
PONY
سلسلة كتب الاستاذ
SCIENCE
2025
FINAL
REVISION
5
PRIMARY
FIRST TERM
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Concept 1.1

Q1 Choose the correct answer:

1 The ..... absorb(s) water and salts from the soil.
a. stem b. leaves c. roots

2 The ..... deliver(s) water and salts from the roots to the plant leaves.
a. stem b. leaves c. roots

3 The process of photosynthesis occurs in the ..... .
a. stem b. flowers c. leaves

4 The needs of plants and animals are similar in all the following, except ..... .
a. water b. air c. method of obtaining food

5 ..... is one of the basic needs of plants.
a. Soil b. Air c. Oxygen

6 The plant makes its food, which is ....., through the process of photosynthesis.
a. sugar b. protein c. seeds

7 Root hairs help in ..... the amount of water that the plant can take from the soil.
a. decreasing b. increasing c. not changing

8 Phloem vessels carry glucose down from the ..... to the rest of the plant parts.
a. leaves b. stems c. roots

9 During photosynthesis, plants release ..... into the air so that we can breathe.
a. carbon dioxide b. oxygen c. sugar

10 Xylem vessels are tubes that allow water to move ..... from the roots to other parts of the plant.
a. down b. up c. in its place

11 ..... is a component within a plant that absorbs sunlight during photosynthesis.
a. Chlorophyll b. Stomata c. Xylem

12 Air passes through small openings in the leaves of the plant called ..... .

a. xylem b. chlorophyll c. **stomata**

13 The potato plant is known to have a/an ..... stem that extends underground.

a. **tuber** b. extension c. climber

14 The blood rich in oxygen moves inside the body from the heart to the body's organs through the ..... .

a. phloem b. veins c. **arteries**

15 In the process of photosynthesis, light energy is converted into ..... energy.

a. gravitational b. thermal c. **chemical**

16 The process of transporting seeds from one place to another is called ..... .

a. seed germination b. transpiration

c. **seed dispersal**

17 The blood rich in carbon dioxide returns to the heart through the ..... .

a. arteries b. **veins** c. phloem

18 The human transportation system is called the ..... system.

a. digestive b. **circulatory** c. respiratory

19 The plant absorbs ..... gas during the process of photosynthesis.

a. oxygen b. **carbon dioxide**

c. nitrogen

20 The ..... is considered an organ of the circulatory system.

a. skin b. **heart** c. brain

21 The heart consists of ..... chambers.

a. three b. **four** c. five

22 There are several types of leaves, including wide flat leaves, such as the leaves of ..... .

a. **banana trees** b. pine trees c. grapes

Q2 Put (✓) or (✗):

1. The roots absorb light from the Sun. (✗)
2. Soil is considered a basic need for plant growth. (✗)
3. The plant absorbs water from the soil through the root. (✓)
4. The plant uses natural resources to grow and flourish. (✓)
5. Photosynthesis occurs in plant seeds. (✗)
6. Chlorophyll gives the plant its distinctive green color. (✓)
7. The xylem carries glucose from the leaves to the rest of the plant. (✗)
8. A plant does not need sunlight in the process of photosynthesis. (✗)
9. The arteries and veins in the human body are similar to the vessels of xylem and phloem in plants that transport water and food. (✓)
10. Glucose provides the plant with the energy needed for growth and survival. (✓)
11. Blood moves in the arteries and veins in two directions. (✗)

Q3 Mention the scientific term:

1. They're stems that extend horizontally on the surface of the Earth and help in the formation of new plants, such as the strawberry plant. (Runner stems)
2. They're small openings (holes) in the leaves of the plant through which air passes. (Stomata)
3. It's a process that occurs inside the leaves of the plant to make its food. (Photosynthesis process)
4. They're thick and solid stems, such as the roots of trees and shrubs. (Woodstems)
5. It's a substance responsible for the green color of the plant. (Chlorophyll)
6. They're vessels in the plant that are responsible for transporting nutrients from the leaves to all parts of the plant. (Phloem)
7. They're vessels that transport water and nutrients from the roots to all parts of the plant. (Xylem)
8. They're vessels that transport the blood rich in carbon dioxide and a little oxygen and nutrients from parts of the body to the heart. (Veins)
9. It's a group of vessels (tubes) that transport important nutrients in one direction between parts of the plant. (Plant transport system)

10 They're small, dark parts located in the middle of the sunflower. (Seeds)

11 They're the reproductive parts of the plant. (Flowers)

12 It's the process of transferring seeds from one place to another. (Seeds dispersal)

Q4 What is meant by:

- The process of photosynthesis.

