



SUBJECT:-Science

Class VI

CHAPTER:-COMPONENTS OF FOOD .

GUIDELINES:

Dear Students

- Refer to the following content of the chapter : Components of Food .
- These notes will help you understand the concept of the lesson.
 - Complete the assignment that follows, which will be graded on submission.
- Do the assignment questions in the science notebook
- Watch the videos related to the subtopics for which the links have been provided to you for further clarification.
- You learned about protective foods in the previous e-lesson. In this lesson, let's study the energy giving foods and food tests.
- You may follow the given link/PDF to refer to Class 6 Science NCERT/LIVING SCIENCE BOOK FOR THIS CHAPTER which is uploaded on the website.

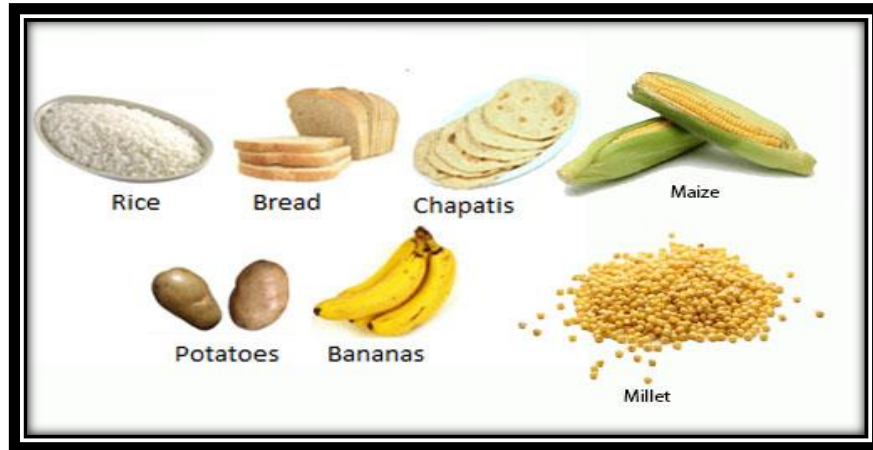
<http://ncert.nic.in/textbook/textbook.htm?fesc1=2-16>

SUB TOPICS:

- **ENERGY GIVING FOODS**
- **FOOD TESTS FOR DETECTING THE PRESENCE OF FATS/ PROTEINS/ CARBOHYDRATES IN FOOD ITEMS**

ENERGY RICH FOODS: These food items are rich in carbohydrates and fats.

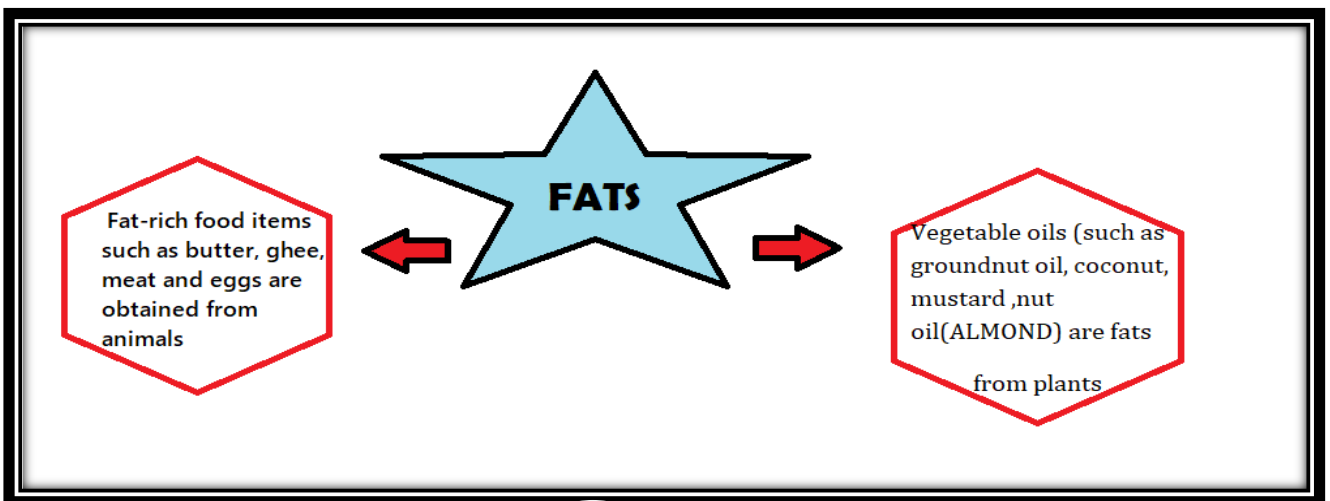
❖ Foods rich in carbohydrates:-



FAT RICH FOODS

<p>Saturated Fat Foods</p> <p>Cheese</p> <p>Chocolate</p> <p>Coconut Oil</p>	<p>Unsaturated Fat Foods</p> <p>Canola Oil</p> <p>Avacado</p> <p>Olive Oil</p> <p>Corn Oil</p> <p>Soybean Oil</p> <p>Peanut Oil</p>
<p>Trans Fat Foods</p> <p>Cake</p> <p>Doughnuts</p> <p>Crackers</p> <p>Cookies</p>	<p>Cashews</p>

