

# Unit (1):

## Lesson (1) Light

### Lesson Contents:

#### ➤ The properties of light:

- 1- .....
- 2- .....
- 3- .....
- 4- .....
- 5- .....

### Evaluation:

#### ➤ Complete:

- 1- Light travels in .....
- 2- From sources of light ....., ..... and .....
- 3- ..... is the main source of light on the earth.
- 4- The light energy that can be seen is called .....

➤ **Put (√) or (×):**

- 1- Light is form of energy. ( )
- 2- The visible spectrum is the light energy that can't be seen. ( )
- 3- The moon seems luminous because it reflects the sunlight. ( )
- 4- The image formed due to traveling of light in straight lines is inverted & bigger. ( )

➤ **Give reason for:**

- 1- Formation of images through narrow holes.

potential energy

طاقة وضع

reflection

انعكاس

visible spectrum

الطيف المرئي

partition

حاجز

## Lesson 1: Light:

- **Shadow:** is the darkened area which is formed as result of the light falling on an opaque surface.

### Lesson Contents:

#### 1- Transparent material:

.....  
.....

#### 2- Semi transparent material: (translucent):

.....  
.....

#### 3- Opaque material:

Regular reflection – irregular reflection.

### Evaluation:

➤ **Write scientific term:**

1- The material that don't allow light to transmit through.

[.....]

2-The material that things can be seen through. [.....]

3-The darkened area that formed as result of light falling on an opaque surface.

[.....]

➤ **Complete the following:**

1- Light cannot pass through ..... materials.

(transparent – sem transparent – opaque)

2- ..... is an example for transparent materials.

(wood – tissue paper – glass sheet)

3- Shadow is formed due to traveling of light in ..... lines.

(straight – curved – reflected)

➤ **Give reason for:**

1- Formation of shadow:

.....

➤ **What happen when:**

1- You look at your irrage through transparent material.

.....

opaque

معتم

transparent

شفاف

regular

منتظم

protrusion

بروز

scattered

## Lesson 1: Light.

- **Light refraction:** The change is speed and direction of light when it passes through two different transparent media.

### Lesson Contents:

#### 1-Separation of light:

.....

.....

#### 2-Rainbow:

.....

.....

#### 3-These colors are:

.....

.....

### Evaluation:

#### ➤ Complete:

1-The visible Spectrum consist of ..... colours.

2-The white colour can be Separated by using .....

3-The light can be easily transmute through ..... and .....

➤ **Complete the following:**

- 1- The change in direction of light passes through two transparent surface is called .....
- 2- Light reflect when falls on ..... surface.
- 3- Light ..... when transfers between two transparent media.

➤ **Put (√) or (×):**

- 1- If the seven colours accumulate with each other you can see the white colour. ( )
- 2- The visible Spectrum is the light energy that can be seen. ( )
- 3- The visible Spectrum consists of 9 colours. ( )

indigo

نيلي

rain bow

قوس قزح

analyzed

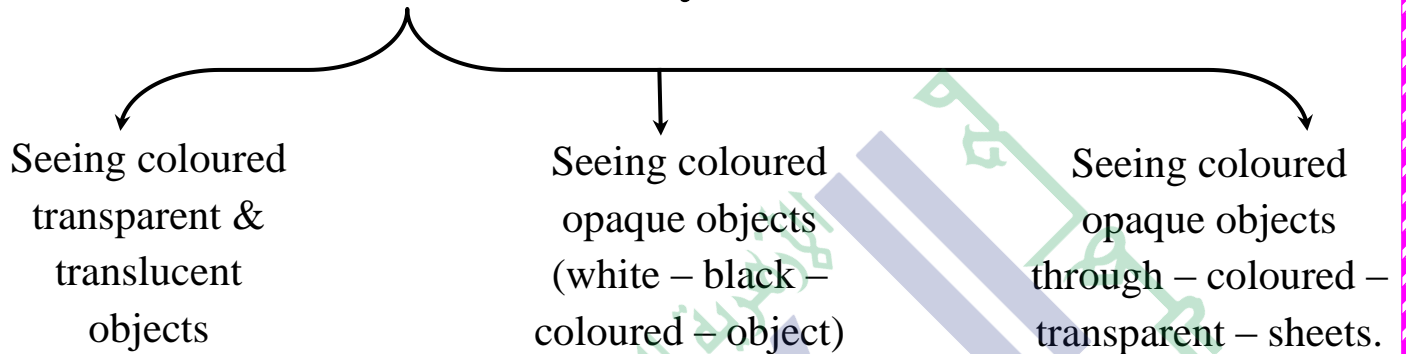
يتحلل

spectrum colours

الوان

## Lesson 2: Seeing coloured objects

➤ In this lesson we will study:



