

Genetics

Lesson:2

Chapter:4

Page:53

2. Identify in the second figure to the right, shade the square that represent offspring with yellow seeds.

I shaded in the figure for yellow seeds YY and Yy

**Commented [1]:** Very good! This is correct. Are they (YY and Yy) dominant or recessive?

What is the phenotype type of "yy" is this dominant or recessive?

3. Explain why do a large number of offspring have to be counted in order to get accurate results?

When studying genetics, you have to count a large number of offspring in order to get accurate results.

**Commented [2]:** ...but why? You haven't yet answered the question.

Page:54 paragraph:11

4. Summarize what results when a dominant allele is present in a pea plant?

The presence of one dominant allele results in a dominant phenotype in a pea plant. Not all allele pairs, however, have a dominant-recessive interaction.

**Commented [3]:** Clarify this statement.

Page:55 paragraph:4

5. Identify which blood type is characterized by codominance?

When both alleles can be observed in a phenotype, this type of interaction is called codominance. If you inherited the b allele from one parent and an a allele from the other parent, you will have type AB blood.

**Commented [4]:** Be sure to study the blood type chart. You should be ready for the test.

Page:55 paragraph:11

6. State what type of chromosome determine a person's sex or gender?

Recall that human have 23 pairs of homologous chromosomes in their body cells. Sperm and egg cells, however, have only one chromosome pair. Most homologous chromosomes pairs are of equal size. There is one exception- the long X and short Y pair. Chromosomes X and Y are the sex chromosomes because they contain the genes that determine a person's gender or sex.

Page:56 paragraph:1

7. Explain why can only females pass on maternal inherited traits?

Since the sperm's tail does not enter the egg cell during fertilization, humans inherit mitochondrial genes only from their mothers. This means the inheritance of traits related to mitochondrial can be traced from a grandmother to her children and her grandchildren.

Materially inherited traits can be passed to Male offspring, but only female offspring can pass the gene on.

Page:56 paragraph:23

8. Explain how does a emulation affect an organism?

A similar thing can happen if a mutation, or change to a gene occurs. An organism with a mutation cannot function as it should.

Page:57 paragraph:4

9. Highlight the genetic disorder that affects the blood.

I highlighted sickle cell disease

10. Predict how will lack of nutritious food affect a person's phenotype?

Poor nutrition can contribute to stress and tiredness. It can contribute to the risk of developing some illnesses and other health problems.

11. Think-pair-share list one of the summary statements below. Then explain that statement to a partner then explain a different statement to you.

Traits might be influenced by more than one allele

My explanation was a person can only inherit two of the allele, one from each parent.

**Commented [5]:** Clarify your statement. What is emulation?

**Commented [6]:** Why? Remember, you should be explaining your answers as if I never read the text or as if I do not know the answer and you are explaining it to me.