- **Sugar and starch are carbohydrates.**
- **Sugar releases energy faster as compared to foods rich in starch.**



Fact time

- **We** must avoid eating excess fats as it may make us obese (overweight) and can lead to several health problems.
- **Fats** are stored under the skin and around the heart and kidneys.
- The fats stored in our body, also help to keep us warm.
- One gram of fat releases twice the amount of energy released by same amount of carbohydrates.

Now, watch the given video for further clarity:

<https://www.youtube.com/watch?v=HCBicmZWBS4>

TIME FOR FOOD TESTS:

Test for Fats

Fat is a major source of energy and also aids your body in absorbing fat soluble vitamins.

Follow these steps to find out whether a food item contains fats.

1. Take a small quantity of the food item to be tested.



Fat rich foods

2. Wrap the food item in a piece of paper and crush it.
3. Straighten the paper.
4. Dry the paper by keeping it in sunlight for a while.
5. Observe the paper.
6. An oily patch on the paper indicates the presence of fats in the tested food item.

Watch the video for further clarity:

<https://www.youtube.com/watch?v=wpCtf2aqjs8>

Test for Starch

There are many types of carbohydrates. The main carbohydrates found in our food are in the form of starch and sugars. We can easily test if a food item contains starch by following these steps:

1. Take small quantity of the food items to be tested.
2. Put 2-3 drops of iodine solution to it.
3. Observe the colour of the food item.
4. Blue-black colour indicates the presence of starch in the tested food item.

Watch the video for further clarity:

<https://www.youtube.com/watch?v=SgDeHXWm8Hk>

Test for Protein

Proteins are needed for the growth and repair of our body. Foods containing proteins are often called 'Body Building Foods'. Test if a food item contains protein.



Protein rich foods

Take a small quantity of the food items to be tested.

1. Grind/mash/paste/powder the food item.
2. Put the food item into a test tube.
3. Add 10 drops of water and shake the test tube.
4. Using a dropper add two drops of copper sulphate solution to the test tube.
5. Add 10 drops of caustic soda solution and shake the test tube.
6. Observe the colour of the mixture.
7. Violet colour indicates the presence of proteins in the tested food item.

Watch this video for further clarification

<https://www.youtube.com/watch?v=x78HwOFCWnw>



ASSIGNMENT:-

Before learning about deficiency diseases and balanced diet, attempt these questions in your notebook:-

Q1. (A) Fill in the blanks:

1. _____ provides energy faster than starch.
2. Obesity occurs due to overeating of _____.
3. Excess fat is stored under the _____.

(B) Given below are the steps to test the presence of proteins in a food item:

- (i) Take a small quantity of the food item in a test tube, add 10 drops of water to it and shake it.

- (ii) Make a paste or powder of food to be tested.
 - (iii) Add 10 drops of caustic soda solution to the test tube and shake well.
 - (iv) Add 2 drops of copper sulphate solution to it.
- Which of the following is the correct sequence of the steps?
- (a) i, ii, iv, iii (b) ii, i, iv, iii (c) ii, i, iii, iv (d) iv, ii, i, iii

Q2. Pick the odd one out and give reason:

Sugar, Ghee, Cheese, Groundnut oil

Q3. We must avoid eating excess of junk food. Justify the statement by giving two points.

Q4. State any 3 carbohydrate rich and 3 fat rich foods that you enjoy eating the most.

Q5. The food sample leaves an oily stain if it is crushed between folds of a filter paper. What nutrient does the food sample contain?

Q6. Shaurya, a student of Class VI, due to his misbehaviour in school, was asked to sit in the science laboratory during lunch break. While eating his sandwich, he dropped a bottle of some chemical solution in his lunch box. The colour of the bread changed to blue black.

- a) Identify the chemical solution.
- b) Identify the nutrient present in bread responsible for the colour change.
- c) Give two examples of food items containing this nutrient (other than bread).

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