شكراً لتحميلك هذا الملف من موقع المناهج الإماراتية

تدريبات مراجعة للامتحان منهج انسباير

التواصل الاجتماعي بحسب الصف الثامن




روابط مواد الصف الثامن على تلغرام

التربية الاسلامية	اللغة العربية	اللغة الانجليزية	الرياضيات

المزيد من الملفات بحسب الصف الثامن والمادة علوم في الفصل الأول

1	ملخص وشرح الدرس الأول Lesson1 how light travels مع امتحانات السنوات السابقة
2	ملخص وشرح الدرس الأول Properties Wave خصائص الموجة
3	أسئلة الامتحان النهائي بريدج
4	حل أسئلة الامتحان النهائي - انسباير
5	حل مراجعة الدروس المطلوبة وفق الهيكل الوزاري انسباير

Abdul Jalil Al Faheem school

Science Revision

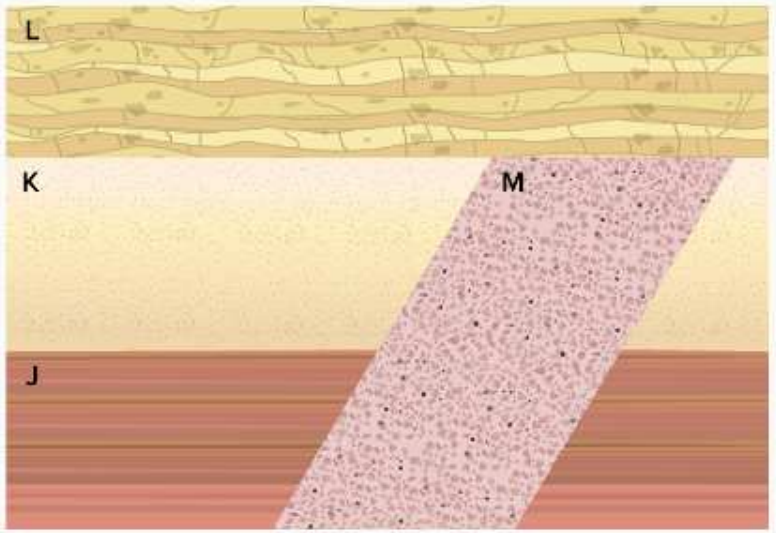
Inspire Science

Grade 8 – Term 1

Science teacher : Hussam Abu Awwad

Imagine you are a geologist. You have been asked to analyze and interpret the rock sequence below. Your task is to determine the relative ages of the rocks.

