

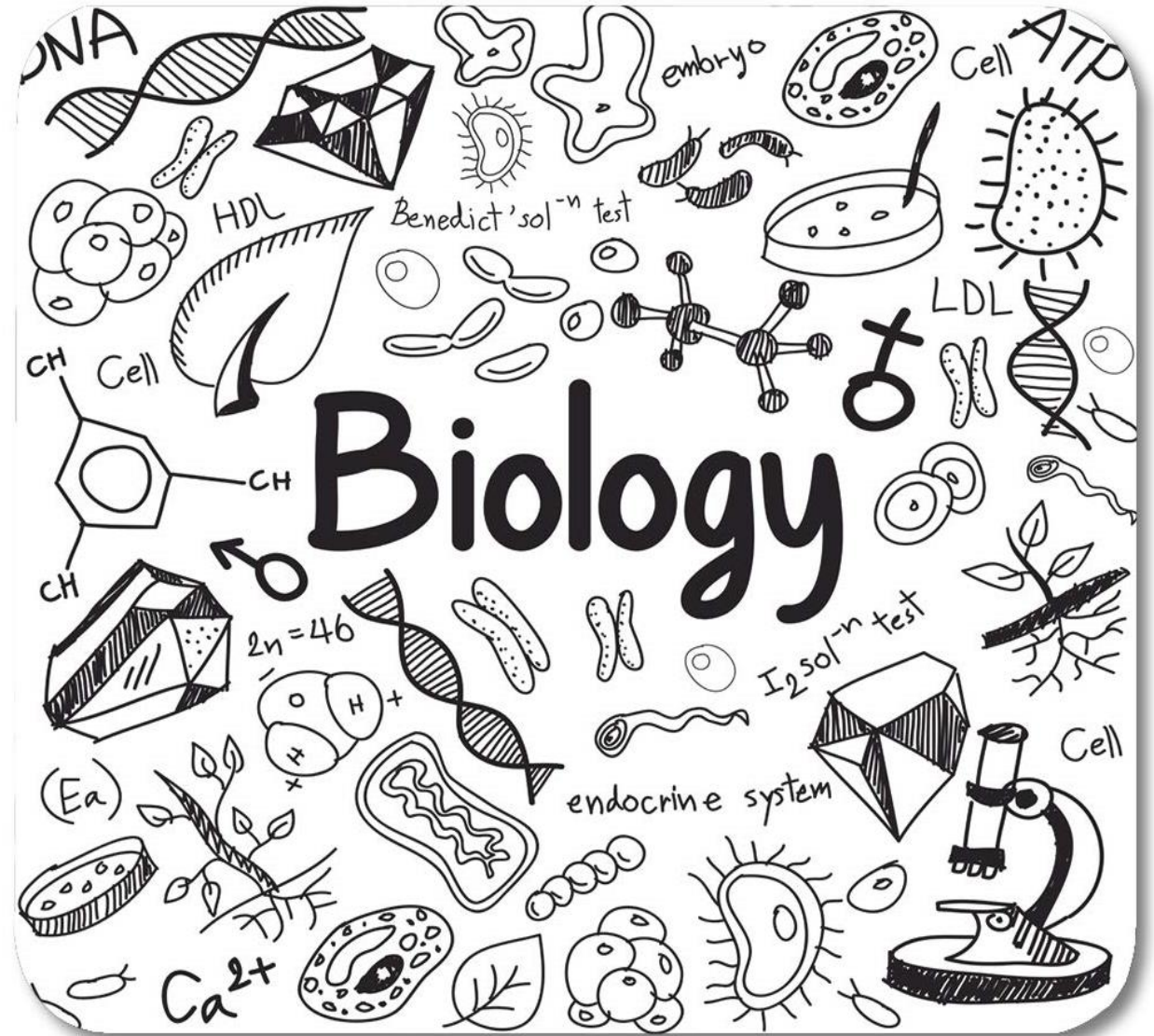


The National  
Orthodox School  
Shmaisani

## Deficiency diseases.

Scholastic Year: 2022-2023

Grade: 7CS



Objective : Recall some of the main role of specific vitamins and minerals .

