

Science Term 3 Exam - Human Population Growth



تم تحميل هذا الملف من موقع المناهج الإماراتية

موقع المناهج ← المناهج الإماراتية ← الصف السابع ← علوم ← الفصل الثالث ← ملفات متنوعة ← الملف

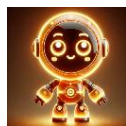
تاريخ إضافة الملف على موقع المناهج: 2026-06-02 20:57:16

ملفات اكتب للمعلم اكتب للطالب | اختبارات الكترونية | اختبارات | حلول | عروض بوربوينت | أوراق عمل
منهج انجليزي | ملخصات وتقارير | مذكرات وبنوك | الامتحان النهائي | للمدرس

المزيد من مادة
علوم:

إعداد: Tasneem

التواصل الاجتماعي بحسب الصف السابع



صفحة المناهج
الإماراتية على
فيسبوك

الرياضيات

اللغة الانجليزية

اللغة العربية

التربية الاسلامية

المواد على تلغرام

المزيد من الملفات بحسب الصف السابع والمادة علوم في الفصل الثالث

اختبار الوحدة الثالثة عشر حول المناخ وتغيراته غير محلول

1

اختبار الوحدة الثانية عشر غير محلول

2

اختبار الوحدة الحادية عشرة التاريخ الجيولوجي وطبقات الأرض غير محلول

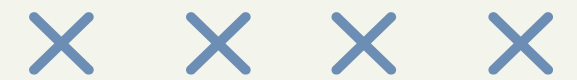
3

اختبار انسباير استنزاف الموارد غير محلول

4

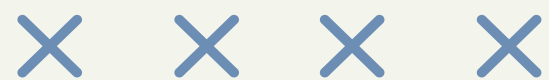
حلول اختبار انسباير استنزاف الموارد

5



Grade 7 Advanced

SCIENCE TERM 3 EXAM



Teacher Tasneem





HUMAN POPULATION GROWTH

What is carrying capacity?

is the largest number of individuals of a given species that Earth's resources can support and maintain for a long period of time.

In your own words, explain what **carrying capacity** means. Give **one real-life example** of a population that might be limited by its environment.

Carrying capacity is the maximum number of animals an ecosystem can support based on its resources, like a forest that can only feed a certain number of deer before running out of food.



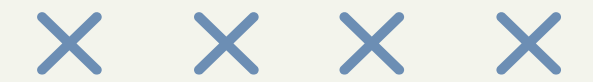


HUMAN POPULATION GROWTH

**An ecosystem has enough water and space for a maximum of 50 deer to live safely.
What is this maximum number called?**

- A. Living factor**
- B. Carrying capacity**
- C. Population growth**
- D. Ecosystem community**

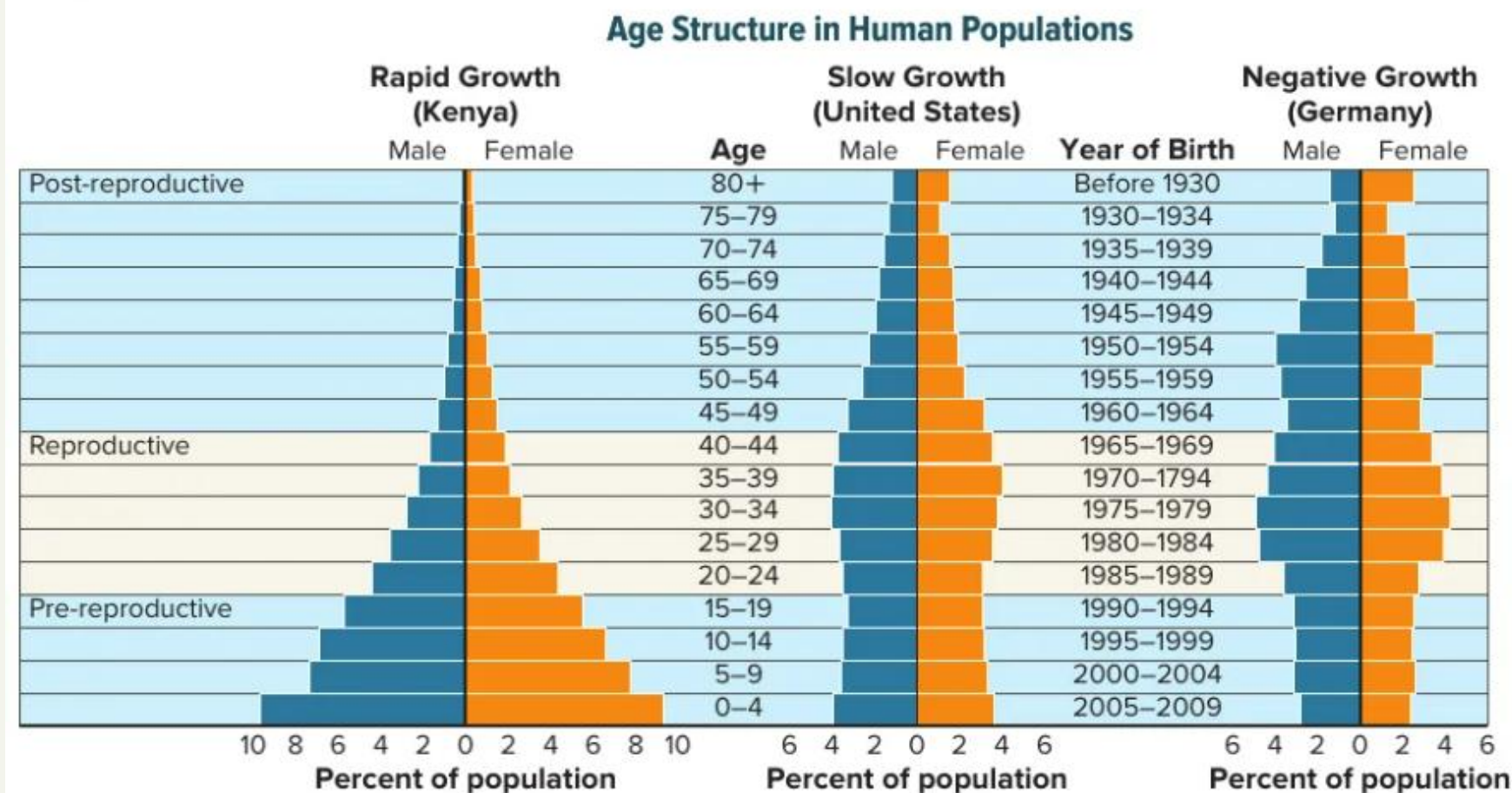




HUMAN POPULATION GROWTH

Increasing and Decreasing Populations

The diagram below shows the relative numbers of individuals in pre-reproductive, reproductive, and post-reproductive years for three countries: Kenya, the United States, and Germany.



How would you describe Kenya's growth?

Kenya is experiencing rapid population growth, which is typical for a developing country with a high birth rate and a young population.

Why does a chart like Germany's show negative growth?

Germany shows negative population growth because the percentage of young people in the pre-reproductive age group is smaller than the percentage of people in the reproductive and post-reproductive age groups. This indicates a low birth rate and an aging population, causing the population to decrease over time.

What can you determine about population growth rates from observing the top halves of the three charts?

Observing the top halves of the charts tells you about the older population, showing how many people live to old age and reflecting the life expectancy of each country.





HUMAN POPULATION GROWTH

If a country's population chart is shaped like a perfect triangle with a very wide base, what does this tell you about its growth?