  It is the process through which the green plants (leaves) absorb sunlight to make their own food

  Sunlight + Carbon dioxide + Water → Oxygen + Sugar

Q5 Complete the following sentences:

1 Plants get water and nutrients from the soil.

2 The roots help the plant get water from the soil.

3 Air and water are considered basic needs for the growth and survival of living organisms.

4 The energy source of a plant is glucose sugar.

5 During photosynthesis, light energy is transformed into chemical energy.

6 The plant needs carbon dioxide gas, water, and sunlight to carry out the photosynthesis process.

7 If the appropriate conditions are available for the seeds, they grow and form sprouts.

8 Plant cells depend on glucose sugar as a source of energy and growth.

9 The process of reproduction is the production of new individuals of the same species.

10 Flowers in plants perform the function of reproduction.

11 Coconut seeds are transmitted by water.

12 Oxygen gas is produced through the process of photosynthesis and humans use it for breathing.

13 The transport system in plants is similar to the circulatory system in humans.

14 There are three types of blood vessels in the human circulatory system: arteries, veins, and blood capillaries.

Q6 State the scientific reason:

1. Plants need sunlight to survive.
   To make their own food by the photosynthesis process.
2. The human body needs water and food daily.
   To get energy to do life activities.
3. The little squirrel needs food.
   To get energy to grow and survive.
4. Sugar is not a basic need for plants.
   Because plants can make it during the photosynthesis process.
5. There are root hairs in the plant root.
   To increase the amount of absorbed water and nutrients from the soil.
6. A plant does not grow well in a paper towel.
   Because it needs nutrients from the soil to grow well.
7. Dandelion seeds spread in the presence of wind.
   Because they are light seeds.

Q7 What happens if:

1. A green plant is placed in a dark place for a week?
   It will die because it can't make its own food by the photosynthesis process.
2. A plant obtains natural resources?
   It will grow well and survive.
3. A plant does not have roots?
   It can't absorb water and nutrients from the soil and can't be fixed in the soil.
4. A plant does not have natural resources?
   It can't make its food through the photosynthesis process, so it will die.
5. A green plant is placed in a dark place for a period of time?
   It will die because it can't make its own food by the photosynthesis process.
6. The roots disappear from a plant?
   The plant can't absorb water and nutrients from the soil.

7 Plants disappear from the surface of the Earth?

All living organisms will die because they can't breathe in oxygen gas that is produced from the photosynthesis process.

8 The seed of a plant fall on an unsuitable environment?

It can't germinate to form a new plant.

9 A plant is left without water for long periods?

It will die because it can't make its own food by the photosynthesis process.

10 A seed of a plant falls on a suitable environment?

The seed will grow (germinate) to form a new plant.

Q8 Answer the following questions:

1 What role do the leaves play in helping a plant get food?

Leaves make food for the plant through the photosynthesis process.

2 What role does the stem play in helping a plant get food?

It transports water and nutrients from the roots to the leaves.

3 What role do the roots play in helping a plant get food?

They absorb water and nutrients from the soil and fix the plant in the soil.

4 The plant stem has many different shapes, mention them.

Wood stem – upright stem – climb stem – runner stem – tuber stem

5 What are the differences between the needs of humans and plants?

Humans Needs	Plants Needs
Food Water Air Shelter	Sunlight Air Water Space to grow Nutrients

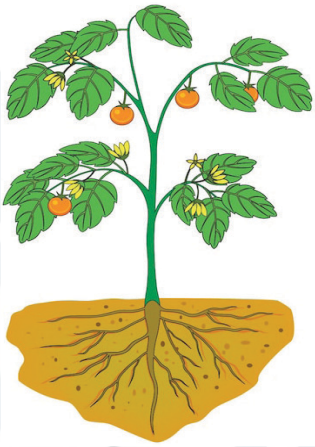
6 What does the picture in front of you indicates?



Germination process

7 Put each word in its correct place.

Roots – Stem – Leaves – Flower



8 Look at the two pictures and answer:
What are the types of tree leaves in front of you?





Wide leaves

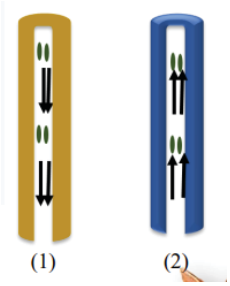
Needle leaves

9 In front of you is a plant whose shape has changed from picture (1) to picture (2). What is the reason for that?



Because without access to carbon dioxide, sunlight, or water, a plant cannot carry out photosynthesis, so it will die.

