PONY

سلسلة كتب الأستاذ

SCIENCE

March Revision



5th

Junior

Second Term

Prepared by:

Amira Ahmed

Pony Revision on Concept 3.2

Water as a Valuable Natural Resource

Fifth, Sixth, and Seventh Weeks

1 Choose the correct answer:

1. Ways to protect natural resources include ..... .
   - a. pollution
   - b. deforestation
   - **c. sustainability**
   - d. overfishing

2. A watershed is an area where water collects from ..... and flows in one direction.
   - a. one source
   - b. rain only
   - **c. different sources**
   - d. lakes only

3. Paper is made from ..... .
   - a. iron
   - b. plastic
   - c. copper
   - **d. tree**

4. Overfishing of small fish in river water results in ..... .
   - **a. fish scarcity**
   - b. resource recovery
   - c. lack of fish quality
   - d. preserving fish

5. Ways to preserve the environment include ..... .
   - a. deforestation
   - b. removal of natural resources
   - **c. rationalizing the consumption of natural resources**
   - d. excessive use of natural resources

6. The ..... is from the factors affecting sustainability.
   - a. climate
   - b. temperature
   - c. rain
   - **d. population increase**

7. ..... causes soil pollution and the death of plants and animals.
   - **a. Burning coal**
   - b. Rain
   - c. Planting trees
   - d. Blowing wind

8. A ..... is an area of land where all the water that flows across it drains downhill to a common location in one direction.
   - a. lake
   - **b. watershed**
   - c. pond
   - d. stream

9. Which of the following behaviors leads to wasting water?
   - a. Reducing bath time
   - b. Drip irrigation of gardens
   - **c. Excessive irrigation of gardens**
   - d. Closing the water tap while brushing your teeth

10. ..... is the main engine of the water cycle in nature.

a. Human
b. Solar energy
c. Rain
d. Water treatment plant

11. All of the following bodies of water are freshwater, except ..... .

a. rivers
b. rain
c. seas
d. groundwater

12. All of the following are duties of wastewater treatment engineers, except ..... .

a. monitoring the water treatment process
b. removing harmful substances from water
c. designing bridges to facilitate transportation from cities
d. designing ways to protect a community from floods

13. All of the following are ways to conserve water, except ..... .

a. repairing leaky water tanks
b. turning off the tap while washing clothes
c. continuously using the shower for bathing
d. using small amounts of water when cleaning cars

14. Which of the following could lead to the destruction of renewable resources?

a. Dams construction
b. Deforestation
c. Resources protection
d. Resources sustainability

15. The most important sources of salt water are ..... .

a. seas and oceans
b. rivers and groundwater
c. rain and seas
d. lakes and rivers

16. We use ..... to purify unclean water.

a. desalination
b. natural reserves
c. solar panels
d. filters

17. Polluting of fresh water may cause ..... of animals.

a. diversity
b. growth
c. extinction
d. increasing

18. Which of the following behaviors leads to water waste?
    - a. Reducing bathing time
    - b. Irrigating gardens with drip irrigation
    - **c. Overwatering gardens**
    - d. Turning off the tap while brushing your teeth

19. To conserve renewable resources, we must ..... .
    - a. pollute water
    - b. pollute soil
    - c. pollute air
    - **d. use resources sustainably**

2 Put (✓) or (✗):

1. Hunting is allowed in natural reserves. **(✗)**
2. Downstream water increases when upstream water decreases. **(✗)**
3. Clothes are made from plants and animals products. **(✓)**
4. Deforestation destroys the natural habitats of many living organisms. **(✓)**
5. Overfishing helps increase the number of fish in any body of water. **(✗)**
6. Dumping factories waste in the water causes water pollution and makes it unfit for drinking. **(✓)**
7. Water is a recyclable resource. **(✓)**
8. Rivers are among the largest saltwater bodies. **(✗)**
9. Dams are used to filter polluted water for reuse. **(✗)**
10. Overconsumption of natural resources helps conserve them. **(✗)**
11. Polluted water can be converted into clean water using water filters. **(✓)**

3 Correct the underlined words:

1. When building a factory close to a body of water, this **protects** the body. (**pollutes**)
2. **Estuaries** are tributaries that flow into bigger rivers, which lead to even bigger bodies of water. (**Small creeks and streams**)
3. Population growth **benefits** sustainability. (**harms**)
4. Plastic products are made from **cotton**. (**oil**)