Resources :

Book page 99.

Work book page 45

Study sheet : ***Nutrient Deficiency***

Deficiency means **lack of** .

**Watch the video to understand the meaning of deficiency of some nutrients :**

<https://www.youtube.com/watch?v=WdcD9LsDiPY>

<https://www.youtube.com/watch?v=uqrjOS2xYrQ>

A deficiency disease is a disease caused by a **lack of dietary elements (nutrients)**. Deficiency diseases can often be cured by supplying the missing nutrient. Examples of some deficiency diseases and their symptoms are mentioned in the table below.

Nutrient deficiency	Name of the disease	Symptoms of the disease	Good food sources of the nutrient
Vitamin C	Scurvy	Bleeding gums .	Orange , lemon , guava
Vitamin B1	Beriberi	Partial paralysis and mental confusion .	Brown rice , potato, milk
Vitamin D	Rickets	Bones become soft and leg bones of children may bend .	Egg yolk, butter, cod – liver oil. Note : vitamin D is made when the skin is exposed to sunlight .
Protein	Kwashiorkor	Muscle shrinkage and a swollen belly .	Meat, chicken, fish ,lentils
Vitamin A	Night blindness	- Cannot see in dim light	Dairy products and fish
Iron	Anaemia	- Tiredness - Painful sores. - Weak nails	Meat, chicken, green leafy vegetables

**Rickets** is caused by a deficiency of **Vitamin D**

Normal



Rickets



**Scurvy** is caused by a deficiency of **Vitamin C**



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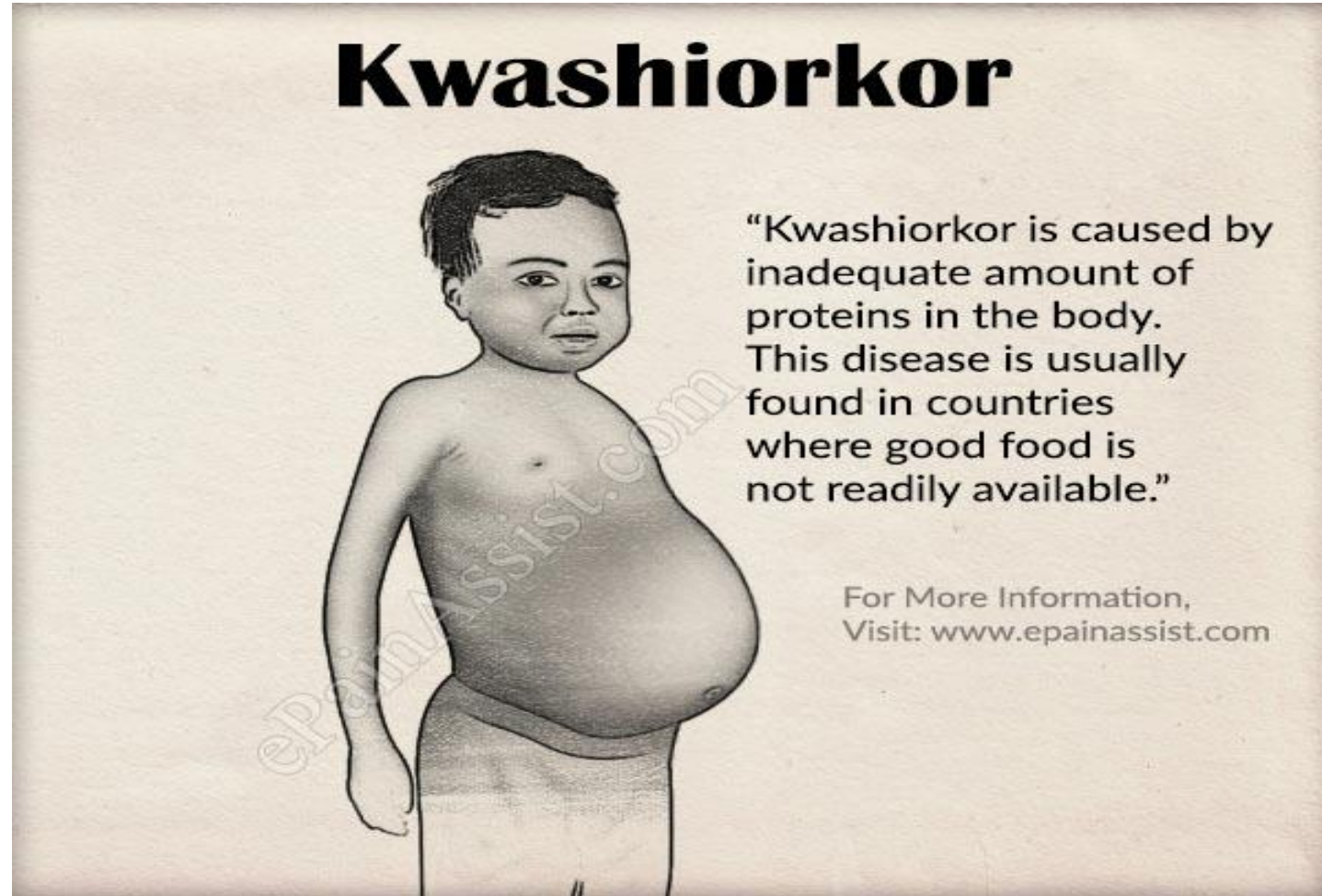
## Scurvy