### Lesson Contents:

- 1- The transparent and semi-transparent object ..... all the colours of the white light except their colour which ..... to reach our eyes.
- 2-The coloured opaque object ..... All colours of the white light except the colour of the object which ..... to reach our eyes.
- 3- Opaque object .....
- 4- Tra coloured object have the same colour of the light which .....

### Evaluation:

➤ I can see this apple  red because .....



➤ **Complete the following:**

1-Transparent coloured objects have the same colour of the light which .....

2- I can see the leaf green because it ..... all colours of white light and ..... the green colour.

➤ **Give reason for:**

1- The transparent and semi transparent materials appear with the light that pass through it.

.....  
.....

strike

يصطدم

absorb

يمتص

permit

يسمح



## Lesson 2: Seeing coloured object:

### ➤ Seeing black & white objects opaque:


#### Lesson Contents:

- 1- Black objects ..... All the lights that fall on them and don't ..... any colours.
- 2- White objects ..... all the colours of the white light.
- 3- When you look at a red apple through a red transparent glass sheet seems .....

#### Evaluation:

### ➤ Complete:

1- I can see this car  black because it .....

2- I can see this  bird white because it .....

3- If I put the green apple in the red transparent glass it will seem ..... in colour.

➤ **Explain why:**

1- When you look at a red apple through a red transparent glass sheet, the red apple seems red.

.....

.....

.....

2- When you look at a red apple through a green transparent glass sheet, the red apple seems black.

.....

.....

.....

glass sheet

لوح زجاجي

reflected light

الضوء المنعكس

real colour

اللون الحقيقي

## Lesson 2: Seeing coloured object:

### ➤ Mixing colour lights:

#### Lesson Contents:

1- Primary coloured light:

.....

.....

2- Secondary coloured lights:

.....

.....

#### Evaluation:

### ➤ Complete:

1- Mixing ....., ..... and ..... lights  
giving white colour.

2- Red , green , blue lights are called .....

➤ **Complete:**

- 1- The opaque coloured objects have the same colour of the light which .....
- 2- Red light + green light + blue light = .....

➤ **Put (√) or (×):**

- 1- When white colour strike (fallon) a red rose, it reflects the white colour. ( )
- 2- Yellow and purple colours are primary colours. ( )
- 3- An object seems black because it absorbs all the colours of the white light. ( )

coloured projector sets  
secondary colored lights  
primary colored light  
dyes

اجهزة إسقاط ضوئية  
اضواء ملونة ثانوية  
اضواء اساسية  
اصباغ

## Lesson 3: Magnetism:

➤ Scientists called this black rock "magnet".

### Lesson Contents:

#### Types of magnet

Natural magnet

.....  
.....  
.....

Made man-magnet  
Artificial

.....  
.....

#### Materials according to Attraction to magnet

Magnetic material

.....  
.....  
.....

Non magnetic material

.....  
.....  
.....

### Evaluation:

➤ **Complete:**

1- The natural magnet is ..... stone named .....

2- The natural magnet was discovered in ..... area.

➤ **Put (√) or (×):**

1- The natural magnet is one of the iron ores called magnetite.

( )

2- A magnet attracts all materials.

( )

3- Rounded magnets have one pole.

( )

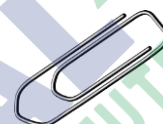
➤ **Write which is magnetic and which is non magnetic:**



.....



.....



.....



.....



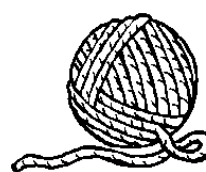
.....



.....



.....