- A. The population is decreasing and shrinking.**
- B. The population is completely stable and not changing.**
- C. The population is growing very rapidly because there are many babies.**
- D. The country has a very low birth rate.**





PEOPLE AND THE ENVIRONMENT

Outline an **argument** for how deforestation impacts Earth's **systems**. What are the short-term consequences of clearing land? Using your knowledge of the **cause-and-effect** relationships associated with deforestation, predict the long-term consequences of clearing entire forests.

In the short term, deforestation destroys animal habitats and causes soil erosion, while in the long term, it causes severe climate change and permanent loss of biodiversity.

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How does deforestation impact Earth's systems? Record your evidence (B) in the chart at the beginning of the lesson.

Deforestation impacts Earth's systems by destroying animal habitats, causing soil erosion, and increasing greenhouse gases in the atmosphere.

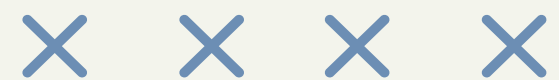




PEOPLE AND THE ENVIRONMENT

How does widespread deforestation directly affect the quality of Earth's atmosphere and the air we breathe?

- A. It increases the amount of oxygen in the air because there is more sunlight.**
- B. It decreases carbon dioxide levels and makes the air much cleaner.**
- C. It increases greenhouse gases like carbon dioxide because fewer trees are absorbing them.**
- D. It stops all wind and air movement in the atmosphere completely.**





PEOPLE AND THE ENVIRONMENT

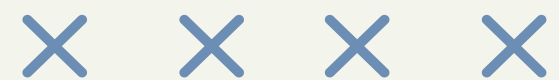
How can the ecological footprint **model** be used to predict how changes in resource consumption might **effect** Earth's **systems**?

The ecological footprint model shows that if humans use too many natural resources, it will strain Earth's systems and cause major environmental damage.

What is an 'ecological footprint' used to measure?

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An ecological footprint is used to measure how much land and water resources humans use up compared to how fast Earth can clean and replace them.



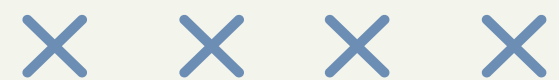


PEOPLE AND THE ENVIRONMENT

What is an 'ecological footprint' used to measure?

select two

- A. The actual size of a human's foot.**
- B. The total number of trees planted on Earth.**
- C. How fast animals can run away from cities.**
- D. How much natural resources humans use up compared to how fast Earth can replace them.**





EARTH'S MOTION AROUND THE SUN

Why does the view of the sky change over time?

Have you ever looked up at the sky on a clear, dark night and seen stars? If you look at a clear night sky for a long time, what do you notice about the stars?



INVESTIGATION

Star Gazing

 **GO ONLINE** Watch the video *Star Gazing*.

Record your observations about the stars. Describe what you think is happening. Include drawings and illustrations to help explain your observations.

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The view of the night sky changes over time because Earth is constantly rotating on its axis and revolving around the Sun.





EARTH'S MOTION AROUND THE SUN

When you look up at a clear night sky for a long time, why does the position and view of the stars seem to change?

- A. Because the stars themselves are flying rapidly across the universe.**
- B. Because Earth is constantly rotating on its axis and moving around the Sun.**
- C. Because the clouds are pushing the stars out of the way.**
- D. Because the Moon's gravity drags the stars across the sky.**





EARTH'S MOTION AROUND THE SUN

A student notices that the Moon's position in the sky at **9:00 PM** is very different from its position at **midnight**.

- Why does the Moon appear to have moved across the sky?
- Is the Moon actually moving, or is something else causing this? Explain your answer.

The Moon appears to move across the sky because Earth is constantly rotating on its axis, not because the Moon is racing across the sky over those few hours.





EARTH'S MOTION AROUND THE SUN

A student notices that the Moon's position in the sky at 9:00 PM is very different from its position at midnight. What causes this?

- A. The Moon is racing incredibly fast around Earth over those few hours.**
- B. Earth's rotation on its axis makes the Moon appear to move.**
- C. The Moon turns its bright side away from Earth at midnight.**
- D. The Sun's gravity suddenly pushes the Moon out of the way.**





EARTH'S MOTION AROUND THE SUN

Why do Earth's Seasons change as Earth orbits the Sun?

You might think that summer occurs in the northern hemisphere when Earth is closest to the Sun, and winter occurs in the southern hemisphere when Earth is farthest from the Sun. However, seasonal changes do not depend on Earth's distance from the Sun. In fact, Earth is closest to the Sun in January! Instead, it is the tilt of Earth's rotation axis, combined with Earth's motion around the Sun, that causes the seasons to change.

Earth's seasons change because of the tilt of its rotation axis combined with its motion around the Sun, not because of its distance from the Sun.





EARTH'S MOTION AROUND THE SUN

Why do Earth's seasons change as it orbits the Sun?

- A. Because Earth physically moves closer to the Sun in the summer and farther away in the winter.**
- B. Because of the tilt of Earth's rotation axis combined with its motion around the Sun.**
- C. Because the Sun gets hotter during certain months of the year.**
- D. Because the Moon blocks the sunlight during the winter months.**



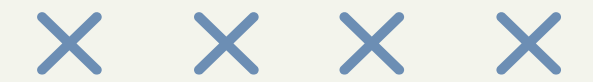


EARTH'S MOTION AROUND THE SUN

How does the varying amount of the Sun's solar energy **cause** the seasons? What **effects** does the tilt of Earth's rotation axis have on the seasons?

The tilt of Earth's rotation axis causes different parts of Earth to receive varying amounts of direct solar energy throughout the year, creating summer when a hemisphere tilts toward the Sun and winter when it tilts away.





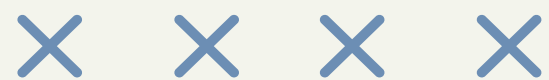
LUNAR PHASES

Explain how the Moon can be rotating if the same side of the Moon is always facing Earth.

The Moon rotates on its axis at the exact same speed that it orbits Earth, which keeps the same side always facing us.

How does the Moon move?

The Moon rotates on its own axis while simultaneously revolving in an orbit around Earth, taking about 27.3 days to complete both movements.





LUNAR PHASES



The Moon makes one revolution around Earth in the same amount of time that it makes one rotation on its axis.

- ☒ True
☐ False

This is a great question because it seems contradictory at first.

If the Moon did not rotate on its axis, we would eventually see all sides of it from Earth as it orbited us.

Imagine carrying a photo frame while walking in a circle around a table:

If you always keep the photo facing the table, you must slowly turn yourself as you walk.

If you don't turn, different sides of the photo will face the table during the walk.

"The Moon makes one revolution around the Earth in the same amount of time that moon makes one rotation on its axis."

Revolution = Moon moving around Earth.

Rotation = Moon spinning on its own axis.

Both take about 27.3 days.

Because the Moon rotates exactly once during each orbit, the same side always faces Earth. This phenomenon is called tidal locking.

A simple way to think about it:

No rotation: We would see all sides of the Moon over a month.

One rotation per orbit: We keep seeing nearly the same side all the time.

So the reason the same side always faces Earth is not because the Moon doesn't rotate—it's because it rotates at exactly the right rate to keep the same face pointed toward us.



LUNAR PHASES



Q=The Moon makes one revolution around Earth in the same amount of time that Earth makes one rotation on its axis.