It is a disease that is caused by a deficiency of vitamin C or ascorbic acid in the diet.

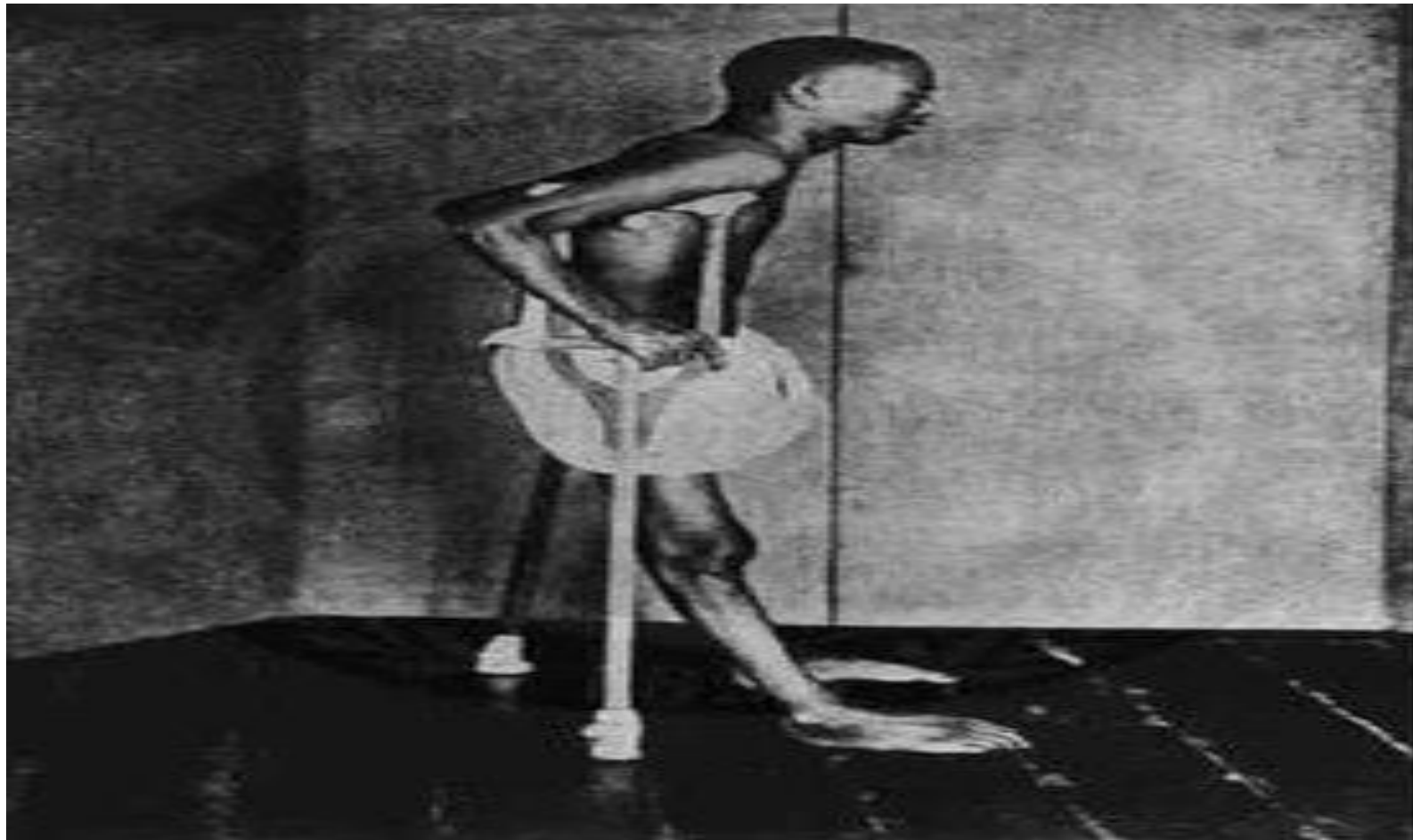


ePainAssist.com

**Kwashiorkor** is a disease caused by deficiency of **Protein**



**Beriberi** is a disease caused by deficiency of **Vitamin B1**





**Anaemia** is a disease caused by deficiency of **Iron**



## Workbook page 45

**Q2.** Anaemia – iron

Kwashiorkor – protein

Scurvy – vitamin C

Beri-beri – vitamin B1

Rickets – vitamin D

Night blindness – vitamin A

2 Draw lines to match each deficiency disease to the missing nutrient.

Deficiency disease	Missing nutrient
Anaemia	Protein
Kwashiorkor	Vitamin C
Scurvy	Iron
Beri-beri	Vitamin A
Rickets	Vitamin B1
Night blindness	Vitamin D

## Workbook page 45

**Q3.** a. Anaemia.

b. Night blindness.

c. Scurvy.

d. Beri-beri.

e. Rickets.

f. Kwashiorkor

3 Read what each patient says and decide which deficiency disease they have.

a I feel tired all the time and my friends say I look quite pale. ....

b I can't see in the evenings but my vision is fine in sunlight. ....

c My gums are bleeding and my teeth have started to fall out. ....

d I get confused and find it hard to move my legs. ....

e I've broken my arm and my legs bend outwards at the knee. ....

f My legs are very thin but my tummy and feet are swollen. ....

## **E page 45:**

a. Hassina may have **scurvy and anaemia**.