2. Order the features in the illustration from oldest to youngest.



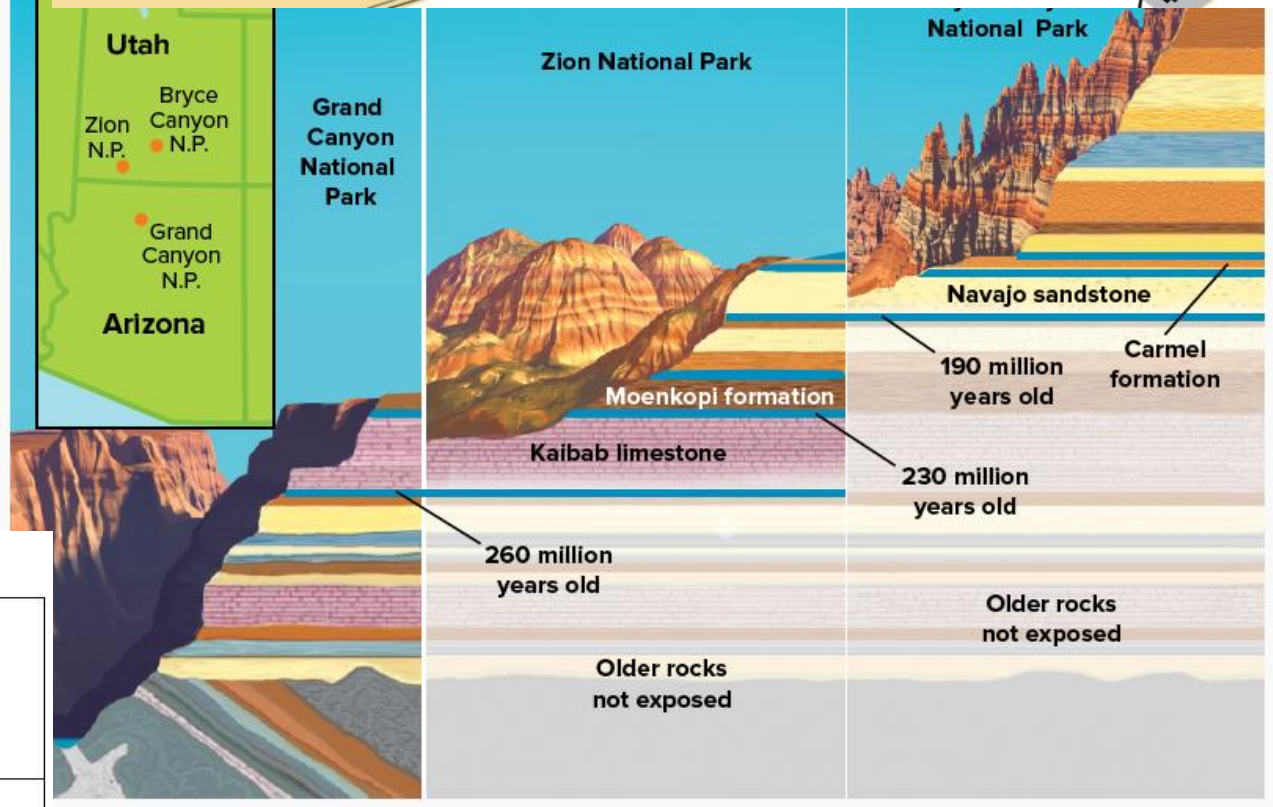
○	A JKLM
○	B MJKL
○	C JKML
○	D MLKJ

3. Which geologic principle must be assumed to determine the relative age of M?

○	A cross-cutting relationships
○	B superposition
○	C original horizontality
○	D inclusions

Module : Geologic time

Lesson 2: Building a Time Line



2. Infer the makeup of the buried layer below Zion's Kaibab layer.

○	A The layer below the Kaibab layer at Zion National Park would likely be the same layer that is immediately above the Kaibab layer at Bryce Canyon National Park.
○	B The layer below the Kaibab layer at Zion National Park would likely be the same layer that is immediately below the Kaibab layer at Grand Canyon National Park.
○	C The layer below the Kaibab layer at Zion National Park would likely be the same layer that is immediately above the Navajo layer at Bryce Canyon National Park.
○	D The layer below the Kaibab layer at Zion National Park would likely be the same layer that is immediately below the Navajo layer at Grand Canyon National Park.

Module : Natural selection and adaptation

Lesson 1: How Traits Change

Use the diagram be
questions.

2. The diagram above shows a segment of DNA before and after replication. Which could have occurred as a result of this change in structure?

○	A changes to the genotype of the organism
○	B changes to the traits of the organism
○	C changes in the production of proteins
○	D all of the above

3. The mutation shown above resulted in muscle degeneration. The effect of this mutation is that muscles become progressively weaker. What type of mutation is this?

○	A positive
○	B neutral
○	C negative
○	D none of the above

2. No two tigers have the same stripe pattern. Such slight inherited traits among individual members of a species occur through mutations. Which term best identifies these differences?

- A mimicry
- B natural selection
- C adaptation
- D variation

3. A bat's heart rate can fall dramatically during hibernation. Its breathing rate is also affected, and it may not breathe for an entire hour. Hibernation supports the bat's survival in its environment. What type of adaptation is hibernation?

- A functional
- B structural
- C behavioral
- D none of the above

4. Which structural genetic change in the finches can be identified as the one most influenced by feeding habits, as proposed by Charles Darwin?

