YUKON SCIENCE 10 · UNIT A · 10 QUESTIONS

DNA and the Diversity of Living Things — Practice Test

This practice test was made by AI and there may be mistakes. If a question or answer looks wrong, use the Flag a mistake button to let Brett know so he can fix it.

1 **Tobacco smoke is a concern for health because it contains**

- **A** nutrients that repair DNA
- **B** chemicals that can damage DNA
- **C** only harmless gases
- **D** extra copies of healthy genes

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2 **During a long drought, only plants with deep roots survive to make seeds. In this example, the drought is a**

- **A** selection pressure
- **B** mutagen
- **C** clone
- **D** carcinogen

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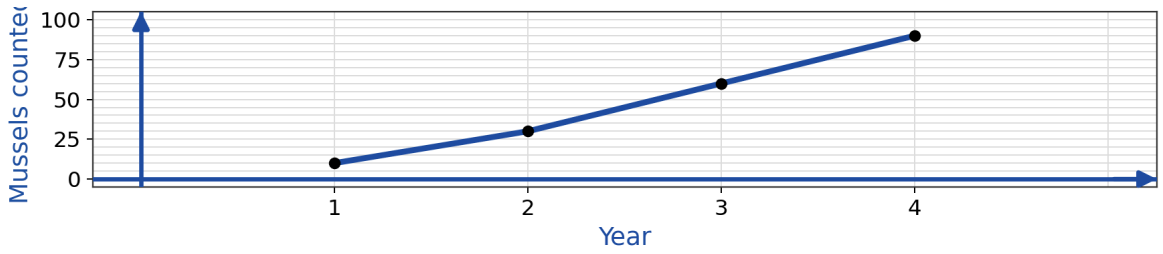
3 **The graph shows zebra mussels counted in a lake over four years. Between year 1 and year 4, the count**



- **A** fell from 90 to 10
- **B** stayed near 50
- **C** rose from 10 to 40
- **D** rose from 10 to 90

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4 **Dog breeds such as herding dogs and sled dogs were produced mainly by**

A natural selection alone

B adaptive radiation

C artificial selection

D random mutation alone

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5 **An ethical question raised by genetically modified foods is whether**

A modified foods should cost less than other foods

B consumers should be told on labels that a food is modified

C farmers should grow only one crop

D foods should be sold in larger packages

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6 **Stem cells are valuable in medicine because they can**

A survive without nutrients

B replace DNA in every cell

C divide only once

D develop into many different cell types

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7 **Identical twins would be expected to have the same DNA profile because they**

A share the same fertilized egg origin

B eat the same foods

C live in the same home

D have the same fingerprints

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8 **A new road cuts through the only habitat of a rare frog. The most direct risk to the frog is**

- A increased genetic diversity
- B adaptive radiation
- C habitat loss leading toward extinction
- D cloning

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9 **A family history shows a trait in every generation and in both sexes about equally. This pattern best fits**

- A a sex-linked recessive trait
- B an autosomal dominant trait
- C a mitochondrial trait only
- D a trait caused by diet alone

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10 **A student argues that humans should not clone pets for profit. This is an example of**

A a Punnett square prediction

B a measurement of mutation rate

C evidence for natural selection

D an ethical consideration about cloning

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ANSWER KEY

1. B
2. A
3. D
4. C
5. B
6. D
7. A
8. C
9. B
10. D

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