5. Deforestation **improves** the natural habitats of living organisms. (**harms/damages/destroys**)
6. The state provides natural **gardens** to protect endangered species. (**protectorates**)
7. Using a water filter leads to water **pollution**. (**filtration**)
8. Water is one of the most important **industrial** resources on the Earth. (**renewable**)
9. Water from the High Dam in Egypt is used to generate **thermal** energy. (**electrical**)
10. Rivers are considered sources of **salt** water. (**fresh**)
11. **Dams** are used to filter contaminated water for reuse. (**Water filters**)

4 Complete the following sentences:

1. The Wadi El-Hitan Reserve is located in **Fayoum**.
2. Poor water quality exposes many living organisms to the danger of **extinction**.
3. If the water at the upstream decreases, the water at the downstream will **decrease**.
4. Among the factors that affect sustainability are **overpopulation** and **pollution**.
5. Excessive use of well water can lead to wells **drying up**.
6. The area where water collects from different sources and moves in one direction is a **watershed**.
7. **Pollution** is one of the factors affecting sustainability.
8. Water is considered one of the **renewable** resources on the Earth's surface.
9. Floods occur when the amount of rainfall in rivers **increases**.
10. A **water filter** is used to convert polluted water into clean water.
11. Wastewater engineers in Egypt work in **Bahr Al-Baqar Wastewater Treatment Plant**.
12. Water can be controlled and conserved by **building dams**.

5 Write what the following statements mean:

1. It is using a resource in a way that does not negatively affect the future availability of that resource. (**Sustainability**)
2. It is restricting access and use of resources, (**Preservation**)
3. It is the main engine of the water cycle in nature. (**Solar energy – The Sun**)

6 What happens if:

1. The amount of rain falling was very little?
   The water level will decrease, causing drought.
2. The rainfall was more than the river could contain?
   The water level will rise, causing flooding.
3. The cows started eating all the grass before the new grass grew?
   The grass will disappear and cows will be hungry.
4. The factory waste leaks in one of the small streams?
   It will pollute the water of the tributaries connected to this small stream.
5. Well water is used more than is replenished by rainfall?
   The well will dry up.

Pony Revision on Concept 4.1

Effects of Gravity

Ninth and Tenth Weeks

1 Choose the correct answer:

1. Objects move under the effect of two forces, which are ..... .
   - a. pull and magnet
   - b. pull and wind
   - **c. pull and push**
   - d. rotation and push
2. The force of ..... holds objects on Earth.
   - a. wind
   - b. air resistance
   - c. push
   - **d. gravity**
3. The force of gravity causes ..... .
   - a. the moon's revolution around Earth
   - b. the Earth's revolution around the Sun
   - c. Objects to fall towards Earth
   - **d. all of the previous answers**
4. Which of the following objects has the greatest gravity?
   - a. Earth
   - b. The moon
   - c. Jupiter
   - **d. The Sun**
5. Which of the following causes an increase in the force of attraction between two objects?
   - a. Increasing the distance between them
   - **b. Increasing their masses**
   - c. Decreasing their masses
   - d. Increasing the force of friction
6. The force that returns the ball after it is thrown upward is the force of ..... .
   - a. push
   - b. friction
   - **c. gravity**
   - d. pull
7. If the distance between the Earth and the moon increases, the force of attraction between them will ..... .
   - a. increase
   - b. disappear
   - **c. decrease**
   - d. be unchanged
8. Magnetic force is considered a force of ..... .
   - a. push only
   - b. pull only
   - c. friction
   - **d. push or pull**
9. Gravity is considered a ..... force.
   - a. pushing
   - b. friction
   - c. visible
   - **d. pulling**

10. When the ..... of an object increases, its gravity increases.
    a. motion **b. mass** c. resistance d. distance
11. A magnet pulls metal paperclips because of its ..... .
    a. gravitational force b. wind
    c. air resistance **d. magnetic force**
12. Planets revolve in fixed orbits around the Sun under the effect of the gravity of ..... .
    a. Earth b. the moon c. Jupiter **d. the Sun**
13. When an object is thrown vertically upward, it ..... .
    a. moves at a great speed toward space
    b. floats in space due to the absence of gravity
    c. remains suspended because the gravity between it and Earth is equal
    d. returns to Earth under the effect of gravity
14. The force of ..... is generated between two touching surfaces and slows the movement of objects.
    a. gravity b. push c. magnetism **d. friction**
15. The force that returns a ball to the ground after it has been thrown upward is ..... .
    a. air resistance b. frictional force
    c. gravitational force d. magnetic force
16. ..... pulls skydivers upward to slow their fall toward the ground.
    a. Frictional force b. Magnetism
    c. Gravity **d. Air resistance**