.....

magnetism

المغناطيسية

attraction force

قوة الجذب

rocks

صخور

iron ore

خام الحديد

artificial

صناعي

ring

مستدير

## Lesson 3: magnetism:

### Lesson Contents:

#### ➤ The properties of magnet:

- 1- .....
- 2- .....
- 3- .....
- 4- .....

- Magnet field: .....
- Magnet force: .....

### Evaluation:

#### ➤ Complete:

- 1- In magnets, like poles ..... and dislike pole .....
- 2- The magnetic concert rated at the ..... of magnet.



➤ **What happens when:**

1- The magnet is hanged freely to move.

.....

.....

2- The north pole of a magnet gets near a south pole of other magnet.

.....

.....

3- You spread the iron filling around a magnet.

.....

.....

magnetic field

المجال المغناطيسي

magnetic force

القوة المغناطيسية

iron filings

## Lesson 3: magnetism:

### Compass

#### Lesson Contents:

- Compass structure: .....
- .....
- Compass is used to: .....
- .....
- How can you make a model of compass: .....
- .....
- .....

#### Evaluation:

- The compass is used to locate (determine) the main four directions (why).

.....

.....

.....

.....

.....

➤ **Complete:**

1- The north pole of this magnet refers to .....

direction of the earth and South Pole refers to .....

direction of earth.

2- The compass is ..... that takes .....

direction which ..... direction.

I dertify

يحدد

cork

فلين

float

يطفو

basin

حوض

locate

يحدد

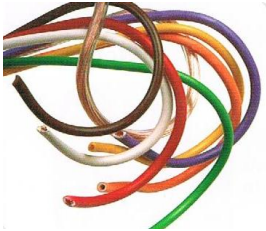
**Lesson 4:****(The magnetic effect of the electric current)****Electromagnet****Lesson Contents:**

- Electromagnet: .....
- .....
- When electric current passes through a twisted wire around iron bar, the iron bar becomes .....
- The magnetic force of electromagnet can be increased by:
  - 1) .....
  - 2) .....

**Evaluation:****➤ Complete:**

- 1- Electromagnet is a magnet which made by .....
- 2- Increasing the number of ..... makes the  
electromagnet stronger.

➤ **Use the following tools to make electromagnet and draw it:**



➤ **Correct The words between brackets:**

- 1- The magnetic field can be generated by (water) current

.....

- 2- The (Natural magnet) is used in which .....

- 3- The electromagnet has (3poles) .....

electromagnet

مغناطيس كهربى

coiling twisted

ملتف

temporary

مؤقت

intensity

شدة

**Lesson 4:****(The magnetic effect of the electric current)****Generating electric current by the magnet****Lesson Contents:**

- Dynamo (electric generator): .....
- .....
- The electric current can be generated in a coil of dynamo by:
  - 1) .....
  - 2) .....
  - .....
- The increase the amount of electricity produced by a dynamo:
  - 1) .....
  - 2) .....
  - 3) .....

**Evaluation:****➤ Complete:**

- 1- In the dynamo changes the ..... energy to  
..... energy.

➤ **Complete:**

- 1- Electric current has ..... effect.
- 2- Electromagnet converts the ..... energy into  
..... energy.
- 3- The electromagnet is used in making ..... , .....  
and .....
- 4- Dynamo changes ..... energy to .....  
energy.

Electric generator

مولد كهربى

crane

ونش

electric mixer

خلاط كهربى

huge

ضخم



**Lesson 4:****(The magnetic effect of the electric current)****Dynamo in the bicycle****Lesson Contents:**

➤ Dynamo in the bicycle consists of:

- 1) .....
- 2) .....

➤ How does it work?

- 1) .....  
.....
- 2) .....  
.....

**Evaluation:**

➤ There are 3 types of electric power stations:

- 1) .....
- 2) .....
- 3) .....

➤ **Put (√) or (×):**

- 1- Electric generator in a bicycle uses a huge magnet. ( )
- 2- The deflection of the ammeter increases by increasing the speed of motion of the coil. ( )
- 3- The dynamo in the bicycle converts kinetic energy to electric energy. ( )

➤ **What happens when:**

- 1- A bar of wrought iron surrounded by wire contains electric current.

.....  
 .....

- 2- A wire moves between two poles of magnet.

