



3055 BA SANGAM COLLEGE

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Worksheet 15

School: Ba Sangam College

Year:12

Subject: Home Economics

Name: _____

Strand	2 HEC 12.2 Food and Nutrition
Sub strand	HEC 12.2.3 Diet and Health
Content Learning Outcome	HEC 12.2.3.1 Explore the utilization of micronutrients and the effects of malconsumption by individuals.

FUNCTIONS OF MINERALS	DIETARY SOURCES	FACTORS WHICH HELP ABSORPTION
	PRINCIPAL MINERAL ELEMENTS	
Calcium Necessary for: <ul style="list-style-type: none">✓ development of strong bones and teeth.✓ normal clotting of blood.✓ normal functioning of muscles and nerves.	Milk, cheese Tinned fish (of which bones are eaten) Green vegetables, fortified flour, hard water.	<ul style="list-style-type: none">✓ Vitamin D. ample supply through diet/sunlight is necessary.✓ Phosphorous, an essential ingredient in calcium phosphate, must be available in correct proportion.✓ Parathormone: a hormone produced in parathyroid in the neck controls the calcium balance in the blood.✓ Vitamin C (ascorbic acid) is useful in absorption because acid environment improves solubility.
Phosphorous <ul style="list-style-type: none">✓ Necessary for bone and tooth formation.✓ Essential component of DNA which determines heredity.	Meat, Fish, Eggs, Dairy product, Whole cereals, green vegetables	Absorbed more efficiently than calcium, 70% is absorbed through intestine. <ul style="list-style-type: none">✓ Needs calcium, vitamin D and activity of parathyroid hormone (PTH) which

<ul style="list-style-type: none"> ✓ Essential component of cell, blood, many enzymes and hormones. ✓ Necessary for all metabolism. ✓ Forms part of the ATP and ADP which are involved in energy in the cells. 		<p>regulates metabolism of phosphorous and calcium.</p> <ul style="list-style-type: none"> ✓ Most is deposited in the bones; a little goes to the teeth. Rest is contained in the Red Blood Cells. ✓ Absorption may be decreased by antacids, iron, aluminum, magnesium which may form insoluble phosphates and be eliminated in the faeces. ✓ Caffeine causes increased phosphorous excretion.
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Activity

1. State the function of the following nutrients: (4 marks)

i. Calcium-

ii. Phosphorous-

2. Write down the nutrient's dietary sources; (2 marks)

Calcium-_____

Phosphorous-_____

3. State some factors of the absorption from the following mineral;

Calcium-

Phosphorous-
