**Year 8 Summer 1**

**Independent learning pack Week 3**

**Week 3 - Food Groups and Diet**

1. Fill in the missing gaps in the table below:

|  |  |  |  |
| --- | --- | --- | --- |
| **Nutrient** | **Why do you need it?** | **Foods where it is found (sources)** | **What happens if you don’t get enough? (deficiency)** |
| Protein | Nutrient your body uses to build new tissue for growth and repair. | Meat, fish, eggs, dairy products, beans, nuts and seeds. |  |
|  |  | Oils, butter |  |
| Carbohydrates | The body’s main source of energy. There are two types: simple (sugars) and complex (starch). |  |  |
| Vitamins e.g. Vitamin C | Helps bind cells together. |  | You can get scurvy (bleeding gums, bruising, tender skin) |
| Minerals e.g. iron |  | Needed to make red blood cells |  |
| Minerals e.g. calcium |  | Milk, cheese, green vegetables |  |
| Fibre | Parts of plants that cannot be digested, which helps the body eliminate waste. |  | You get constipated – are unable to go to the loo. |

Maximum 11 marks

2. Use the table above to help state which nutrient the following people are deficient in and what foods they need to eat to improve their health:

a) A group of sailors are suffering from scurvy, the appearance of red dots on their skin, bleeding and swelling of the gums. Their teeth are even falling out! (2)

………………………………………………………………………………………………………………………………………………………………………………………..

b) A child is taken to hospital with a shortness of breath, lack of energy and pale complexion due to anaemia. (2)

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Use the table above to help explain why:

b) Young children should drink a pint of milk a day. (2)

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c) Bruce the body-builder choices to eat large portions of chicken, fish and lentils every day. (2)

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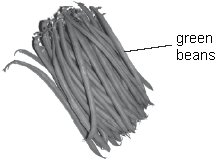
d) Why pregnant woman need more carbohydrates. (2)

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Maximum 10 marks

**Q3.**

(a)     Green beans contain vitamin C.



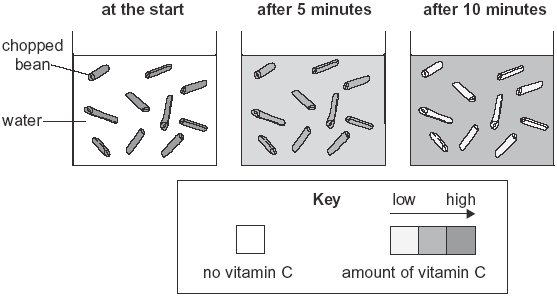
          Which other food is a good source of vitamin C?  
Tick the correct box.

                      cheese                chicken                  eggs                  oranges

1 mark

(b)     The amount of vitamin C changes in the beans and in the water as the beans are cooked. The shading shows how it changes.



          Use the diagram. How does the **amount of vitamin C** in the beans and in the water change as the beans are cooked? Tick one box in each row.

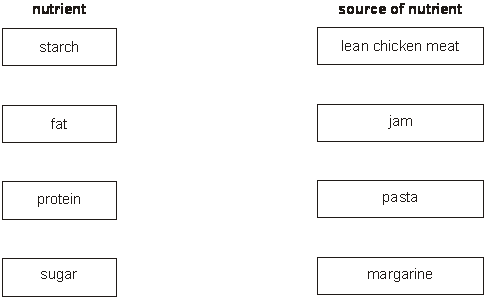
|  |  |  |  |
| --- | --- | --- | --- |
| **amount of vitamin C** | **increases** | **decreases** | **stays the same** |
| in the beans |  |  |  |
| in the water |  |  |  |

1 mark

(c)     Cheese is a source of calcium.

          Why do we need calcium?

........................................................................................................................ 1 mark

(d)     Draw a line from each nutrient to a good source of that nutrient in our diet.

2 marks

maximum 5 marks

Total Marks = / 25

Red = < 8

Yellow = 9 – 15

Green = 16 - 25

**Extension**

**Q1.**

**Table 1** gives information about 100 g of five different foods.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **food** | **energy per 100 g** | **nutrients per 100 g of each food** | | | |
|  | **of food (kJ)** | **protein  (g)** | **fat  (g)** | **carbohydrate (g)** | **calcium (mg)** |
| **banana** | 403 | 1.2 | 0.3 | 23.2 | 6 |
| **wholemeal bread** | 914 | 9.2 | 2.5 | 41.6 | 54 |
| **butter** | 3031 | 0.5 | 81.7 | 0 | 15 |
| **cheese** | 1708 | 22.5 | 34.4 | 0.1 | 720 |
| **milk** | 275 | 3.2 | 3.9 | 4.8 | 115 |

(a)     Look at **table 1**.

(i)      Which of the four **nutrients**, protein, fat, carbohydrate or calcium, provides  
 most of the energy in the cheese?

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(ii)     Which of the four **nutrients** provides most of the energy in the wholemeal  
 bread?

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(iii)     Which of the four **nutrients** is needed for growth and repair?

................................................................................................................ 3 marks

(b)     The recommended daily amount of protein for a woman is 45 g. Look at **table 1**.  
 How many grams of cheese would provide 45 g of protein? Tick the correct box.

50 g  100 g    150 g   200 g   1 mark

(c)     **Not** all the types of nutrients needed for a balanced diet are shown in **table 1**.

          Give the name of **one** of the missing types of nutrient.

............................................................. 1 mark

(d)     **Table 2** shows the recommended daily amount of calcium for a person in four  
stages of the human life cycle.  
We need calcium for healthy teeth and bones.

|  |  |
| --- | --- |
| **person** | **recommended daily amount of calcium (mg)** |
| a baby aged 6 months | 600 |
| a woman before she is pregnant | 500 |
| a pregnant woman | 1200 |
| a breast-feeding woman |  |

(i)      Use information in **table 2** to estimate how much calcium a breast-feeding  
woman should have each day.

............. mg

(ii)     Explain why she would need this amount of calcium.

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................................................................................................................ 2 marks

maximum 7 marks

Total Marks = / 32

Red = < 15

Yellow = 16 – 23

Green = 24 - 32

**Knowledge Quiz**

|  |  |  |
| --- | --- | --- |
| **Topic:** | | **Food** |
| **1** | Name the 7 food groups | Carbohydrates, proteins, fats, fibre, vitamins, minerals, water |
| **2** | State 2 examples of food rich in carbohydrates | Rice and pasta |
| **3** | State 3 examples of food rich in protein | Fish, meat and eggs |
| **4** | State 3 examples of food rich in fat | Butter, cheese and chocolate |
| **5** | State 3 examples of food rich in minerals and vitamins | Fruit and vegetables |
| **6** | State 2 examples of food rich in fibre | Brown bread and cereal |
| **7** | Define "balanced diet" | Eating a variety of foods in the correct proportions |
| **8** | State three diseases associated with an unbalanced diet | Obesity, anorexia and Type 2 diabetes |
| **9** | Define "anorexia" | Refusing to eat to lose weight |
| **10** | Give three reasons why someone may need to consume more calories than normal | 1) very active, 2) growing, 3) pregnant |