○	A ability to fly from island to island to find the food they prefer
○	B beak size and shape to take advantage of the food they had
○	C claw shapes for perching on limbs while catching insects in their beaks
○	D cooperative behavior so they could share limited seeds and nectar

Module : Natural selection and adaptation

Lesson 3: Artificial Selection

A stud
examples of natural selection with artificial selection.

Natural Selection Traits That Benefit the Species	Artificial Selection Traits That Directly Benefit Humans
• Ability to escape predators • Ability to resist droughts	• •

2. Which can the student add in the column under artificial selection to complete the chart?

1. ability to grow large kernels of corn
2. ability to grow fruit that can be stored for long periods
3. ability to catch larger prey
4. ability to produce milk for offspring

- ○ A 1 and 3
- ○ B 1 and 2
- ○ C 2 and 3
- ○ D 3 and 4

3. Golden rice is a type of rice that has been altered to contain vitamin A. This yellow rice is beneficial to populations that typically do not receive enough vitamin A from other sources. How is golden rice classified?

○	A genetically engineered
○	B genetically modified organism
○	C altered through gene therapy
○	D A and B

Module : Evidence of evolution

Lesson 1: Fossil Evidence of Evolution

2. What method can scientists use to analyze and interpret when the fossils in the bottom of the figure appeared on Earth?

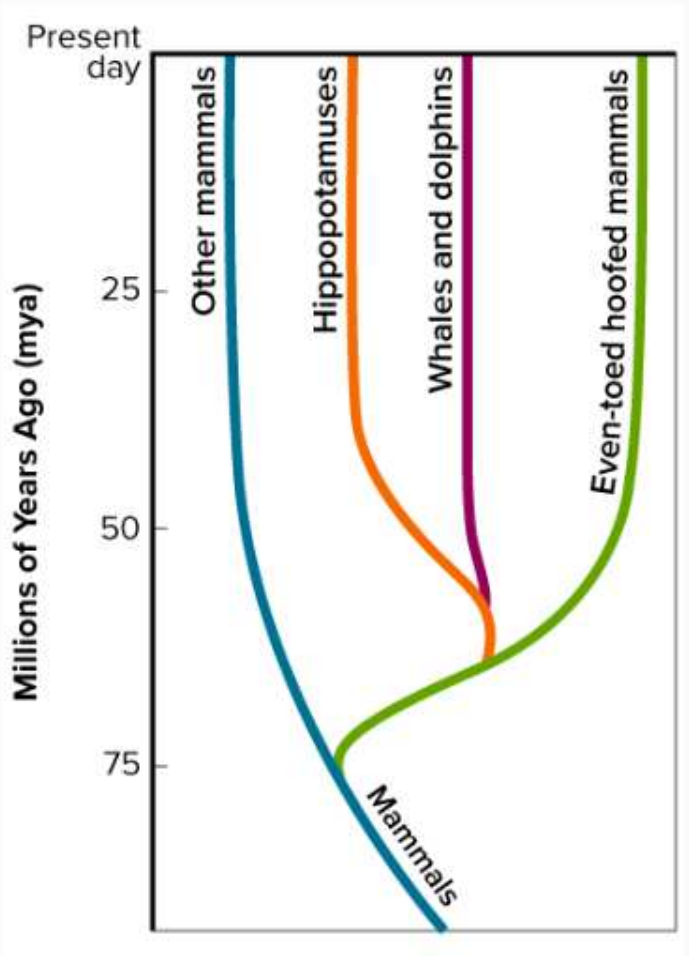
○	A relative-age dating
○	B trace fossils
○	C mineralization
○	D carbonization

3. What pattern can scientists use to interpret the information about the fossils shown in the rock layers?

○	A Rock layers all contain different sets of fossils.
○	B Older fossils are located closet to Earth's surface.
○	C Fossils are younger the closer they are to the surface.
○	D Each fossil is younger than the rock layer in which it is found.

2. Analyze the image to the right that shows even-toed hoofed mammals and other mammals shared a common ancestor. When did this ancestor live?