- ☐ True
- ☒ False

**Moon makes one Revolution in 27.3 days
Earth makes one Rotation in 1 day.**

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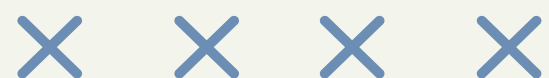
ECLIPSES

Why aren't there eclipses every month?

A solar eclipse can only happen during the new moon phase. Lunar eclipses can only occur during a full moon. You have learned that each of those phases occurs every 29.5 days. Why don't we have eclipses every 29.5 days? The Moon doesn't travel around Earth in the exact same flat path that Earth uses to go around the Sun. Because of that tilt, the Sun, Earth, and Moon don't line up most of the time, only sometimes do they perfectly align.

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Eclipses do not happen every month because the Moon's orbit is tilted compared to Earth's orbit, causing the Sun, Earth, and Moon to miss a perfect alignment most of the time.



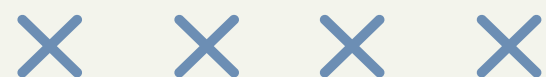


ECLIPSES

Why don't solar eclipses occur every new moon?

- ☐ **A)** The Moon's orbit around Earth and Earth's orbit around the Sun are not the same speed, so the three bodies only line up during the full moon.
- ☒ **B)** The Moon's orbit around Earth and Earth's orbit around the Sun are not in the same plane, so the three bodies only line up occasionally.
- ☐ **C)** The Moon's orbit around the Sun and Earth's orbit around the Sun are not in the same plane, so the three bodies only line up occasionally.
- ☐ **D)** The Moon's orbit around Earth and the Sun's orbit around Earth are not in the same plane, so the three bodies only line up occasionally.

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GRAVITY AND THE UNIVERSE

How are galaxies classified?

Spiral, elliptical, and irregular are three types of **Galaxies** in the universe.





GRAVITY AND THE UNIVERSE

What is gravity?

Gravity is an attractive force that pulls all objects with mass toward each other.

Teacher Tasneem What factors affect gravitational force?

The two factors that affect gravitational force are the masses of the objects and the distance between them.





THE SOLAR SYSTEM

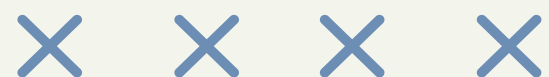
Graphing Characteristics

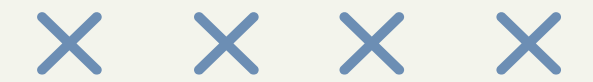
Scientists collect and analyze data and draw conclusions based on data. Scientists know that some properties of the planets are related. Graphing data makes the relationships easy to identify. Graphing allows different types of data be to seen in relation to one another.

Scientists use different units of measurements for distance within the solar system. One of those units is the astronomical unit (AU). One AU is equal to the average distance between the Sun and Earth, about 149,600,000 km.

Planet	Average Distance from the Sun (AU)	Orbital Period (yr)	Radius of Planet (km)
Mercury	0.39	0.24	2,440
Venus	0.72	0.62	6,051
Earth	1.00	1.0	6,378
Mars	1.52	1.9	3,397
Jupiter	5.20	11.9	71,492
Saturn	9.58	29.4	60,268
Uranus	19.2	84.0	25,559
Neptune	30.1	164.0	24,764

An astronomical unit (AU) is a unit of measurement equal to the average distance between the Sun and Earth, which is about 149,600,000 kilometers.





THE SOLAR SYSTEM

Graphing Characteristics

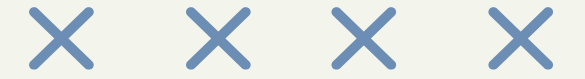
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Q-Arrange the planets as per their size in increasing order.

A-Mercury, Mars, Venus, earth, Neptune, Uranus, Saturn, Jupiter



THE SOLAR SYSTEM

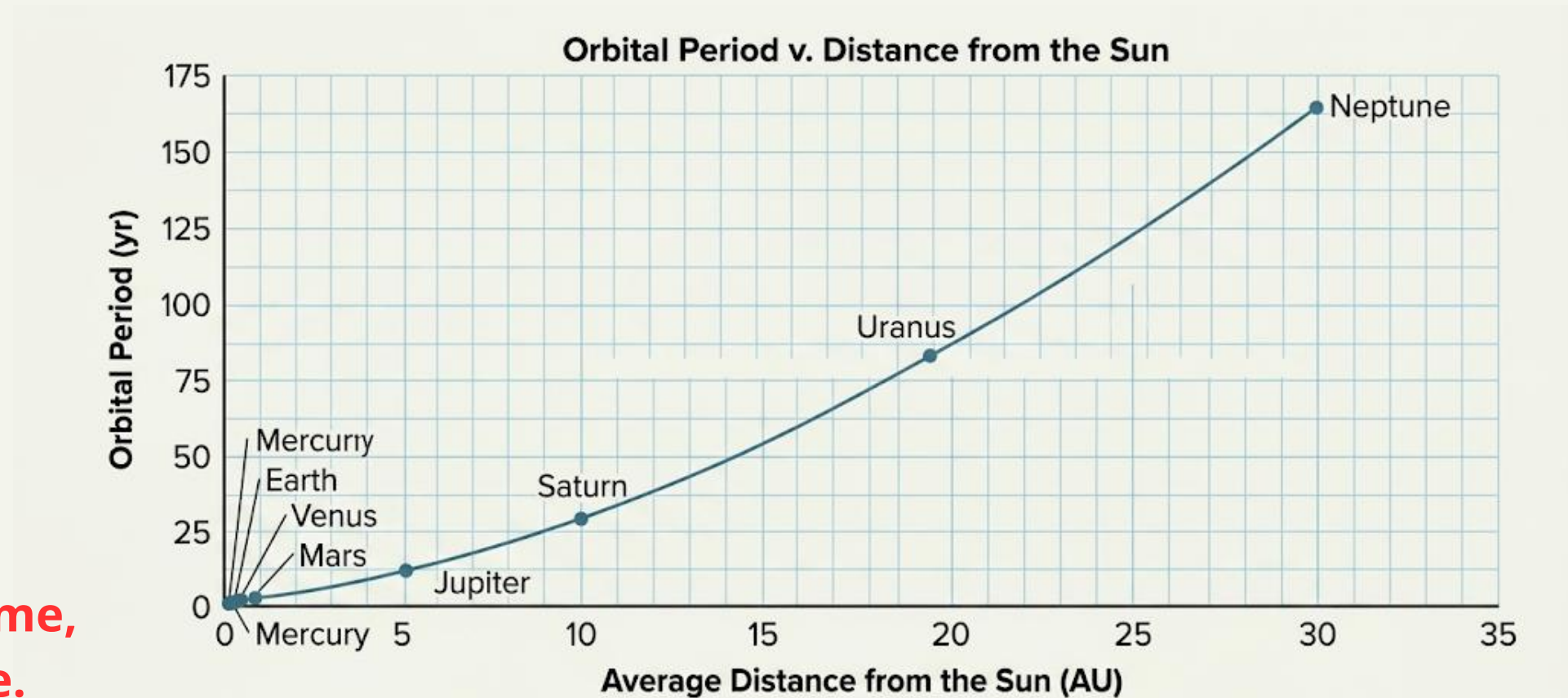
2. Use the data in the table to plot a line graph showing orbital period versus average distance from the Sun. On the x-axis, plot the planet's distance from the Sun. On the y-axis, plot the planet's orbital period. Make sure the range of each axis is suitable for the data to be plotted and clearly label each planet's data point.

