TAKS-M

Texas Assessment of
Knowledge and Skills–Modified

SCIENCE

Grade 10

2010 Sample Items

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1 A student plans to investigate how the speed of a falling object is related to the distance it falls. The student will use a metric ruler. Which other tool should the student use to make appropriate measurements during this investigation?

A Stopwatch

B Graduated cylinder

C pH meter

1 A parent has the genotype AaBb. Which of these shows all the possible allele combinations that would be expected in gametes produced by this parent?

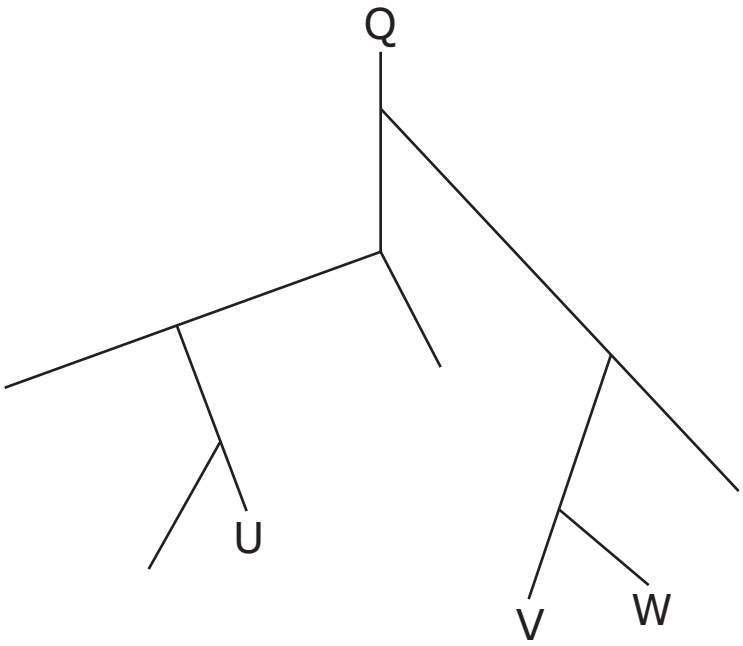
A Aa, Bb, BB, AA

B AB, aB, Ab, ab

C Aa, Bb, AB, ab

1 Look at the diagram below.

Phylogenetic Tree



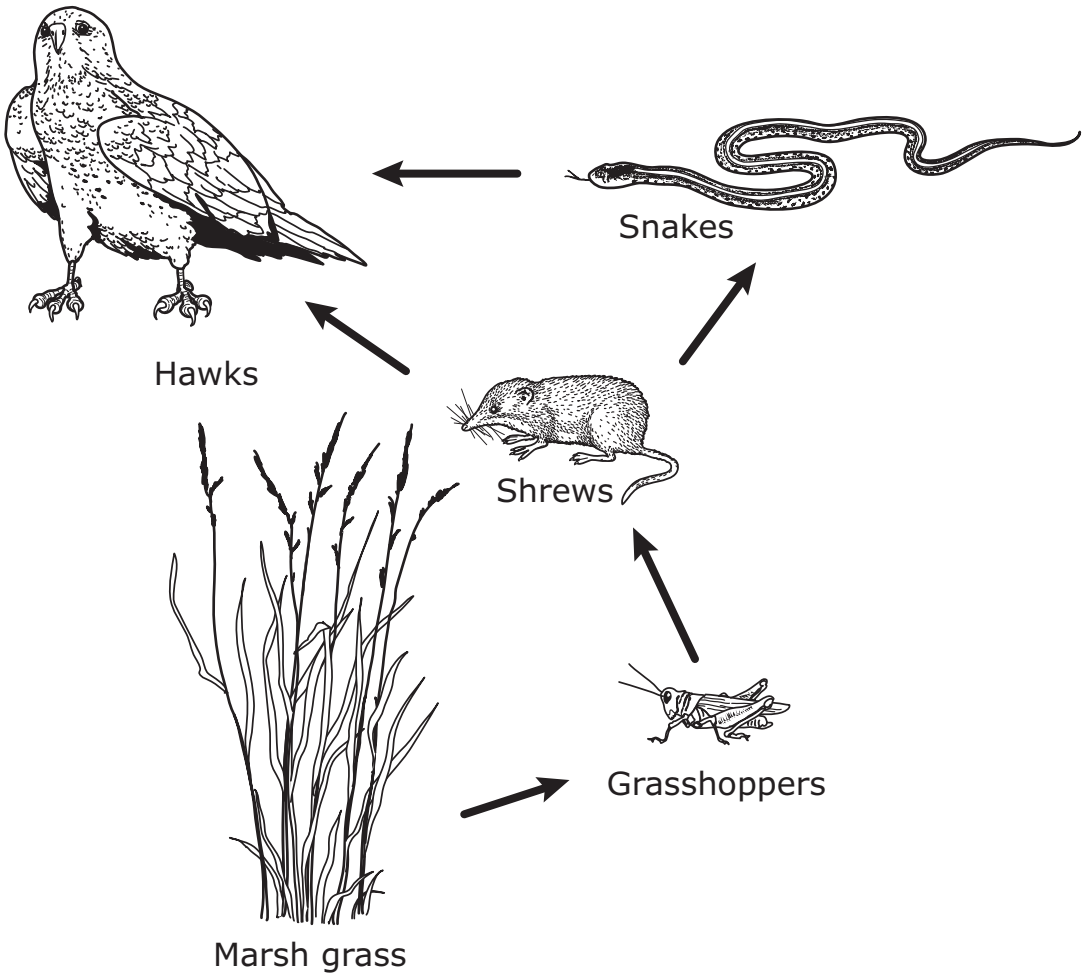
According to this phylogenetic tree, which organism is most closely related to Organism V?