○	A 25 million years ago
○	B 50 million years ago
○	C 60 million years ago
○	D 75 million years ago



3. Which pattern of development among vertebrates is evidence that they share a common ancestor?

○	A All vertebrates have a vestigial structure called gills.
○	B All vertebrate embryos have pharyngeal pouches during development.
○	C All vertebrates have tails as both embryos and adults.
○	D All vertebrates have identical embryos but differences among structures as adults.

Module : Forces and motion

Lesson 1: Position and Motion

2. The data in the table to the right shows how far a sea turtle travels over several days. What would the line on a plot of this data look like?

○	A The line would curve upward and to the right.
○	B The line would go up and down.
○	C The line would point straight upward to the right.
○	D The line would point upward then downward.

Green Sea Turtle's Distance and Time Data

Time (days)	Distance (km)
0	0
1	16
2	32
3	48
4	64
5	80
6	96

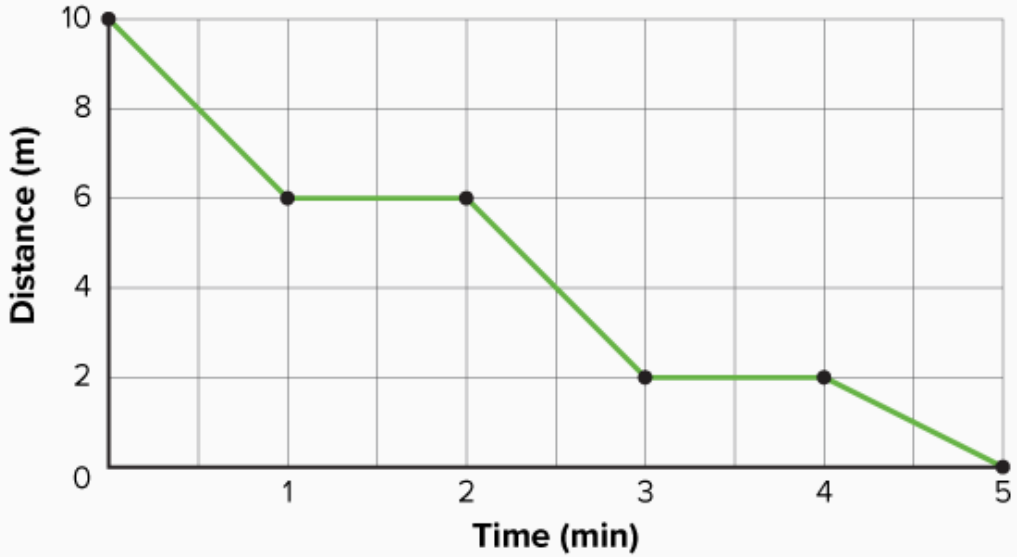
Module : Forces and motion

Lesson 1: Position and Motion

3. If the turtle conti
his distance be at ten days? Type your answer below.

Time (days)	Distance (km)
0	0
1	16
2	32
3	48
4	64
5	80
6	96
7	?
8	?
9	?
10	

4. Interpret Data The plot below shows the motion of an elevator.



Explain its motion.

5. Calculate A driver travels 55 km in 1 hour. He then drives at a speed of 35 km/h for 2 hours. Next, he drives 175 km in 3 hours. What was his average speed?

An object has a force acting on it to the right and has a frictional force to the left as shown below. Use the model below to answer questions 2 and 3.

2. What change in motion will result from the forces modeled?

○	A There will be no change in motion because the forces are in opposite directions.
○	B The object will slow down because of the friction force.
○	C The object will accelerate to the right.
○	D The object will accelerate to the left.

3. What would a model of the net force look like?

○	A The arrow would be to the right at the same length as before, because friction is a different force.
○	B The arrow would be to the right but shorter than before to account for the friction force.
○	C There would be no net force because the two forces are in opposite directions.
○	D The arrow would be to the left because friction is slowing the object down.

A person is applying a force to the right on an object as shown. Use the model to answer question 2–3.