2 Put (✓) or (✗):

1. The Earth's gravity is greater than the moon's gravity. **(✓)**
2. Whenever the mass of an object increases, its gravitational force decreases. **(✗)**
3. Magnetic force is considered a pulling force only. **(✗)**
4. The force of gravity exists only between objects in touch. **(✗)**
5. Objects fall downward due to the frictional force. **(✗)**

6. Gravity is considered a visible force, while magnetism is an invisible force. (✗)
7. Friction increases the speed of an object. (✗)
8. Air resistance does not decrease the speed of a moving object. (✗)
9. Gravity affects the speed of planets revolution around the Sun. (✓)
10. An orbit is a spherical shape in which the planets revolve around the Sun. (✗)
11. Planets revolve around the Sun in fixed orbits under the effect of the Sun's gravity. (✓)
12. Light objects reach the Earth faster than heavy objects in the absence of air resistance. (✗)

3 Correct the underlined words:

1. The Moon's gravitational force is **greater** than Earth's gravitational force. (**less**)
2. Earth's gravity causes objects to move **upward**. (**downward**)
3. When an object falls from a high place, it moves **upward**. (**downward**)
4. When the distance between two objects increases, the force of attraction between them **increases**. (**decrease**)
5. The effect of gravity increases whenever an object is **raised above** Earth's surface. (**near**)
6. Waterfalls flow from the top of a river to the bottom due to **air resistance** (**gravity**)
7. Magnets attract **wooden** objects. (**Metal**)
8. The force of gravity between two objects **increases** as the distance between them increases. (**Decrease**)
9. Air resistance affects an object which falling downward in **the same** direction of Earth's gravity. (**opposite**)
10. The force that generated between two touching surfaces leads to slow the movement of object is known as **magnetism**. (**Friction force**)
11. **Earth** is the center of motion in the solar system. (**Sun**)
12. magnet pulls metal paper clips due to the force of **gravity**. (**Magnetism**)

4 Complete the following sentences:

1. Gravity is a type of **pulling force**.
2. The Earth's gravitational force pulls objects **down towards the center of the Earth**.
3. **Planets** revolve around the Sun in a fixed orbit due to gravity.
4. When the distance between two objects decreases, the gravitational force between them **increases**.
5. If the moon's mass increases, the gravitational force between it and Earth **increases**.
6. If the distance between the moon and Earth increases, the gravity between them **decreases**.
7. Whenever the **mass** of an object increases, its gravity increases.
8. The force of gravity between two objects decreases as the **distance** between them increases.
9. Planets revolve around the Sun in a **fixed** orbit.
10. Air resistance acts **opposite** to the direction of Earth's gravity.
11. Magnets have a strong attraction to certain metals, such as **iron**, **cobalt**, and **nickel**.
12. **Gravity** holds objects on the Earth's surface.
13. The moon revolves in a fixed **orbit** around the Earth due to Earth's **gravity**.
14. **Air resistance** reduces the speed of an object's movement in the air.
15. Planets revolve in fixed orbits due to the effect of **the Sun's** gravity.
16. Magnets attract some metals, such as **iron**.

5 Write what the following statements mean:

1. It is a force of attraction between two objects with mass. (**Gravity**)
2. It is a type of frictional force generating from the movement of an object in the air. (**Air resistance**)
3. It includes the Sun and the planets that revolve around it. (**Solar System**)
4. It is a force generated between two touching surfaces, leading to slowing the movement of the object. (**Friction force**)

6 Give reasons for:

1. Objects on the Earth's surface will remain stable.

   Because of the Earth's gravity that attracts all objects toward the Earth's center.

2. The moon revolves around Earth in a fixed orbit.

   Because of Earth's gravity that keeps the moon in a fixed orbit around Earth.

3. The moon's gravity is less than Earth's gravity.

   Because the mass of Earth is greater than the mass of the moon.

4. The Sun is the center of motion in the solar system.

   Because the Sun has the biggest mass, so it has the greatest gravitational force, which attracts all planets in the solar system.

5. Earth's gravity is stronger than the moon's gravity.

   Because the mass of Earth is greater than the mass of the moon.

6. The moon revolves around Earth in a fixed orbit.

   Because of Earth's gravity.