b. Scurvy would cause bleeding gums.

Anaemia would cause tiredness, painful sores in her mouth, and weak nails.

## Page 99 Q.3,4,5

**Q 3.** Vitamin C is found in fruits and vegetables. Sailors could not take these on long voyages as they would rot. They are also expensive.

**Q4.** Lemon juice contains vitamin C (which prevents scurvy) but it is destroyed by boiling.

**Q5.** Vitamin D is made when skin is exposed to sunlight. Countries further from the equator get less sunshine so people there are more likely to have a vitamin D deficiency.

- Q**
- 1 Explain what a deficiency disease is.
  - 2 Draw a table that shows:
    - some nutrient deficiency diseases
    - the main symptoms of each disease
    - the missing nutrient which causes each disease.
  - 3 Suggest why early sailors didn't get enough vitamin C on long voyages.
  - 4 Explain why lemon juice cured them but boiled lemon juice didn't work.
  - 5 Explain why vitamin D deficiency is more common in countries further away from the equator.
  - 6 How did Casimir Funk collect evidence to support his ideas?

- !**
- Scientists use creative thinking to develop new explanations
  - Their ideas need to be tested to check there is evidence to support them
  - When people don't get enough of an essential nutrient they may develop a deficiency disease.
  - Deficiency diseases can often be cured by supplying the missing nutrient.