2. What forces are acting on the person?

○	A a slightly smaller force to the left because the object is accelerating
○	B a force equal to the force applied going to the left
○	C a force to the right to apply the force to the object
○	D a force to the right because the object is accelerating

Lesson 3: Force Pairs

3. The person is standing on ice with little to no friction. What w
motion of the person applying the force to the object?

○	A begin to move to the right because that is the direction of the push
○	B no change in motion because the person is pushing the object
○	C begin to move to the left because the object pushes on the person
○	D begin to move to the right with the object

4. Which of the following systems does NOT represent a force pair?

○	A When you push on a bike's brakes, the friction between the tires and the road increases.
○	B When a diver jumps off a diving board, the board pushes the diver up.
○	C When an ice skater pushes off a wall, the wall pushes the skater off of the wall.
○	D When a boy pulls a wagon, the wagon pulls back on the boy.

Module : Forces and motion

Lesson 4: Gravitational Force

The model below represents a star orbited by two planets—Planet A and Planet B. The star is also orbited by a mysterious object, Object X, which entered into the star's gravitational field. The star is the most massive object, followed by Planet B, Planet A, and Object X. Use the model to answer questions 3–4.

3. In the model above, how is the mass of the objects represented?

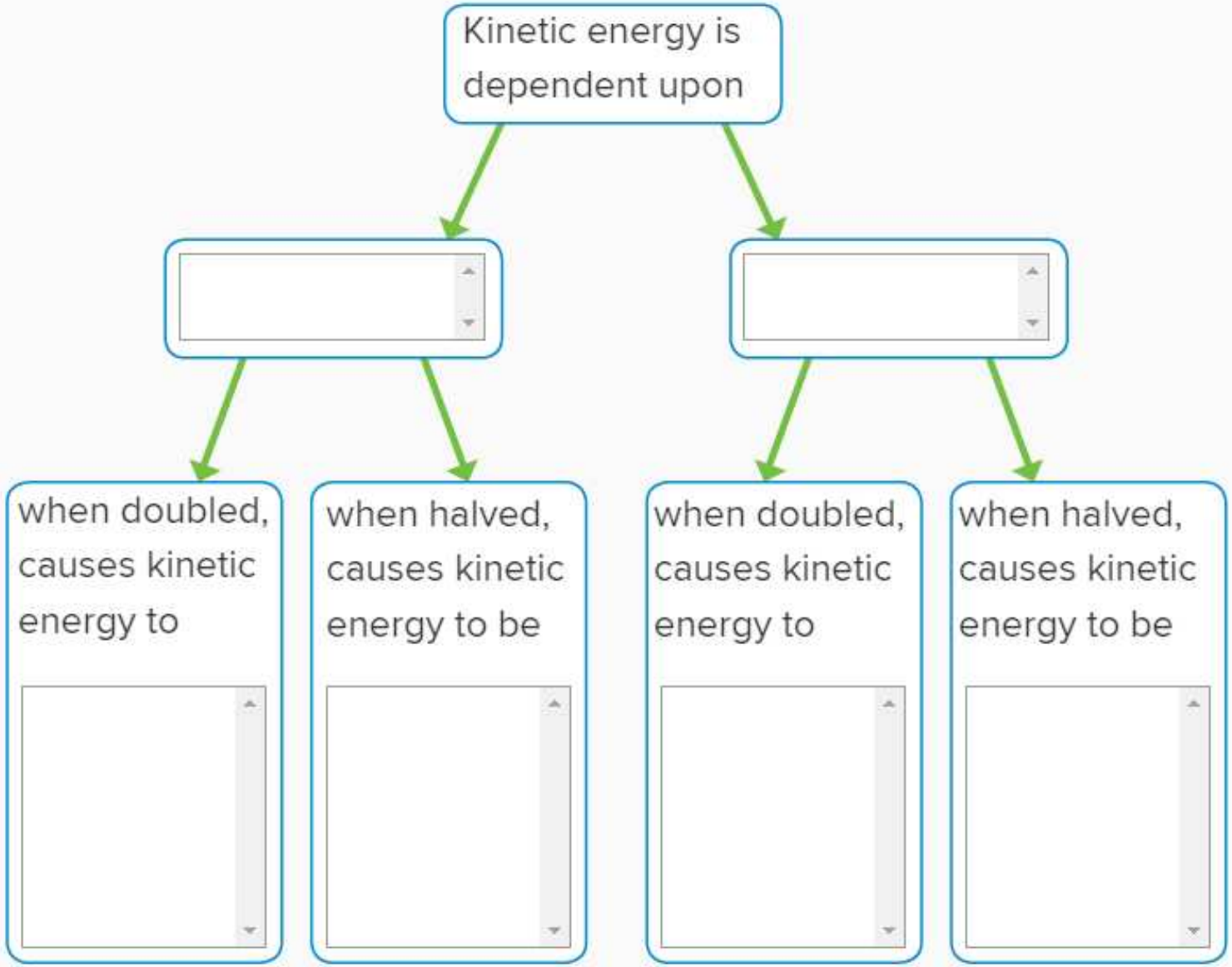
○	A The mass is represented by the size of the objects.
○	B The mass is represented by the distance between the objects.
○	C The mass is represented by the color of the objects.
○	D The mass is not represented.