10 Look at the pictures in front of you, then complete:



a. The xylem vessel is represented by shape (2) and it carries water and nutrients.

b. The phloem vessel is represented by shape (1) and it carries plant food (glucose sugar).

11 Look at the picture in front of you.



a. What is the name of the small, dark things in the middle of the flower? The seeds

b. What is their importance to plants?

It is the reproductive part of the plant.

Because they help the plant reproduce by producing seeds.

12 Notice the pictures of the following seeds and complete the table:

Seed	Dispersal Method
	By wind
	By wind

Concept 1.2

Q1 Choose the correct answer:

1 ..... belong(s) to the nonliving components of the ecosystem.
a. Animals b. Plants c. Soil d. Insects

2 ..... are among the organisms that produce food.
a. Animals b. Plants c. Soils d. Humans

3 Fungi are found in the ..... of the food chain.
a. beginning b. middle c. end d. start

4 ..... obtain energy directly from the Sun.
a. Plants b. Humans c. Animals d. Insects

5 Which of the following represents a correct food chain?
a. Hawk → Grass → Bacteria → Rabbit → Snake.
b. Grass → Rabbit → Bacteria → Hawk → Snake.
c. Grass → Rabbit → Snake → Hawk → Bacteria.

6 ..... organisms increase soil fertility.
a. Producer b. Carnivore c. Herbivore d. Decomposer

7 All the following are considered as producer organisms, except ..... .
a. carrot b. rabbit c. grass d. cactus

8 Which of the following is a correct example of a food chain?
a. Mouse → Snake → Grass. b. Rabbit → Carrots → Bacteria.
c. Grass → Deer → Bacteria. d. Hawk → Fish → Algae.

9 Which of the following organisms could end the food chain?
a. Mouse and snake b. Rabbit and carrots
c. Grass and cactus d. Bacteria and fungi

10 A food chain begins with ..... .
a. decomposers b. producers c. consumers d. humans

11 A plant obtains energy directly from the ..... .
a. moon b. animals c. Sun d. humans

12 ..... organisms are responsible for returning the organic elements to the soil.
a. Producer b. Consumer c. Decomposers d. Predators

13 Energy passes between living organisms through the ..... .

a. ecosystem b. water c. air d. soil

14 Which of the following are decomposers?

a. Locusts b. Hawks c. Grass d. Bacteria

15 All the following are considered consumer organisms, except ..... .

a. owls b. rabbits c. algae d. grasshoppers

16 Energy passes from the Sun to the consumer organisms through ..... organisms.

a. predator b. producer c. decomposer d. prey

Q2 Put (✓) or (✗):

1 The lion is a consumer organism. (✓)

2 Humans are the main source of energy on Earth. (✗)

3 In the ecosystem, energy is transferred from one organism to another. (✓)

4 Light seeds are spread by wind. (✓)

5 A food chain begins with consumers. (✗)

6 An ecosystem is several interconnected food chains. (✗)

7 A snake is an example of a predator and prey in some food chains. (✓)

Q3 Mention the scientific term:

1 It is the path of energy flow from one organism to another. (Food chain)

2 It is a process in which the plant obtains energy. (Photosynthesisprocess)

3 It is a system consisting of living organisms and nonliving things. (Ecosystem)

4 It is the main source of energy on Earth. (The Sun)

5 They are organisms that produce their own food. (Producers)

6 It is a group of different food chains that interact together. (Food web)

Q4 Complete the following sentences:

1. The main source of energy on the surface of the Earth is the Sun.
2. An ecosystem consists of living organisms and nonliving things.
3. Decomposers feed on the remains of dead organisms.
4. Humans are consumer organisms.
5. Energy is transferred from producers to consumers through the food chain.
6. An animal that feeds on another animal is called consumer.
7. Fish and birds are consumer organisms.
8. A food chain ends with decomposer organisms.
9. When a fox feeds on a rabbit, the rabbit is called a predator.
10. The interconnection of a group of food chains is known as a food web.
11. The food chain begins with a producer organism.
12. Light seeds are spread by wind.
13. The organisms responsible for returning organic elements to the soil are the decomposers.