Label the x-axis with distance, the y-axis with time, and plot each planet from Mercury to Neptune.

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3. Examine the *Orbital Period v. Distance from the Sun* graph.

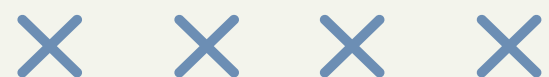
Describe any relationship you observe between a planet's distance from the Sun and its orbital period.

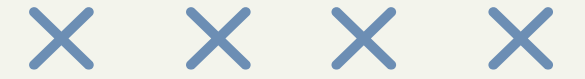


Scientists use different units of measure between a planet's distance from the Sun and its orbital period.

Describe any relationship you observe between a planet's distance from the Sun and its orbital period.
As a planet's average distance from the Sun increases, its orbital period also increases.

As a planet's distance from the Sun increases, its orbital period also increases.





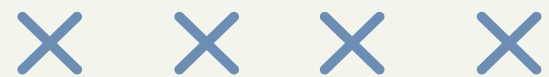
THE SOLAR SYSTEM

Mercury is the closest planet to the Sun, while Neptune is the farthest.

- Which planet do you think takes longer to complete one full orbit around the Sun? **Question 1: Neptune takes longer to complete one full orbit around the Sun.**
- Why do you think distance from the Sun affects how long a planet takes to orbit?

Question 2: Distance affects orbit time because a planet farther from the Sun has a longer path to travel and is pulled by weaker gravity, causing it to move slower.

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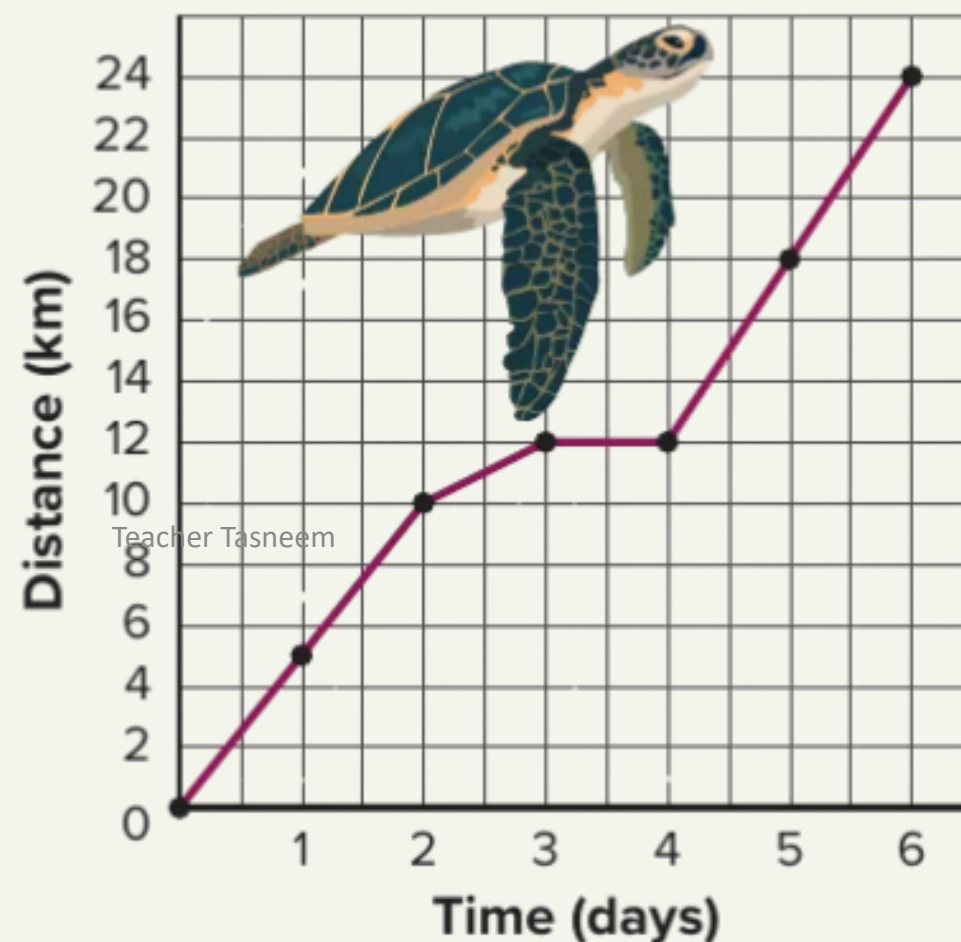




POSITION AND MOTION

Analyze the data on the plot below. Determine the speed of the hawksbill sea turtle during each interval listed below.

**Hawksbill Sea Turtle
Tracking Data**

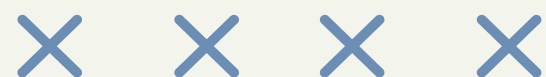


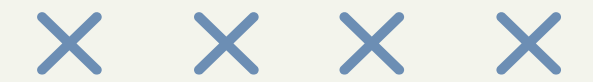
Day 0 to day 2: 5 km/day

Day 2 to day 3: 2 km/day

Day 3 to day 4: 0 km/day

Day 4 to day 6: 6 km/day





POSITION AND MOTION

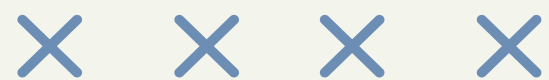
A distance-time graph line becomes steeper over time. What does this mean?

When a distance-time graph line becomes steeper over time, it means that the object is speeding up or accelerating.

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Knowing an object's position requires which of the following?

- ☐ **A)** speed
- ☐ **B)** time
- ☐ **C)** displacement
- ☒ **D)** reference point





POSITION AND MOTION

Start from Here

- 1. Put a sticky note at the 50-cm mark of a meterstick. This is your reference point.
- 2. Place a small object at the 40-cm mark. It is 10 cm in the negative direction from the reference point.

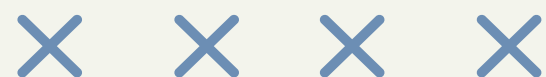
3. Continue moving the object and recording its distance, its reference direction, and its position to complete the table below.

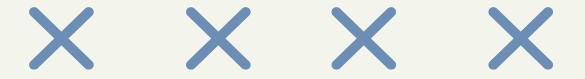
Position of Object		
Distance (cm)	Reference Direction	Position (cm)
10 cm	negative	40 cm
40 cm	positive	90 cm
15 cm	positive	65 cm
25 cm	positive	75 cm
20 cm	negative	30 cm

4. How would the data in the table change if the positions were the same, but the reference point was at the 40-cm mark? Complete the table below with the new information.

Position of Object		
Distance (cm)	Reference Direction	Position (cm)
0 cm	none	40 cm
50 cm	positive	90 cm
25 cm	positive	65 cm
35 cm	positive	75 cm
10 cm	negative	30 cm

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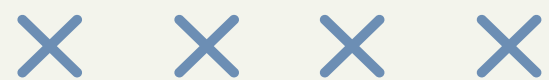
FORCE AND ACCELERATION

How does friction affect motion?

Friction affects motion by acting as a resisting force that opposes the movement of an object, causing it to slow down or come to a complete stop.

If you **cause** the surfaces between two touching objects to change, how will the friction be affected? Make a claim. Support your **explanation** with evidence and logical connections.

Changing the touching surfaces will alter the friction because making the surfaces rougher increases resistance and friction, while making them smoother reduces resistance and lowers friction.





