate C, if you flip tails you donate c. In this way determine the two alleles for each trait for your offspring. Remember to always write the dominant allele first in any heterozygous genotypes.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Head Shape | Chin Shape | Hair | Mouth Shape | Ears | Nose Direction | Nose Size | Eye Shape |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

Draw your offspring.