Q5 Give reasons for:

1. Trees are considered as producers.

   Because they can make their own food by the photosynthesis process.
2. The food web is a system of energy flow.

   Because a food web consists of several interconnected food chains that show the flow of energy between living organisms.

Q6 What happens if:

1. Decomposers disappear?

   Dead organisms will not decompose and their nutrients will not return back to the soil.
2. Sunlight does not reach the Earth?

   Plants can't make their own food by the photosynthesis process and can't produce oxygen gas, which all living organisms need to breathe.

Q7 Answer the following:

Q1. Mention:

1 One example of a decomposer organism.

Bacteria – fungi – worms – millipeds

2 One example of a consumer organism.

Rabbit – deer – lion – snake

3 One example of a producer organism.

Plants – grass – trees – carrot

4 The way of sticky and rough seeds dispersal.

By animal fur or human clothes

5 The role of decomposers in the food chain.

They decompose the dead organisms and return their nutrients back to the soil.

6 The importance of the earthworms to the soil.

They increase the soil fertility because they recycle nutrients to the soil.

Q2. Explain the following statements:

a. A plant needs sunlight.

To make its own food by the photosynthesis process.

b. A food web is an energy flow system.

Because a food web consists of several interconnected food chains that show the flow of energy between living organisms

Q3. Create food chains from the following organisms.

a. Rabbits – Grass – Hawks – Snakes

Grass → Rabbits → Snakes → Hawks

b. Insects – Snakes – Grass – Frogs – Hawks

Grass → Insects → Frogs → Snakes → Hawks

c. Rabbits – Carrots – Snakes – Bacteria – Hawks

Carrots → Rabbits → Snakes → Hawks → Bacteria

d. Mice – Grass – Hawks – Snakes

Grass → Mice → Snakes → Hawks

Concept 1.3

Q1 Choose the correct answer:

1 The drying up of lakes leads to a/an ..... in the ecosystem.
a. stability b. imbalance c. strength d. balance

2 When the grass in the ecosystem decreases, the number of rabbits ..... .
a. increases b. is not affected c. decreases d. remains the same

3 Which of the following organisms begins the marine ecosystem?
a. Algae b. Mollusks c. Sharks d. Grass

4 A cactus is considered a ..... organism in the desert food web.
a. producer b. consumer c. decomposer d. prey

5 The ..... is created to preserve marine organisms in their ecosystem.
a. desert b. aquarium c. protected marine environment

6 All the following cause disruption to food webs in the desert environment, except ..... .
a. drought b. light rain c. pollution d. floods

7 Algae are found in the ..... of the marine food chain.
a. beginning b. middle c. end d. last

8 Which of the following organisms begins the food chain in the desert environment?
a. Rabbit b. Fox c. Grass d. Algae

9 All the following organisms are affected by plastic materials in water, except ..... .
a. seabirds b. algae c. whales d. sea turtles

10 ..... are considered homes to many fish.
a. Microorganisms b. Marine algae c. Sea turtles d. Coral reefs

11 ..... is considered one of the human activities that negatively affect the marine environment.
a. Loss of algae b. Climate change
c. Throwing plastic materials into the seas
d. Recycling plastic

12 A food chain in the ocean begins with ..... .
a. small fish. b. microorganisms c. sea turtles d. starfish

13 Overfishing leads to a/an ..... in the number of marine organisms.
a. increase b. growth c. decrease d. a lot of

14 All the following happen when the temperature of water rises in the oceans, except ..... .
a. increased numbers of microorganisms
b. corals get rid of algae
c. small fish move to other areas d. coral bleaching

15 Microorganisms need ..... water to survive.
a. moderate b. cold c. hot d. warm

16 ..... cause the death of marine organisms when feeding on them.
a. Floods b. Plants
c. Algae d. Plastic materials

17 The phenomenon of coral bleaching happens as a result of ..... water temperature.
a. rising b. moderating c. decreasing d. constant

18 ..... is considered one of the causes of disruption in the marine environmental web.
a. Habitat restoration b. Nursery
c. Overfishing d. Heavy rain

Q2 Put (✓) or (✗):

1 An ecosystem is affected when decomposers disappear. (✓)
2 A food chain in the desert environment begins with algae. (✗)
3 The octopus is an example of a producer organism in the marine ecosystem. (✗)
4 Heavy rain leads to a disruption in the desert ecosystem. (✓)
5 Coral reefs are habitats to many fish. (✓)
6 Loss of habitat is one of the most important causes of extinction. (✓)
7 Recycling plastics contributes to preserving the ecosystem. (✓)
8 Plastic materials have a positive effect on marine organisms. (✗)

