

Genetics and Heredity Assessment

1. While studying about reproduction in organisms, a student made the following list

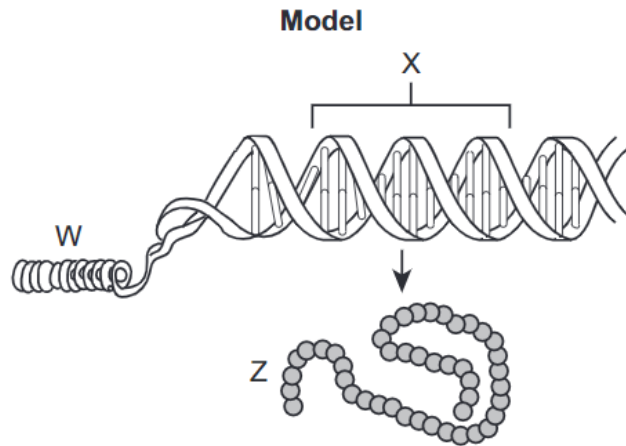
Title?

- produces genetic diversity
- allows for disease resistance
- offers a chance to reduce or remove undesirable traits from a species

Which title for the list is most accurate?

- A. Advantages of Sexual Reproduction
- B. Advantages of Asexual Reproduction
- C. Disadvantages of Sexual Reproduction
- D. Disadvantages of Asexual Reproduction

2. The diagram shows relationships between certain structures within cells.



Which chart correctly identifies these structures and the relationships between them?

A.

Label	Identification	Statement
W	gene	A chromosome unravels to form proteins, which then reorganize to form genes.
X	chromosome	
Z	protein	

B.

Label	Identification	Statement
W	chromosome	A chromosome is composed of genes, which direct the formation of specific proteins.
X	gene	
Z	protein	

C.

Label	Identification	Statement
W	chromosome	Proteins instruct the organization of genes, which coil to form chromosomes.
X	gene	
Z	protein	

D.

Label	Identification	Statement
W	protein	Proteins form by combining sections of chromosomes, which are made of genes.
X	chromosome	
Z	gene	

3. Choose two of the supplies from below and tell us how why they were needed in the experiment.

Materials from DNA Extraction

Dish soap
Salt
Rubbing alcohol
Meat Sample
Ice

4. The functional unit of heredity is the _____.

- A. Gene
- B. Chromosome
- C. Protein
- D. Nucleus

5. DNA exists in the form of _____ strands of DNA coiled about each other.

- A. Double
- B. Triple
- C. Quadruple
- D. Quintuple