.....  
 .....

wind electric power stations

steam

natural gas

coal

محطات توليد الكهرباء

بخار

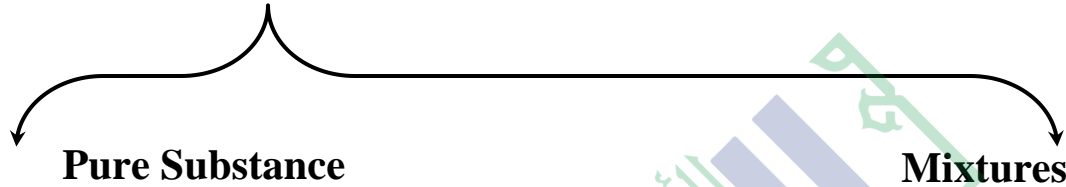
غاز طبيعي

فحم

# Unit (2)

## Lesson 1: Mixtures:

### ➤ Matter is classified into



#### Pure Substance

It is the substance that is made of only one type of identical particles

#### Mixtures

It is the substance that consists of more than one type of particles

### Lesson Contents:

#### ➤ Types of mixtures:

1- Solid - Solid mixture:

.....

.....

2- Solid - Liquid mixture:

.....

.....

3- Liquid - Liquid mixture:

.....

.....

4- Gaseous - Gaseous mixture:

.....

.....

### Evaluation:

#### ➤ What is the types mixture?

.....

➤ **Define:**

1- Pure substance: .....

.....  
.....

2- Mixture: .....

.....  
.....

3- Homogenous mixtures: .....

.....  
.....

4- Heterogenous mixtures: .....

.....  
.....

Mixture

مخلوط

Identical particles

جزيئات متماثلة

concrete

الخرسانة

homogenous

متجانس

distinguish

يميز

## Lesson 1: Mixtures:

### Properties of mixtures

#### Lesson Contents:

#### ➤ Properties of mixtures:

- 1- .....
- 2- .....
- 3- .....

#### ➤ Mixtures can be formed by:

- ..... , .....
- 1- ..... or ..... to form solid and liquid mixtures.
  - 2- ..... or ..... to form liquid mixture.
  - 3- ..... or ..... to form solid mixture.

#### Evaluation:

#### ➤ Mixtures can be formed by ....., ....., .....

➤ **Define:**

5- Pure substance: .....

.....  
.....

6- Mixture: .....

.....  
.....

7- Homogenous mixtures: .....

.....  
.....

8- Heterogenous mixtures: .....

.....  
.....

heterogenous

غير متجانس

separately

منفصلاً

react

يتفاعل

shaking

رج

stirring

تقليب

grinding

طحن

## Lesson 1: Mixtures:

### Separation of the mixture

#### Lesson Contents:

- The ways of separation are:

- 1- .....
- 2- .....
- 3- .....
- 4- .....

- To separate solid- liquid mixtures by .....  
or .....
- To separate solid mixture by .....
- To separate heterogeneous liquid (water - oil) mixture by .....  
.....

#### Evaluation:

- **Mention how you can separate the following mixtures:**

- 1- Sand and iron filings .....
- 2- Salt, sand and water .....
- 3- Oil and water .....



➤ **Complete the following:**

- 1- When you mix or more kinds of matter together they form ...  
.....
- 2- Magnetic attraction used to separate ..... mixtures.
- 3- ..... is an example for pure substances.
- 4- ..... is an example for homogenous mixture.
- 5- ..... is an example for heterogeneous mixtures.

➤ **Give reason for:**

- 1- Salt and water mixture is homogenous mixture.  
.....  
.....
- 2- Some mixtures can be separated by separating funnels.  
.....  
.....

funnel

قمع

filter paper

مدقة ترشيح

separating funnel

قمع فصل

magnetic attraction

الجذب المغناطيسي

## Lesson 2: Solutions:

### Solutions:

- They are a special type of mixtures.
- They are homogenous mixture.
- They are liquid mixtures.

### Lesson Contents:

➤ **There are two types of mixtures:**

1- Homogenous mixture:

.....

2- Heterogeneous mixture:

.....

➤ **Making a solution:**

Solutions are formed when adding a solute to a solvent:

1- Solute is: .....