4. The gravitational force from Planet A on the star is shown in the model. How should the arrow that represents the gravitational force from the star on Planet A be represented?

○	A It should point from Planet A toward the star and will be longer because the star has more mass.
○	B It should point from Planet A toward the star and will be the same size because it is an equal and opposite force.
○	C It should point from Planet A toward the star and will be shorter because Planet A has less mass.
○	D There is no arrow to represent because gravitational force is only in one direction.

Lesson 1: Kinetic Energy

Type in each box to complete the graphic organizer.

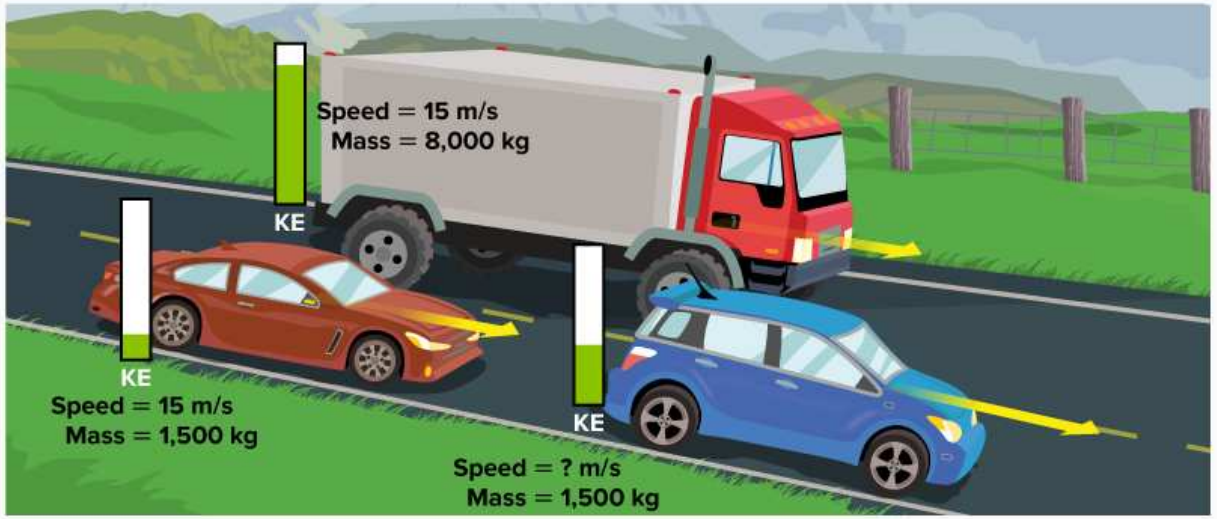


2. Aiden collected canned goods for a neighborhood service project. He pulled a plastic wagon behind him to put the items in. From the time Aiden began until he finished collecting, the mass of the wagon tripled. The walk back to Aiden's house was downhill and the speed of the wagon tripled. What happened to the kinetic energy when the mass tripled? What happened to the kinetic energy when the speed tripled?

