

**Traits, Inheritance, Genes Questions - Video Extension**

*"Identical Twins: Same DNA, Different Environment"*

- 1.) What is exactly the same for identical twins?
- 2.) List 4 differences that identical twins would have.
- 3.) Where do differences between identical twins come from?
- 4.) What are fraternal twins?

*"Sources of Variation"*

- 1.) In asexual reproduction, where does genetic variation come from?
- 2.) What is a mutation?
- 3.) In sexual reproduction, where does genetic variation come from?
- 4.) What type of reproduction produces more genetic variation in a species?

*"Patterns of Inheritance"*

- 1.) What makes it difficult to predict inheritance?
- 2.) When is inheritance more predictable?
- 3.) What could be the result of a change in the DNA sequence?

*"Sex Chromosomes"*

- 1.) What set of chromosomes do females have?

- 2.) What set of chromosomes do males have?
- 3.) Why do males inherit just one copy of their genes?
- 4.) What set of chromosomes do male reptiles have?
- 5.) What set of chromosomes do female reptiles have?
- 6.) Describe two instances where the sex of an organism is not determined by the chromosomes.
- 7.) Why are color-blindness and Duchenne muscular dystrophy more common in males?

*"DNA Is All the Same Chemical"*

- 1.) All living things have DNA that is made up of the same molecules, so why do organisms look different?

*"The Human Genome"*

- 1.) What is a "sequence"?
- 2.) How many letters are in the entire human genome?
- 3.) How many genes are in the human genome and what is the function of most of those genes?

*"Your DNA Makes You Unique"*

- 1.) What percentage of your DNA is the same as the person sitting next to you?

- 2.) "All humans have..."

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- 3.) How many bases will differ from person to person in a human gene?

- 4.) What can the differences among the bases cause?