9 The number of living organisms decreases if climatic conditions are suitable. (✗)

10 Human activities that occur on land effect the marine ecosystem. (✓)

Q3 Mention the scientific term:

1 It is the disappearance or death a species of marine organisms. (Extinction)

2 It is an area in the ocean where small pieces of corals are cared for. (Nursery)

3 They are small pieces of plastic material that are a grain of rice size. (Microplastics)

Q4 Complete the following sentences:

1 The absence of producers leads to the death of consumers.

2 Energy passes from grass to locusts in the desert environment.

3 When producer organisms disappear from an ecosystem, primary consumer organisms die.

4 The Island of Palau needs to establish a conservation program to protect its waters from pollution.

5 Loss of habitat is one of the most important reasons for extinction.

6 Seabirds depend on small fish for their food.

7 Marine microorganisms move to a new habitat when there is a change in the temperature of water.

8 Algae are considered producer organisms in the marine environment.

9 Sunlight causes plastic materials to break down into small particles.

10 Coral reefs turn white due to the increase in water temperature.

Q5 Give reasons for:

1 Sea turtles eat a lot of plastic materials.

Because they can't differentiate between a jellyfish and a piece of plastic.

2 The phenomenon of coral bleaching occurs.

When water temperature rises, coral reefs get rid of algae and their color turns completely white.

Q6 What happens if:

1 Drought occurs in an ecosystem?

The ecosystem may be destroyed because plants will die and also primary consumers will die.

2 Grass disappears from the desert ecosystem?

Primary consumers will move to another place to search for food or they will die.

3 The water temperature increases for microorganisms?

Microorganisms will move to cooler water along with small fish.

4 The amount of plastic materials in the marine environment increases?

Plastic will harm harm organisms that live in water, such as whales, sea turtles, and corals.

5 Living organisms cannot adapt to climate changes?

Living organisms will move to another habitat or they will die (their population will decrease.)

Q7 Answer the following questions

Q1. Mention:

1 Some methods that are used to reduce pollution of the marine environment with plastic materials.

1. Decreasing the use of plastic products
2. Recycling plastic products

2 One of the causes of habitat loss.

- Building more buildings and roads
- Throwing waste materials in water
- Overfishing

3 The importance of the nursery.

Scientists take care of corals until they grow and can be moved back to the reefs.

Q2. Create a food chain from the following organisms:

Sea urchins – Sharks – Algae – Parrotfish

Algae → Sea urchins → Parrotfish → Sharks

Concept 2.1

Q1 Choose the correct answer:

1 Which of the following substances consists of particles that are closely connected to each other?

a. Helium gas b. Wood c. Water vapor d. Cooking oil

2 The matter consists of a group of ..... .

a. organs b. devices c. gases d. particles

3 The atmospheric air is considered a ..... matter.

a. solid b. frozen c. liquid d. gaseous

4 Which of the following is not considered a matter?

a. Wood b. Air c. Light d. Water

5 Pens and rulers are examples of ..... matter.

a. solid b. liquid

c. gaseous d. all the previous

6 The particles of matter are very close to each other in the state of ..... .

a. oxygen b. water c. oil d. iron

7 Water is found in nature in ..... states.

a. three b. four c. five d. six

8 Everything that has mass and occupies space is called ..... .

a. volume b. state c. matter d. mass

9 The distances between the particles of a gaseous matter are ..... the distances between the particles of a liquid matter.

a. double b. greater than c. equal to d. smaller than

10 The ..... is considered a similar copy to the real thing to illustrate its shape or the way it works.

a. energy b. particle c. model d. matter

11 A ..... matter has a fixed volume and a variable shape.

a. solid b. liquid c. frozen d. gaseous

12 Which of the following consists of particles that are interconnected and very close together?

a. Edible oil b. Water vapor c. Helium d. Wood

13 The movement of water particles is slower than the movement of ..... .
a. oil b. cars c. hydrogen d. juice

14 The steam rising from food is an example of a ..... state.
a. solid b. liquid c. gaseous d. frozen

15 Which of the following substances can be poured?
a. Salt b. Water vapor c. Milk d. Air

Q2 Put (✓) or (✗):