.....

2- Solvent is: .....

.....

### Evaluation:

Solution is: .....

Solubility: .....

➤ **Complete the following:**

- 1- Solvent + solute  $\xrightarrow[\text{Process}]{\text{.....}}$  .....
- 2- Solution is a type of .....
- 3- ..... is the common solvent.
- 4- For examples of solvent ....., ....., .....
- 5- ..... is considered as a solute.

➤ **Determine which of them is a solution and which is a suspended solution.**



mud in water



salt water



tea



orange juice

chocolate milk

apple juice

solvent

مُذِيب

solute

مُذَاب

solubility

ذوبان

suspension

معلق

## Lesson 2: Solutions:

### Soluble and insoluble substance:

#### Lesson Contents:

- Soluble substance: .....
- .....
- Insoluble substance: .....
- .....
- Factors affecting the solubility process:
  - 1- .....
  - 2- .....
  - 3- .....
  - 4- .....

#### Evaluation:

- **Complete:**
  - 1- By increasing the quantity of solvent the solubility .....  
and by decreasing the quantity of solute the solubility .....
  - 2- By increasing the temperature, the dissolving time .....
  - 3- Stirring ..... the speed of the solubility.
  - 4- The solubility process depend on .....

➤ **Put (✓) or (×):**

- 1- Solubility decreases by shaking and raising temperature. ( )
- 2- Solubility increases by grinding the solid solute. ( )
- 3- Adding in soluble substance to a certain solvent forms a homogenous mixture. ( )
- 4- The solubility doesn't depend on the temperature. ( )

➤ **Give reason for:**

- 1- No mixing happens when adding sand to water.  
.....
- 2- The time of dissolving sodium chloride is differing from time of dissolving sodium carbonate.  
.....

Vice verse  
dissolving

العكس بالعكس  
زمن الزمان

## Lesson 2: Solutions:

### Soap:

- If a globe of mustard and grease lands on your clothes, how can you pick them away and clean the clothes?
- You are going to use the soap.
- Soap dissolves in water forming a cleaning solution.

#### Lesson Contents:

- The soap solution dissolves: .....
- .....
- .....

#### Evaluation:

- How does the soap work?

.....

.....

.....

➤ **Answer the book P.**

Q: How does the main soap wok?

.....

.....

.....

.....

.....

.....

.....

.....

.....

.....

glob of grease

soap

ashes

mustard

dirts

rinsed away

كمية من الشحم

صابون

شوائب

مسطردة

بقع

تشطف



## Unit (3)

### environmental balance

#### Lesson 1: The relation among living organisms:

##### 1) Living organisms are divided into

Producers, Consumers, Decomposers.

#### Lesson Contents:

- There are several types of relationships among living organisms:

- 1- .....
- 2- .....
- 3- .....
- 4- .....

- Predation relation ship consists of ....., .....
- Some ways of self- defence against predation in living organism: ....., .....

#### Evaluation:

- Types of relation ships among living organism

....., ....., .....

➤ **Choose the correct answer:**

1- The animal which devoured another animal is known as the ...

(parasite – host – prey – predator)

2- The relationship between the cat and the rat is .....

(parasitism – symbiosis – mutualism – predation)

➤ **Mention the food relation ship between each of the following:**

1- Dorsera plant & insects: .....

.....

2- Cat & Rat: .....

.....

3- Living which make camouflage: .....,

..... , .....

mimicry

التنكر

enemies

اعداء

camouflage

الخداع

chameleon

الرياء

# Lesson 1: The relation among living organisms:

## 2) Commensalism

### Lesson Contents:

➤ **Commensalism:** .....

.....

.....

➤ **Types of commensalism:**

1- .....

2- .....

**Example:**

1- .....

2- .....

3- .....

**Example:**

1- .....

2- .....

3- .....

### Evaluation:

➤ **Define commensalism?**

.....

.....

.....

➤ **Complete the following:**

- 1- The food relationship among cat and dog is .....
- 2- The food relationship in which both organisms benefit from each other known as .....
- 3- Some plants prey insects to get required for making .....
- 4- Sepia ejects black fluid in the surrounding water to .....