○	A When the mass tripled, the kinetic energy increased by a factor of 3. When the speed tripled, the kinetic energy increased by a factor of 3.
○	B When the mass tripled, the kinetic energy increased by a factor of 3. When the speed tripled, the kinetic energy increased by a factor of 9.
○	C When the mass tripled, the kinetic energy increased by a factor of 9. When the speed tripled, the kinetic energy increased by a factor of 3.
○	D When the mass tripled, the kinetic energy increased by a factor of 9. When the speed tripled, the kinetic energy increased by a factor of 9.

Lesson 1: Kinetic Energy

The figure below shows mass and relative kinetic energy in energy bars for three vehicles.



3. What can you determine about the speed of the blue car?

○	A The blue car's speed is the same as the red car's speed.
○	B The blue car's speed is less than the truck's speed.
○	C The blue car's speed is equal to the truck's speed.
○	D The blue car's speed is greater than the red car's speed.

Use the diagram to answer the question.

Module : Mechanical energy

Lesson 2: Potential Energy

2. In the rack there are two basketballs. Which basketball has more energy?

○	A The top basketball has more energy because it is farther away from surface of Earth.
○	B The bottom basketball has more energy because it is closer to surface of Earth.
○	C Both basketballs have the same amount of energy because they have the same mass.
○	D Both basketballs have the same amount of energy because they are not moving.

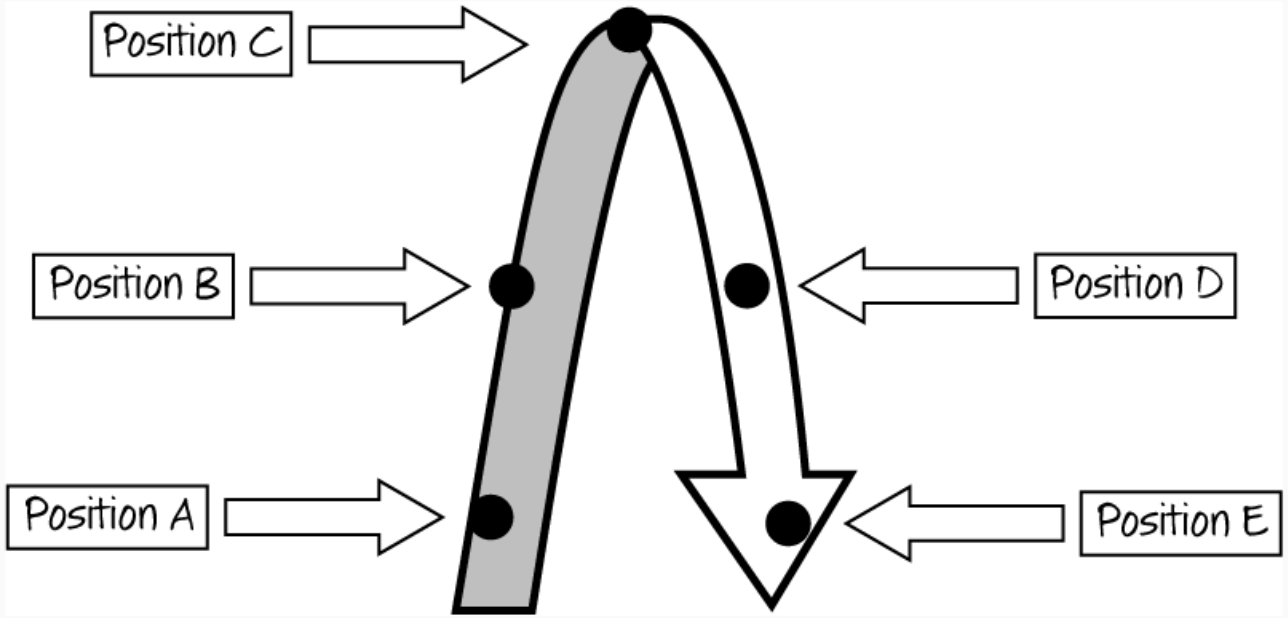
Lesson 2: Potential Energy

Use the diagram to answer the question.