FORCE AND ACCELERATION

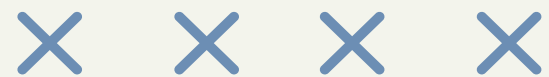
How can forces act on an object that is not changing its motion?

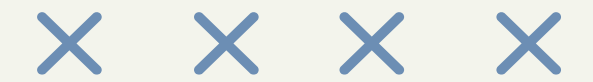
Forces can act on an object without changing its motion if the forces are balanced, meaning they are equal in size and opposite in direction so they cancel each other out.

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Forces that are equal in size but opposite in direction are called unbalanced forces.

-
- ☐ True
☒ False





FORCE AND ACCELERATION

MATH Connection

In the PhET interactive simulation, a force of 100 N is applied to the wrapped present, giving it an acceleration of 2 m/s². What is the mass of the object?

Acceleration Equation

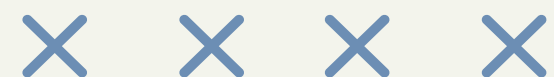
$$\text{acceleration (in m/s}^2\text{)} = \frac{\text{force (in N)}}{\text{mass (in kg)}}$$
$$a = \frac{F}{m}$$

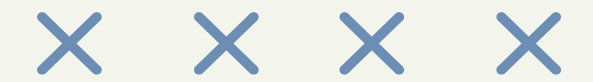
The mass of the object is 50 kg.

What is the acceleration when a force of 2.0 N is applied to a ball that has a mass of 0.60 kg?

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The acceleration of the ball is 3.33 m/s².





FORCE PAIRS

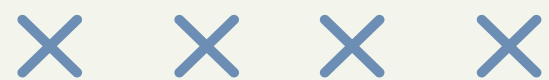
Your friend stated that action and reaction force pairs do not change motion because they cancel one another out. Explain why your friend is incorrect, using an everyday example to clarify your explanation. In your response, identify which of Newton's laws of motion applies to action and reaction forces. Contrast action and reaction force pairs and balanced forces.

My friend is wrong because Newton's third law forces act on two different objects so they cannot cancel out, unlike balanced forces which act on the same object

When a swimmer pushes **backward** against the water with their hands, they move **forward** through the pool.

- A friend says *"action and reaction forces always cancel, so nothing should ever move."* Do you agree or disagree? Explain why using the swimmer as your example.

I disagree because the swimmer pushes the water backward (action) and the water pushes the swimmer forward (reaction); since these forces act on different objects, they do not cancel out.

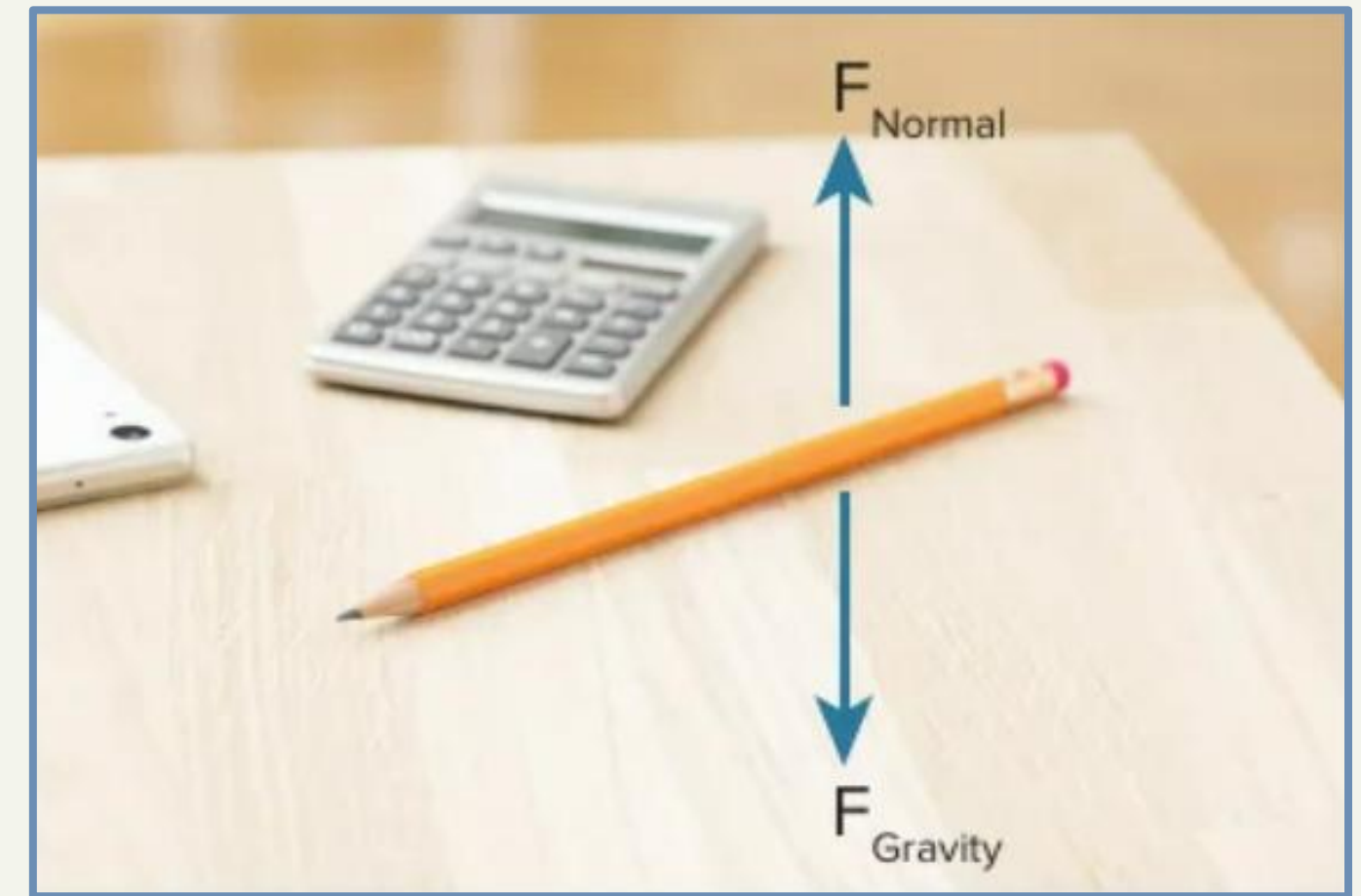




GRAVITATIONAL FORCE

Normal Force A pencil sitting on a table is acted on by gravity. This force in the downward direction is equal to its weight. Because gravity is acting on the pencil, the pencil is pushing down on the table. Recall, Newton's third law of motion states that for every force there is an opposite equal force. The table pushes up on the pencil with an equal but opposite force. The force of the table on the pencil is referred to as the normal force.

Teacher Tasneem



Normal Force: The upward push from a surface (like a table) that balances the downward pull of gravity on an object.





GRAVITATIONAL FORCE

A pencil is sitting still on a table.

- Name the **two forces** acting on the pencil.
- In which direction does each force act?

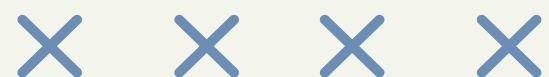
The two forces acting on the pencil are the force of gravity, which acts in the downward direction, and the normal force from the table, which acts in the upward direction.

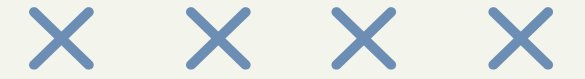
A boy is standing still on the floor. Gravity is pulling him **downward**.

- What force is stopping him from falling through the floor?

What is the name of this upward force?