1 Sound is a form of energy. (✓)
2 Ice turns into a liquid by cooling. (✗)
3 A gaseous matter does not occupy space. (✗)
4 Milk has a fixed shape whatever the shape of the container is. (✗)
5 The same substance can exist in nature in more than one state. (✓)
6 When we press on a balloon, its volume increases. (✗)
7 Models help us understand how things work. (✓)
8 The particles of solid matter spread very quickly. (✗)
9 Germs can be seen with the naked eye. (✗)
10 Solids, liquids, and gases have a specific shape in common. (✗)
11 A gaseous matter has a fixed volume and an unstable shape. (✗)

Q3 Mention the type of each of the following matters:

Oil – Book – Apple – Water vapor – Table – Ruler – Helium – Tree – Vinegar

Solid: Book – Apple – Table – Ruler – Tree

Liquid: Oil – Vinegar

Gas: Water vapor – Helium

Q4 Write what the following statements mean:

1 It is the amount of space occupied by a body. (Volume)
2 It is a matter whose particles are not interconnected and move completely freely. (Gas)
3 They are the small units that make up matter. (Particles)
4 It is the state of water after freezing. (Solid state)

5 It is a copy of something to show what it looks like or how it works. (Model)

6 It is a state of matter whose shape is variable and volume is constant. (Liquid)

7 They are the building units of matter. (Particles)

Q5 Complete the following sentences:

1 Matter can exist in 3 states.
2 Matter can be poured in the liquid state.
3 Sound is considered a form of energy.
4 Everything that has mass and occupies space is called matter.
5 Water can exist in a solid state in the form of ice.
6 The particles of matter are very close together in solid matter.
7 The particles of a gaseous matter spread very quickly.
8 A liquid matter can be poured, but a solid matter cannot be poured.
9 A pen is an example of a solid matter.
10 The liquid state of water changes when it is heated or cooled.
11 Matter consists of small units called particles.
12 Gases have no definite shape and volume.
13 A solid matter has a fixed shape and volume.
14 The shape of a gaseous matter and its volume are variable.

Q6 Mention the importance of:

1 Earth model.

To know the shape of Earth

To know how much of Earth is covered with water

To know where different countries are located

2 Solar system model.

- It helps us see all planets at once.
- It helps us compare between planets, knowing which one is the biggest, and which one is the closest to Earth.

Q7 Compare between:

- The solid, liquid, and gaseous states in terms of:

* The arrangement of particles * Strength of the bond between them

P.O.C	Solid	Liquid	Gaseous
Arrangement of Particles	Regular pattern (organized) Very close to each other	Not well-organized	Random arrangement (Not organized at all)
Strength of Bond	Strong	Moderate	Weak

Q8 Give reasons for:

1. Vinegar takes the shape of the container that it is placed in.
   Because it is liquid and its particles slide over each other.
2. Oxygen has an indefinite shape and volume.
   Because oxygen is a gas.
3. The cup has a definite shape and volume.
   Because a cup is solid matter

Q9 What happens if:

1. You put a bottle of water in the freezer?
   It freezes (changes from a liquid state to a solid state).
2. You expose a piece of ice to the Sun for a long time?
   It changes from a solid state to a liquid state.
3. Water is exposed to a high temperature?
   Water changes from a liquid state to a gaseous state (water vapor).
4. You press on an inflated balloon?
   Its volume decreases, and the particles of air inside it get closer.
5. Water is exposed to a low temperature?
   It freezes (water changes from a liquid state to a solid state (ice)).

Concept 2.2

Q1 Choose the correct answer:

1 We use the ..... unit to measure the mass of the body.
a. liter
b. kilogram
c. meter
d. cubic centimeter

2 All the following are chemical properties of matter, except ..... .
a. burning
b. combustion
c. color
d. rust

3 We use a ..... to measure temperature.
a. ruler
b. thermometer
c. measuring cup
d. common balance

4 The amount of matter that the body contains is known as ..... .
a. volume
b. temperature
c. mass
d. length

5 A tape measure is used to measure the ..... .
a. temperature
b. weight
c. volume
d. length

6 The ..... is known as the space occupied by a body.
a. mass
b. volume
c. length
d. temperature

7 We use a ..... to measure the mass of a book.
a. measuring cup
b. measuring tape
c. common balance
d. thermometer

8 The ..... is considered one of the chemical properties of matter.
a. color of apples
b. smell of vinegar
c. burning of a paper
d. color of gold

9 5 liters = ... cm^3
a. 0.5
b. 50
c. 500
d. 5,000

10 ..... is used in making car tires.
a. Copper
b. Helium
c. Rubber
d. Glass

11 ..... floats above the surface of water.
a. Iron
b. Aluminum
c. Wood
d. Copper

