Vertebrates II

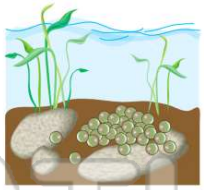
BIO

Name _____ Class _____ Date _____

1 Which is an **important adaptation** for **reproduction** among land animals?

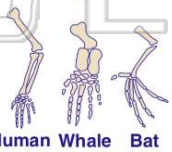
A fertilization of gametes outside the body of the female
B fertilization of gametes within the body of the female
C production of sperm cells with thick cell walls
D production of sperm cells with thin cell walls

2 **Unfertilized eggs** of a frog can be made to undergo **cleavage** if the eggs are pricked with a needle. This type of development is known as



A parthenogenesis
B metamorphosis
C differentiation
D pinocytosis

3 Differences in the **bone arrangements** support the **hypothesis** that these organisms



A are members of the same species
B may have descended from the same ancestor
C have adaptations to

4 Which situation would most likely result in the **highest rate** of **natural selection**?

A reproduction of organisms by an asexual method in an unchanging environment
B reproduction of a species having a very low mutation rate in a changing environment
C reproduction of organisms in an unchanging environment with little competition and few predators

5

7

B human reproduction is very different from that of other mammals
C there are many ethical problems involved in cloning humans
D cloning humans would take too long

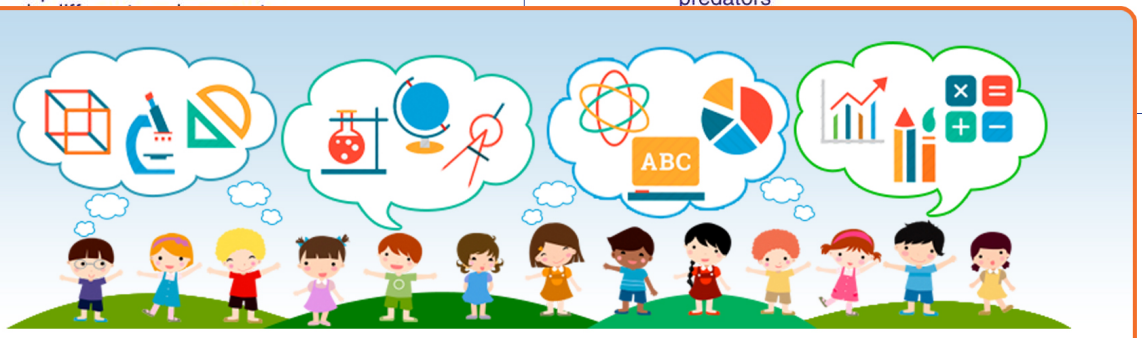
of the environment
B the lack of natural predators
C cycling of energy
D increased numbers of decomposers

9 Some mammals have genes for fur color that **produce pigment** only when the **outside temperature** is above a certain level. This pigment production is an example of how the **environment** of an organism can

A destroy certain genes
B cause new mutations to occur
C stop the process of evolution
D influence the expression of certain genes

10 Most of the **hereditary information** that determines the traits of an organism is located in

A only those cells of an individual produced by meiosis
B the nuclei of body cells of an individual
C certain genes in the vacuoles of body cells
D the numerous ribosomes in certain cells



ANSWER KEY

Which is an **important adaptation** for **reproduction** among land animals?

A fertilization of gametes outside the body of the female
B fertilization of gametes within the body of the female
C production of sperm cells with thick cell walls
D production of sperm cells with thin cell walls

b

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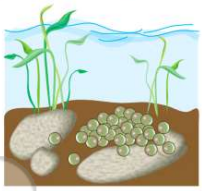
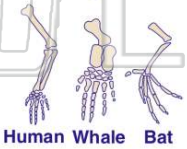


A parthenogenesis
B metamorphosis
C differentiation
D pinocytosis

a

Differences in the **bone arrangements** support the **hypothesis** that these organisms



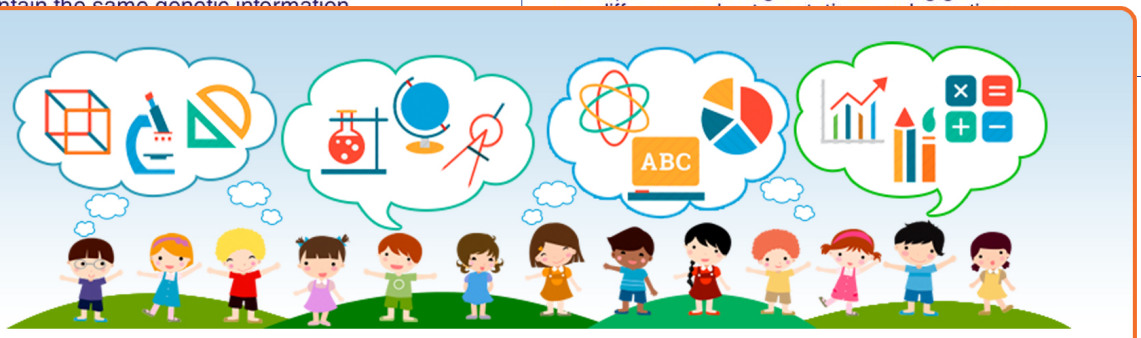
A are members of the same species
B may have descended from the same ancestor
C have adaptations to survive in different environments
D all contain the same genetic information

c

Which situation would most likely result in the **highest rate** of **natural selection**?

A reproduction of organisms by an asexual method in an unchanging environment
B reproduction of a species having a very low mutation rate in a changing environment
C reproduction of organisms in an unchanging environment with little competition and few predators
D reproduction of organisms exhibiting genetic

d



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A

B
that of other mammals
C there are many ethical problems involved in cloning humans
D cloning humans would take too long

B the lack of natural predators
C cycling of energy
D increased numbers of decomposers

Some mammals have genes for fur color that **produce pigment** only when the **outside temperature** is above a certain level. This pigment production is an example of how the **environment** of an organism can

A destroy certain genes
B cause new mutations to occur
C stop the process of evolution
D influence the expression of certain genes

d

Most of the **hereditary information** that determines the traits of an organism is located in

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C certain genes in the vacuoles of body cells
D the numerous ribosomes in certain cells

b