The upward force that stops the boy from falling through the floor is called the normal force.

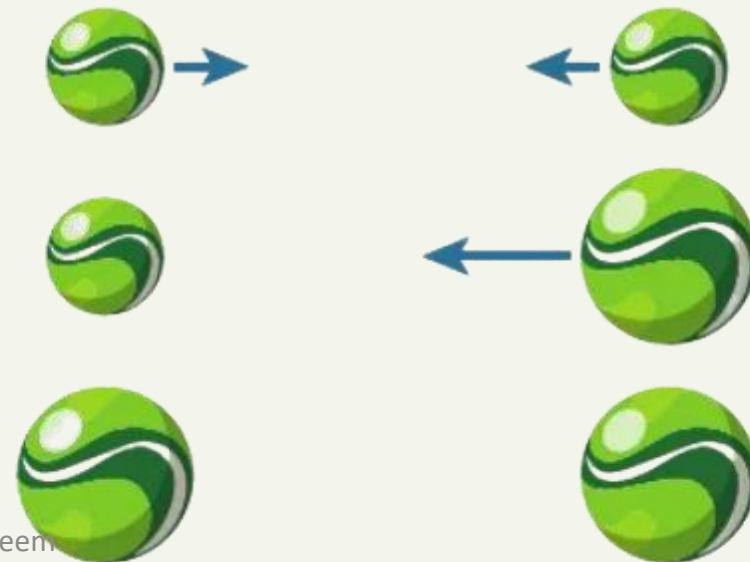




GRAVITATIONAL FORCE

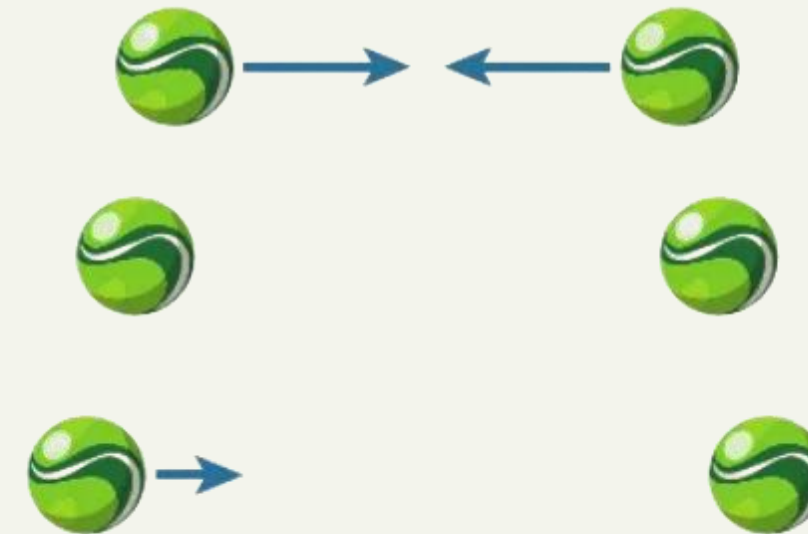
On the figure below, add arrows to **model** the size and direction of the force of gravity for the missing forces in each **system** below.

Change in Mass

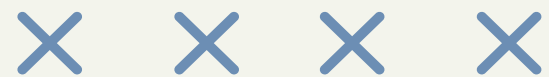


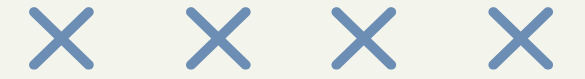
Teacher Tasneem

Change in Distance



Gravitational force differs based on two things. It increases with increasing **mass**. It decreases with increasing **distance**.





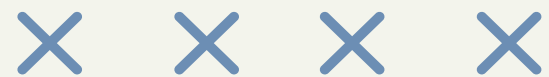
ECLIPSES

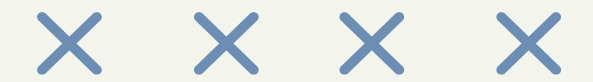
What is a lunar eclipse?

A lunar eclipse is an event that occurs when the Earth moves directly between the Sun and the Moon, casting Earth's shadow across the Moon's surface.

Teacher Tasneem
What is necessary for a lunar eclipse to take place? Record your evidence (B) in the chart at the beginning of the lesson.

For a lunar eclipse to happen, the Sun, Earth, and Moon must line up perfectly in a straight line during a full moon phase.



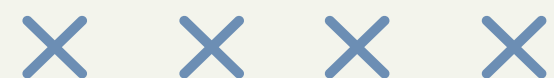
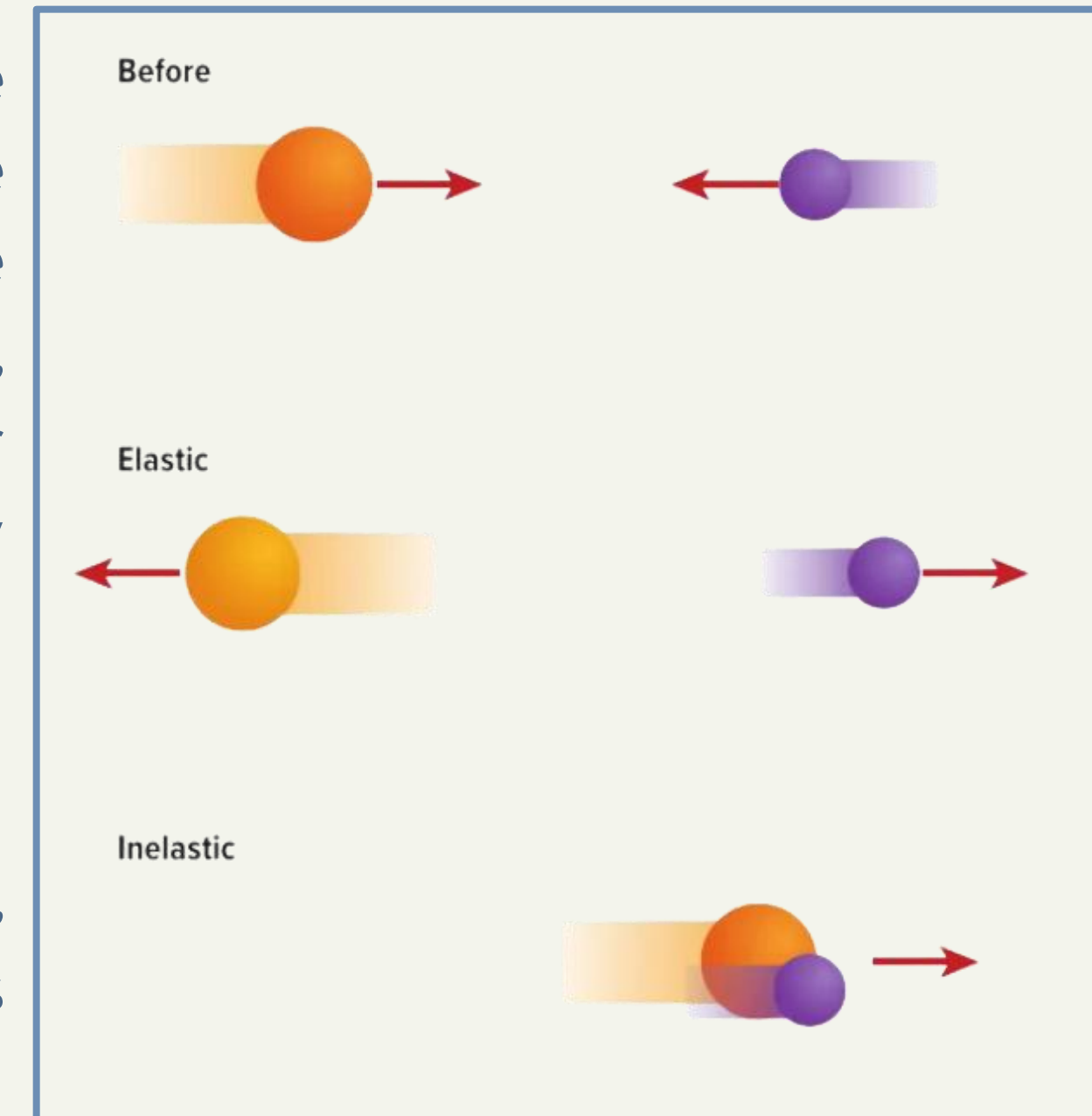