A Q

B U

C W

2 Look at the food web of an ecosystem below.



What would most likely happen if the number of grasshoppers in the ecosystem were reduced?

A The snake population would increase.

B The hawk population would increase.

C The marsh grass population will increase.

1 Seawater is classified as a mixture because seawater —

A can exist as a gas or as a crystalline solid

B contains salts and other dissolved materials

C can support both plant and animal life

2 Look at the equation below.

$$Na + Cl_2 \rightarrow NaCl$$

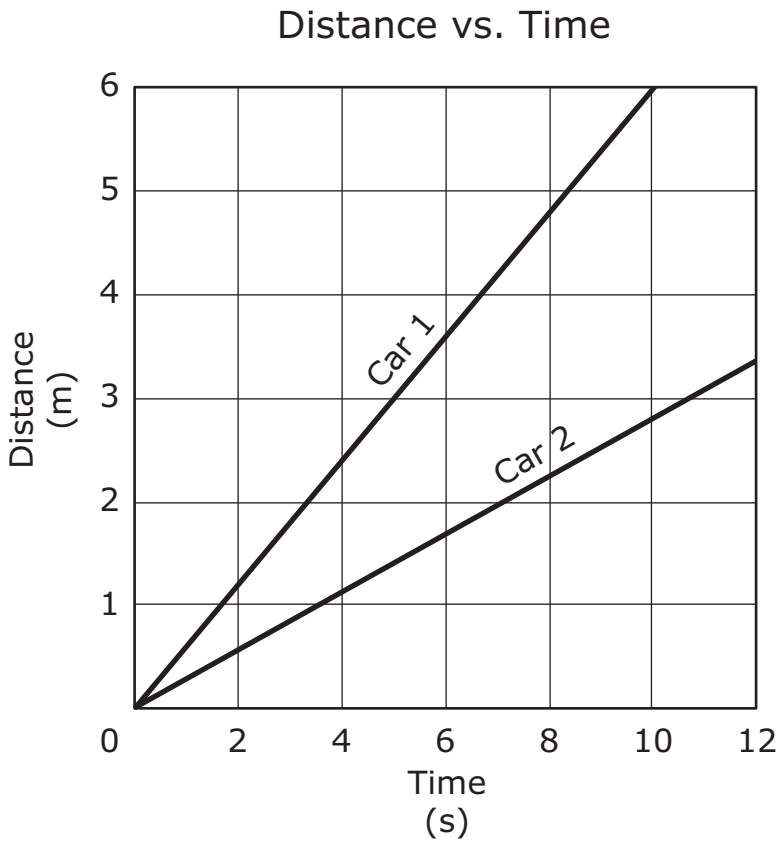
Which of these equations is the balanced form of the equation shown above?

A $Na_2 + Cl_2 \rightarrow Na_2Cl_2$

B $2Na + Cl_2 \rightarrow 2NaCl$

C $2Na + 2Cl \rightarrow 2NaCl$

1 The graph below shows distance versus time for two toy cars moving in straight lines along a level floor.



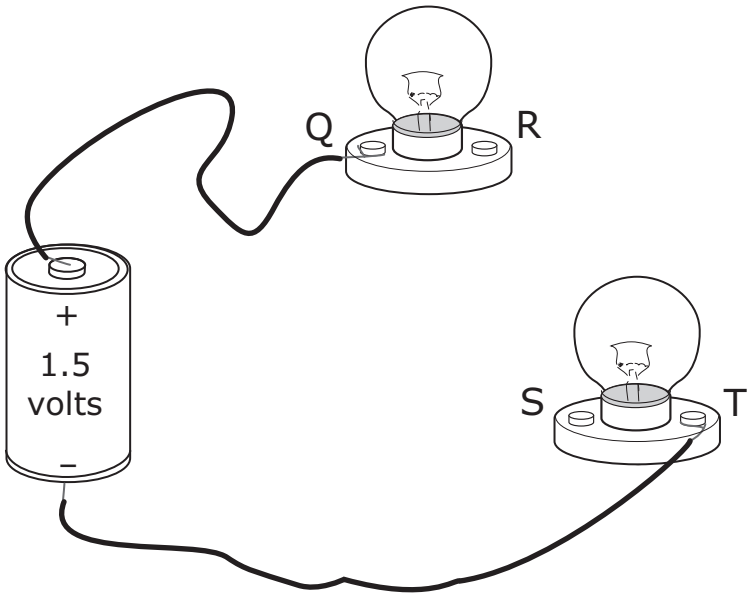
Which statement is best supported by this graph?

A Car 1 has the same weight as Car 2.

B Car 1 has greater speed than Car 2.

C Car 1 has greater momentum than Car 2.

2 The picture below shows an incomplete circuit.



In order for both lightbulbs to glow, a wire must connect points —

A Q and S

B R and S

C R and T

Item Number	Student Expectation	Correct Answer
OBJECTIVE 1		
1	B.2 (A)	A
OBJECTIVE 2		
1	B.6 (D)	B
OBJECTIVE 3		
1	B.7 (B)	C
2	B.12 (E)	C
OBJECTIVE 4		
1	I.7 (E)	B
2	I.8 (C)	B
OBJECTIVE 5		
1	I.4 (A)	B
2	I.6 (F)	B