12 Which of the following properties of matter cannot be measured?
a. Length
b. Mass
c. Taste
d. Volume

13 ..... is considered one of the matters that are attracted to magnets.

a. Plastic b. Wood c. Iron d. Cork

14 ..... is used to make medical glasses.

a. Helium b. Glass c. Rubber d. Iron

15 A ..... is used to measure the volume of a matter.

a. common balance b. measuring tape

c. measuring cup d. thermometer

16 All the following describe the physical properties of matter, except the ..... .

a. texture b. taste c. iron rust d. color

17 All the following are units of mass measurement, except ..... .

a. tons b. grams c. liters d. kilograms

Q2 Put (✓) or (✗):

1 The shapes of houses vary from one environment to another. (✓)

2 A ruler is used to measure the mass of objects. (✗)

3 The texture of the fabric is one of the chemical properties of the matter. (✗)

4 Iron rust is considered a physical change in the matter. (✗)

5 Temperature expresses the speed of particles movement in the matter. (✓)

6 It is possible to distinguish between iron and gold using the sense of smell. (✗)

7 Balloons are filled with helium gas. (✓)

8 Wood is a good conductor of electricity. (✗)

9 A measuring cup is used to measure the temperature. (✗)

10 The mass of matter changes from one state to another. (✗)

11 Shape and volume are physical properties of matter. (✓)

12 The roof of a desert house is similar to the roof of a house in a tropical forest. (✗)

Q3 Write what the following statements mean:

1. It is a non-toxic material used to fill air balloons. (Helium gas)
2. It is the ability of a material to transfer electricity and heat through it. (Conduction)
3. They are the properties that can be observed using the five senses. (Physical properties)

Q4 Complete the following sentences:

1. The volume of matter is measured by a measuring cup.
2. The length of a classroom can be measured by meters unit.
3. 3 kilograms = 3,000 grams.
4. Iron rust is an example of the chemical properties of a matter.
5. Color, taste, and smell are the physical properties of a matter.
6. A measuring cup is used to measure the volume of a matter.
7. Helium gas is used to fill balloons.
8. Copper is used to make electrical wires because it is a good conductor of electricity.
9. Copper is used to make cooking utensils.
10. The roof of the house is sloping in places with cold weather.
11. Thermal conduction is one of the physical properties of matter.
12. The roof of the house is flat in places with hot weather.

Q5 Mention one of the uses of:

1. Copper: Copper is used in making electric wires and cooking pans.
2. Helium: Helium is used to fill up balloons and blimps.
3. Glass: Glass is used in making eyeglasses and electric lamps.

Q6 Give reasons for:

1. Cookware handles are made of plastic not metal.
   Because plastic is a bad conductor of heat, and metal is a good conductor of heat.

2 Glass is used to make electric lamps.

Because it is transparent and smooth.

3 Wood is not used to make electrical wires.

Because wood is a bad conductor of electricity.

Q7 What happens if:

1 The particles of the matter are interconnected and close in relation to their density?

Its density increases.

2 The density of the substance is greater than the density of the liquid?

It sinks in liquid.

3 The density of the matter is less than the density of the liquid?

It floats on liquid.

Concept 2.3

Q1 Choose the correct answer:

1 The mass of ice after melting is ..... its mass before melting.

a. double b. greater than c. equal to d. less than

2 When water is placed in the freezer, it turns into ice as a result of ..... .

a. melting b. freezing c. filtration d. evaporation

3 The process of freezing is the reverse process of ..... .

a. boiling b. melting c. condensation d. evaporation

4 Examples of physical processes include ..... .

a. iron rusting b. wood burning

c. paper burning d. making a fruit salad

5 Liquid chocolate can be returned into its solid state by ..... .

a. heating b. cooling c. evaporation d. condensation

6 The speed of particles movement increases in the process of ..... .

a. freezing b. melting c. condensation d. cooling

7 The components of a mixture of sand and water are separated by ..... .

a. filtration b. evaporation

c. cooling d. filtration and cooling

8 Condensation is the change of matter from the ..... state to the liquid state.

a. solid b. gaseous c. physical d. chemical

9 A chemical change occurs when ..... a paper.

a. bending b. cutting c. burning d. grinding

10 The melting of wax is considered a/an ..... change.

a. environmental b. chemical c. organic d. physical

11 ..... is considered a physical change.