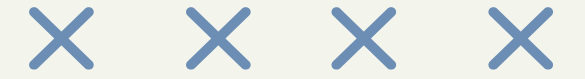
FORCE PAIRS

Collision Forces When one object collides with another object, a force is applied to the second object. The second object accelerates in the direction of the force. However, because of Newton's third law, a force is also applied to the first object. As you saw in the Lab Bounce Back, when the balls collided, they accelerated in the opposite direction or slowed down. If the mass of the balls was exactly the same, one may have even stopped moving.

Teacher Tasneem

Types of Collisions Objects collide with each other in different ways. When colliding objects bounce off each other, it is an elastic collision. If objects collide and stick together, such as when one football player tackles another, the collision is inelastic.

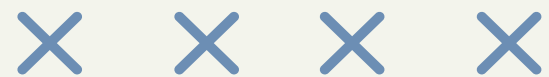




FORCE PAIRS

3. Why do colliding objects slow down, stop, or bounce back in opposite directions?

- A) Because of Newton's third law of motion.**
- B) Because gravity pulls them sideways.**
- C) Because they have no mass.**
- D) Because they are balanced forces.**

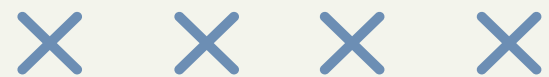




FORCE PAIRS

What is the difference between an elastic and an inelastic collision?

The difference is that in an elastic collision, the colliding objects bounce off each other, whereas in an inelastic collision, the objects stick together after impact.

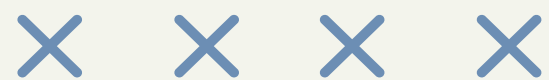
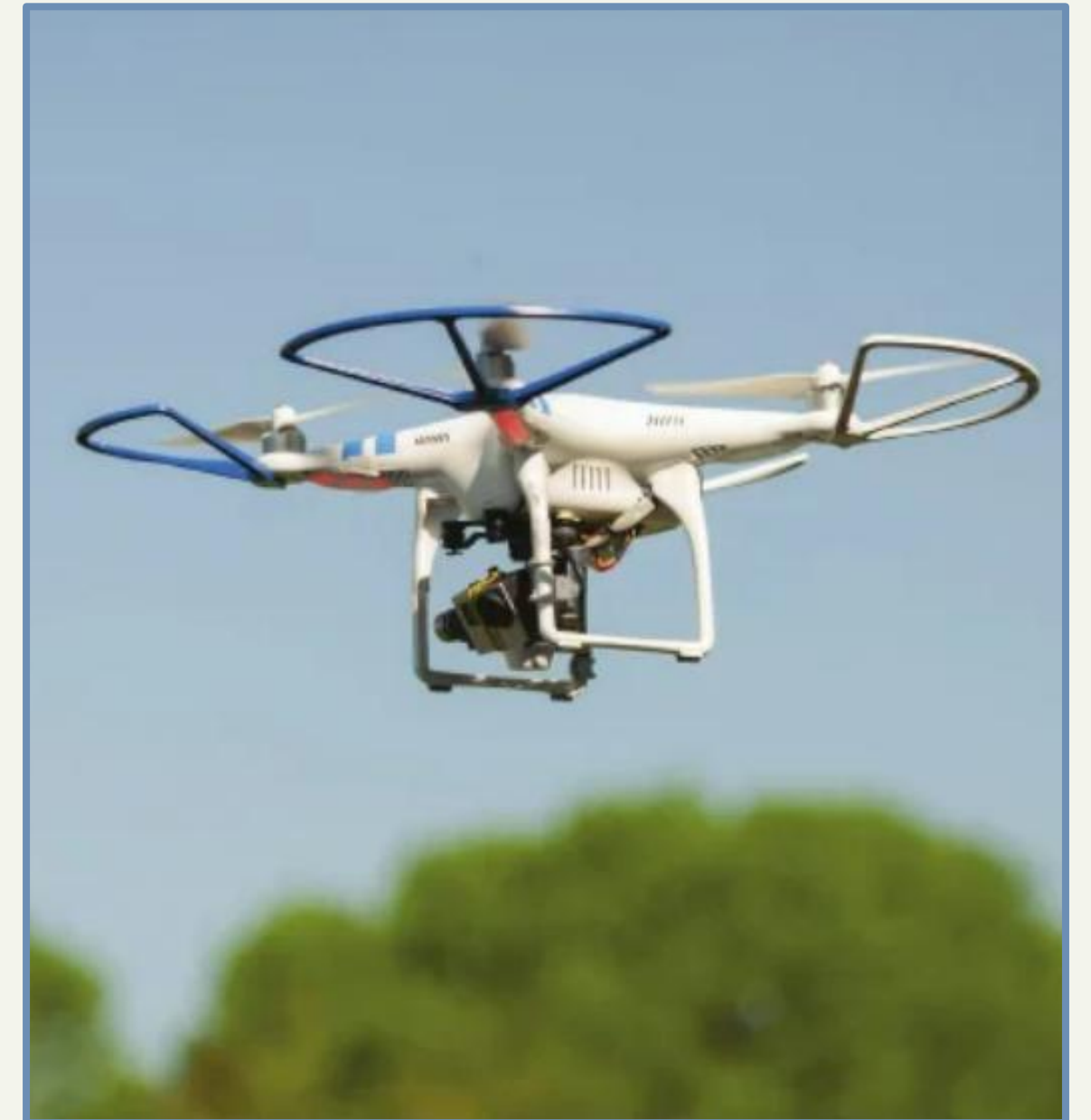


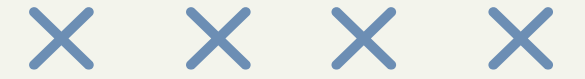


FORCE PAIRS

Opposing Forces In the activity at the beginning of the lesson, you moved because the wall exerted a force on you. This force exists because you were pushing against the wall. If you push only a little amount against the wall, the wall will push only a little against you. If you push against the wall with a lot of force, the wall will push against you a lot. Newton also noticed this phenomenon and described it by saying that for every action, there is an equal and opposite reaction. It is now known as the third law of motion.

Newton's third law of motion states that when an object applies a force on another object, the second object applies a force of the same strength on the first object, but the force is in the opposite direction. This idea explains how helicopters and drones work. When a drone pushes the air down, the air pushes the drone up. Air particles may be small and not very massive, but pushing a large amount of air can lead to a large push back.