3. In the rack there is a bike helmet and a pair of roller skates. The mass of the bike helmet is 550 g and the mass of a roller skate is 2,000 g. Which item has more energy?

○	A The bike helmet has more energy because it has less mass.
○	B The roller skate has more energy because it is has more mass.
○	C Both items have the same amount of energy because they are the same distance from the surface of Earth.
○	D Both items have the same amount of energy because they are not moving.

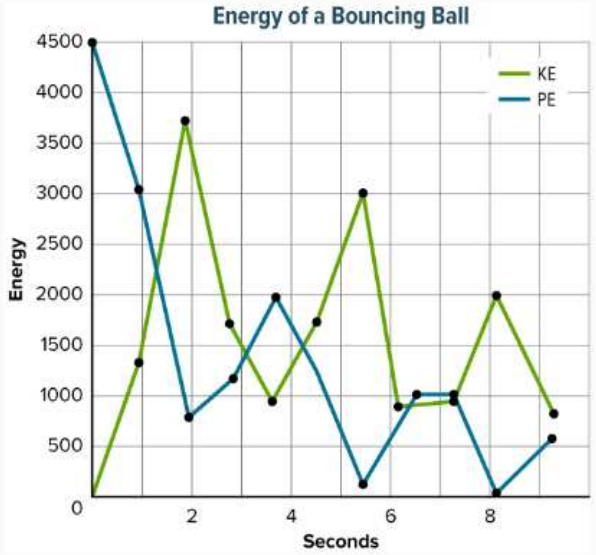
1. Describe how energy changes as a ball is thrown in the air. Compare the kinetic and potential energy of the ball at each position shown in the model of the system shown below.



Tap the drop-down list to select the relative amount of energy or how the energy changes at each position.

Position	Kinetic Energy	Potential Energy
A		
B		
C		
D		
E		

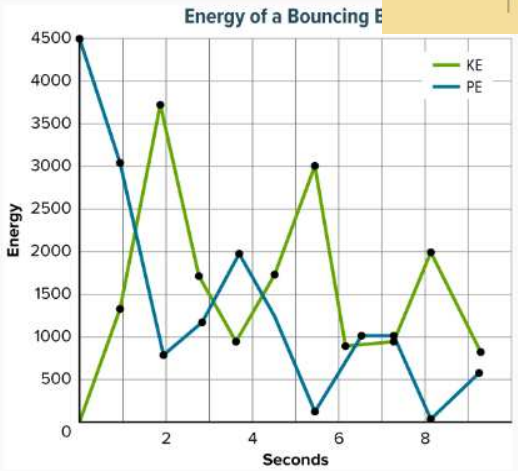
The graph shows the kinetic energy (KE) and potential energy (PE) of a bouncing ball over a period of 9 seconds. Use the graph to answer questions 2–3.



2. When does the ball have the most kinetic energy?

- ○ A At the start, because it is the highest off the ground.
- ○ B At the end, because it is moving fastest as it approaches the ground for the final bounce.
- ○ C At second 2, because it is moving fastest as it approaches the ground for the first bounce.
- ○ D At second 4, because it has reached its second highest bounce.

3. What statement best describes what happens to the total mechanical energy of the ball as it bounces?



○	A The total amount of energy remains the same because the law of conservation of energy says energy is conserved.
○	B The total amount of energy goes down because some energy becomes thermal energy due to the force of friction acting on the ball.
○	C The total amount of energy goes up because energy is gained from the force of gravity every time the ball bounces.
○	D The total amount of energy remains the same because work is being done on the ball by the force of gravity every time the ball bounces.