

What is Inheritance?

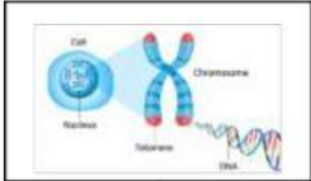
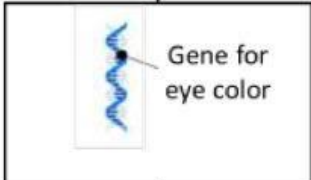

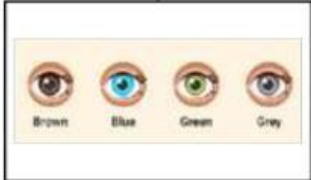


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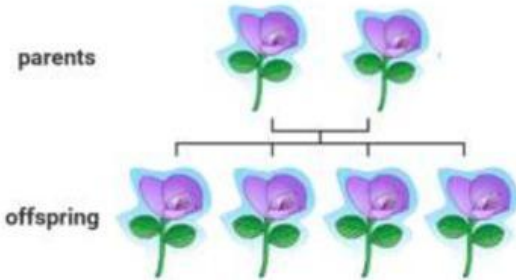
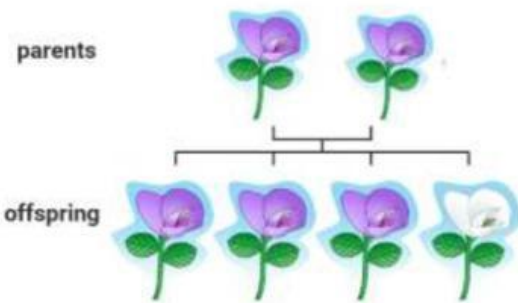
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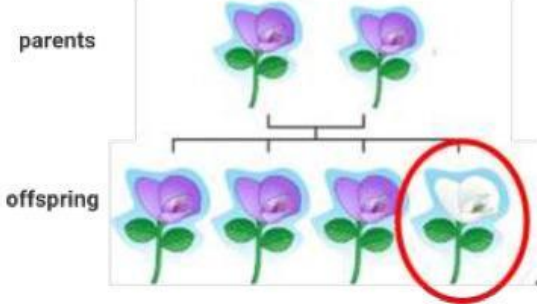
1. In this activity, you will discover the relationship between genes, genotype, phenotype and alleles. Match each step with its description.

Steps	Description
<p>1</p> 	<p>Rami has traits (for example a phenotype of brown eye color)</p>
<p>2</p> 	<p>The different versions of genes for eye color are called: Alleles</p>
<p>3</p> 	<p>DNA determines the genotype</p>
<p>4</p> 	<p>Inside each cell there are chromosomes made of (DNA)</p>

2. A farmer is reproducing flowers. In each case he used different types of purple flowers to produce offspring. Looking at the offspring, predict which parents are homozygous and which are heterozygous. Check the correct box in each case.

Case 1	Case 2
<p>parents</p>  <p>offspring</p>	<p>parents</p>  <p>offspring</p>
<p><input type="checkbox"/> Parents have the same alleles for color. They are homozygous</p> <p><input type="checkbox"/> Parents have different alleles for color. They are heterozygous</p>	<p><input type="checkbox"/> Parents have the same alleles for color. They are homozygous</p> <p><input type="checkbox"/> Parents have different alleles for color. They are heterozygous</p>

3. Look at the color trait of the parents and their offspring. Why does one of the offspring have a different color than both parents?

<p>parents</p>  <p>offspring</p>	<p><input type="checkbox"/> the white flower had too much sunlight when growing up</p> <p><input type="checkbox"/> white color allele is recessive. The white flower got recessive white alleles from each parent</p> <p><input type="checkbox"/> white color allele is dominant. The white flower got recessive white alleles from each parent</p> <p><input type="checkbox"/> purple color allele is recessive. It blocks the white color allele</p>
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