➤ **Put (✓) or (×):**

- 1- Predation is a temporary relation ship. ( )
- 2- There is no food relationships between living organisms. ( )
- 3- Chameleon ejects black colored fluid in water to hide from enemies. ( )

pollination

التلقيح

safety

امان

pollen grains

nectar

رحيق

# Lesson 1: The relation among living organisms:

## 3) Saprophytism

### Lesson Contents:

➤ **Saprophytes:** .....

.....

➤ **Examples of saprophytes:**

1- .....

2- .....

3- .....

## 4) Parasitism

➤ **Parasitism:** .....

.....

### Types of Parasitism



**Example:**

.....  
.....

**Example:**

.....  
.....

### Evaluation:

➤ **Harms of parasitism:** 1)..... 2).....

3)..... 4)..... 5).....

➤ **Qualities types of parasitism:** 1).....

2) .....

➤ **Choose the correct answer:**

- 1- Plan'ts which can't make protein substances have to prey som  
tiny ..... (insect – plants – microbes – fungi)
- 2- All the following are external parasite except .....  
(lice – lamprey – ticks – liver worm)

➤ **Give the name of the parasite that causes the following diseases:**

- 1- elephantiasis: .....
- 2- Malaria: .....
- 3- Bilharzias is: .....
- 4- Small box: .....

saprophytes  
bread mold fungus  
decomposers  
elephantiasis  
bilharzias is  
small box

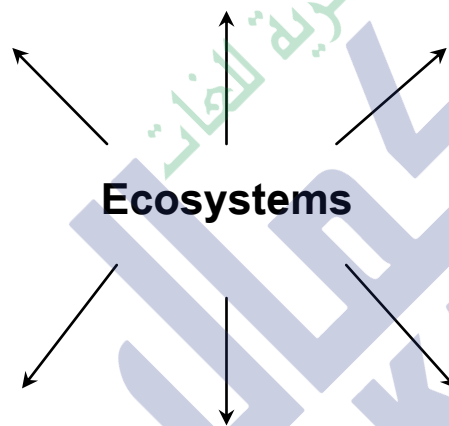
كائنات مترمة  
فطر عفن الخبز  
كائنات محللة  
مرض قدم الفيل  
البلهارسيا  
مرض الجدري

## Lesson 2: environmental balance

### ➤ The ecosystem:

It is any natural including living organisms (plant – animals) and living things.

### Lesson Contents:



### ➤ Ecosystem has different sizes:

- 1- .....
- 2- .....
- 3- .....

### Evaluation:

### ➤ Define ecosystem.

.....

.....

.....



➤ **Answer the book P.**

Watermark: KAMAL KANAL AL ARABIAN LANGUAGE INSTITUTES

among

balances

stable

interaction

unified

## فیما بین

## ثابت

موحد

## متوازن

**تفاعِل**

## Lesson 2: environmental balance

- **Environmental balance:** it is the balance among the components of the ecosystem.

### Lesson Contents:

- **Factors that harm (disturb) the environmental balance:**

1- .....

.....

.....

2- .....

.....

.....

- **Factors that keep the environmental balance:**

1- ..... 2- .....

### Evaluation:

- **Saprophytism is:** .....
- .....
- .....

➤ **Complete the following:**

- 1- Some human activities as ..... lead to destroy the ecosystem.
- 2- Green plants are .....
- 3- Decomposers are considered the ..... Of nature.
- 4- ..... relationship organize the number of preys in ecosystem.

➤ **What happen when:**

- 1- Cutting down of trees: .....
- 2- Absence of preys in ecosystem: .....
- 3- Chemical elements are not recycled by saprophytes: .....

disturbance

interference

imbalance

eroding

reproduce

cutting down trees

insufficient

إضطراب

تدخل

عدم إتزان

تأكل

تكاثر

القطع الجائر للأشجار

غير كاف

Date: -- / -- / ----

# Quiz (1)



Date: -- / -- / ----

## Quiz (2)



Date: -- / -- / ----

# Quiz (3)



Date: -- / -- / ----

## Quiz (4)





Date: -- / -- / ----

# Quiz (5)



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# Quiz (6)



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## Quiz (7)



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## Quiz (8)



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# Final Revision

## First Term