a. Bread making b. Rock crushing c. Iron rust d. Wood burning

12 The mass of a mixture before mixing is ..... its mass after mixing.

a. greater than b. equal to c. smaller than d. double

13 What is the correct order of water desalination steps?

a. Evaporation – Filtration – Condensation

b. Condensation – Filtration – Evaporation

c. Filtration – Evaporation – Condensation

d. Evaporation – Condensation – Filtration

14 All the following are physical changes, except ..... .

a. cutting vegetables b. burning a paper

c. cutting cloth d. melting ice

15 The formation of copper into wires is a/an ..... change.

a. thermal b. chemical

c. environmental d. physical

16 All the following are chemical changes of matter, except ..... .

a. burning wood b. cutting fruits c. food digestion d. iron rust

Q2 Put (✓) or (✗):

1 Heat is a form of matter. (✗)

2 Melting is the transformation of ice into water. (✓)

3 A mixture consists of only one substance. (✗)

4 Changing the temperature affects the shape and mass of matter. (✗)

5 When a liquid matter is heated, it turns into a solid state. (✗)

6 Separating mixtures by evaporation requires raising the temperature. (✓)

7 Grinding sugar is considered a physical change. (✓)

8 The change in the state of water from a solid to a liquid is a chemical change. (✗)

9 A physical change is a change in the form of matter only. (✓)

10 The formation of rust on an iron nail is an evidence of chemical change. (✓)

11 Salty sea water becomes drinkable after the filtration stage. (✗)

12 Melting of wax produces a new substance, so this is considered a chemical change. (✗)

Q3 Write what the following statements mean:

1. It is the process of changing matter from a solid state to a liquid state by raising the temperature. (Melting)
2. It is the process of changing matter from a gaseous state to a liquid state. (Condensation)
3. It consists of two or more mixed substances that can be easily separated. (Mixture)
4. It is a red chemical crust resulting from the reaction of iron with oxygen. (Rust)
5. It is a change in the shape, size, and state of matter. (Physical change)
6. It is a change in the composition of matter and a new substance is produced. (Chemical change)

Q4 Complete the following sentences:

1. Water turns into steam as a result of gaining thermal energy.
2. A compound consists of two or more substances combined chemically.
3. The movement of matter particles increases when the temperature of the matter increases.
4. The change of matter from a gaseous state to a liquid state is called condensation.
5. A mixture of a solid dissolved in water is separated by evaporation.
6. The mixture consists of two or more substances that are not chemically combined.
7. A matter changes from a solid state to a liquid state when it gains thermal energy.
8. Heat is one of the forms of energy
9. The transformation of ice into water is considered a physical change.
10. Physical changes do not change the composition of matter.
11. Salty sea water becomes drinkable after the evaporation stage.
12. The formation of gas bubbles when mixing an amount of vinegar with baking soda is an evidence of a chemical change in the matter.

13 Forming copper into wire is considered a physical change.
14 Digestion of food within the body's cells is a chemical change.
15 Melting a piece of butter is a physical change.

Q5 Classify the change that occurrs:

1 Wax melting	Physical change
2 Cloth bending	Physical change
3 Wood burning	Chemical change

Q6 What is meant by:

1 Freezing
It is the change of matter from a liquid state to a solid state by cooling.
2 Melting
It is he change of matter from a solid state to a liquid state by heating.
3 Condensation
It is the change of matter from a gaseous state to a liquid state by cooling.

Q7 Give reasons for:

1 Heat is not a matter.
Because it is a form of energy. it doesn't have mass and volume.
2 The Earth's atmosphere is a mixture.
Because it is formed of different gases: oxygen, nitrogen, and carbon dioxide.
3 Melting is a physical change.
Because the matter changes without any change in its properties.
4 Burning wood is a chemical change.
Because wood changes into ash (a new substance with different properties).
5 Dissolving sugar in water is a physical change.
Because there is no change in the structure of the sugar.

Q8 What happens:

1. To the mass of a matter when heated or cooled?
   The mass does not change.
2. When we place a piece of ice in the Sun for a long period of time?
   The ice melts and changes to water, then water evaporates and changes into water vapor.
3. When water is cooled to a temperature below zero degrees Celsius?
   It will freez (change from liquid state to soild state)
4. When we mix vinegar and baking soda?
   Gas bubbles are formed (chemical change).
5. When iron is left in the air without coating.
   It rusts (a layer with reddish color).