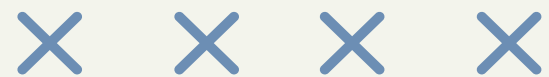


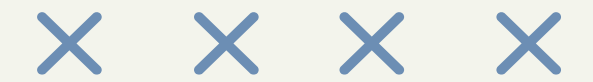


FORCE PAIRS

When a drone is flying, its spinning blades push the air downward. What is the reaction force that allows the drone to stay in the air?

- A) The drone pushes the air upward.**
- B) Gravity pulls the drone downward with more force.**
- C) The air pushes the drone upward with an equal force.**
- D) The blades stop spinning to balance the forces.**





FORCE PAIRS

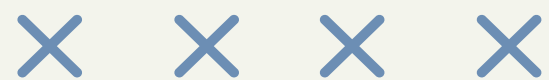
What **patterns** exist between all forces that you apply to objects or **systems** of objects?

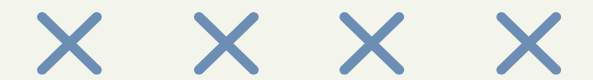
Forces always come in equal and opposite pairs.

Teacher Tasneem

How do the forces that are present when you push on an object explain what happens when the airboat pushes on the air? Record your evidence (A) in the chart at the beginning of the lesson.

The airboat pushes the air backward, so the air pushes the airboat forward.





FORCE PAIRS

With a partner, take turns sitting on a skateboard and try pushing your partner away. Record your observations in the space below.

Now sit on a skateboard and push against a wall. Record your observations below.

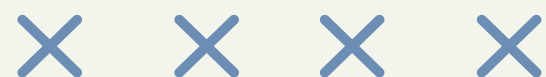
A. What evidence have you discovered to explain the forces present when you push an object?

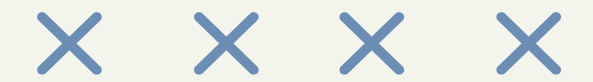
When you push your partner or a wall, you immediately roll backward in the opposite direction, which proves that forces always work in pairs.

Teacher Tasneem

B. What evidence have you discovered to explain how to show Newton's third law?

Pushing against a solid wall while sitting on a skateboard shows Newton's third law because the wall pushes back on you with an equal and opposite force, causing you to move away from it.





GRAVITATIONAL FORCE

MATH Connection

For each of the systems below, calculate the weight of the object. Then, apply scientific understanding to draw a free-body diagram of the system.

A. A book with a mass of 2 kg is at rest on top of a desk.

The weight of the book is calculated as \$19.6N acting downward, which is perfectly balanced by an upward normal force of \$19.6 N from the desk.

Teacher Tasneem

A pencil with a mass of 0.0075 kg is falling toward the floor.

The weight of the falling pencil is calculated as \$0.0735N acting straight down toward the floor.

Formula Used— $\text{Weight(Newton)} = \text{Mass(kilogram)} * 9.8$



KINETIC ENERGY

Which would increase the kinetic energy of a wagon? Select all that apply.

- ☒ **A)** Add mass to the wagon.
- ☐ **B)** Decrease the mass of the wagon.
- ☒ **C)** Increase the speed of the wagon.
- ☐ **D)** Decrease the speed of the wagon.

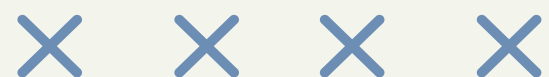
Which indicates what happens to the kinetic energy of an object when its speed increases?

- ☐ **A)** The kinetic energy does not change.
- ☐ **B)** The kinetic energy increases by the same factor as the speed increase.
- ☒ **C)** The kinetic energy increases by the square of the same factor as the speed increase.
- ☐ **D)** The kinetic energy decreases by the same factor as the speed increase.

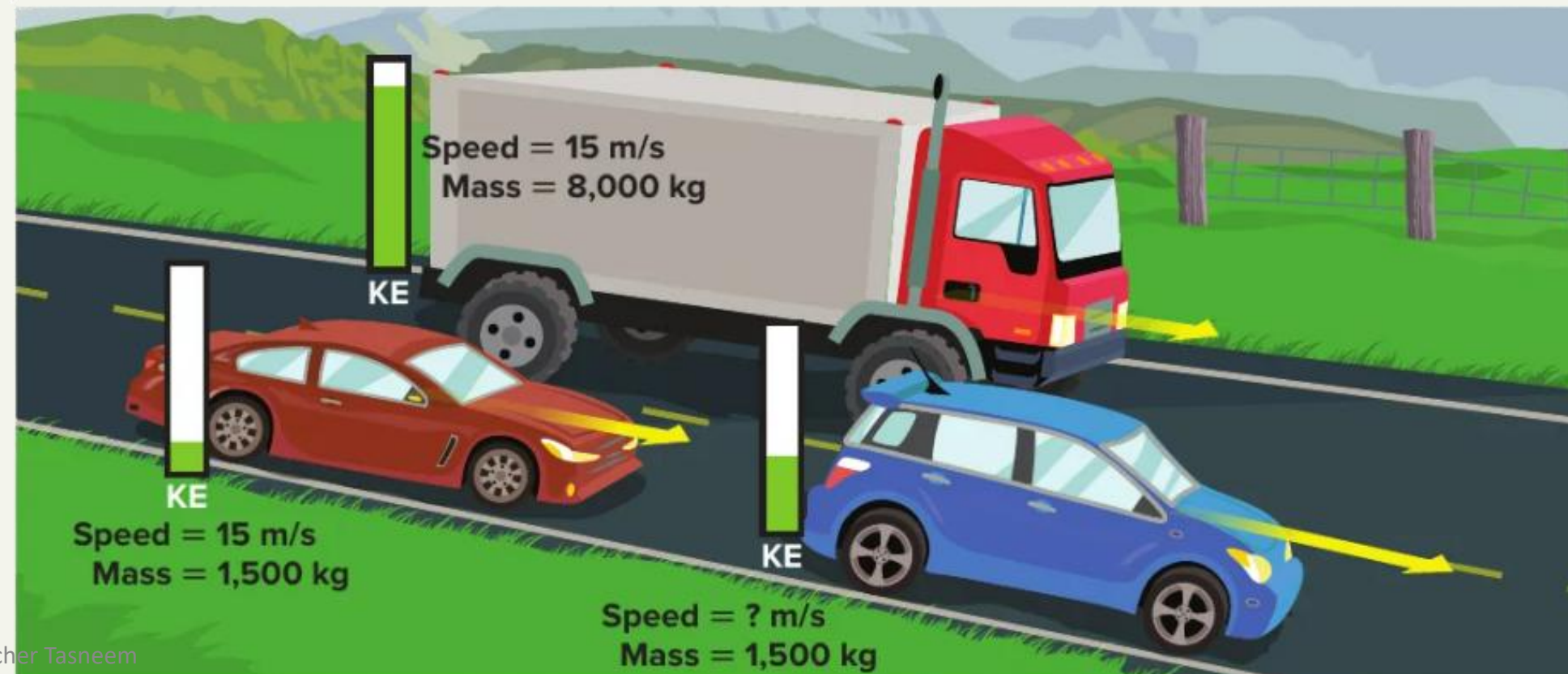
Teacher Tasneem

Which indicates what happens to the kinetic energy when the mass of a moving object increases?

- ☐ **A)** The kinetic energy does not change.
- ☒ **B)** The kinetic energy increases by the same factor as the mass increase.
- ☐ **C)** The kinetic energy increases by the square of the same factor as the mass increase.
- ☐ **D)** The kinetic energy decreases by the same factor as the mass increase.



KINETIC ENERGY



Teacher Tasneem

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.



GOOD LUCK!

Teacher Tasneem

