

Activity Number- 2

Test for Nutrients

Class :VI

Subject: Science

Duration – 30minutes

Nature of activity : Individual

Learning Outcome : Students will be able to

-**examine** the presence of nutrients (**carbohydrates and proteins**) in food items.

-**analyse** that nutrients are the components of food that our body needs in adequate amount for proper growth , to reproduce and to lead a normal healthy life.

What I have to do ? To test the presence of starch , protein and fat in the given sample of food.

What I require ? petri dish , test tube , dropper , copper sulphate , caustic soda , raw potato , boiled rice ,dilute iodine solution , milk.

What do I need to know ? Food is required for the growth of the body. Food gives us energy to work and play.It gives us resisting power against diseases. The main components of food are carbohydrates , proteins , fats , vitamins ,minerals , fibre and water.

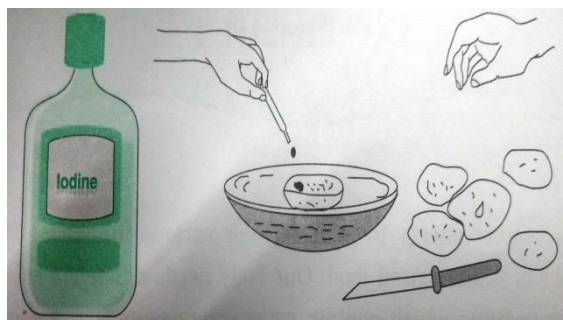
Test for starch

Teacher's Activity: Teacher will arrange the apparatus required to perform the test and guide the students for the same.

How will I proceed ?

Student's Activity: Students will :

- (1) take 2-3 small pieces of potato in a petri dish.
- (2) put two to three drops of dilute solution of dilute iodine solution on it.



What have I observed :

S.No.	Material	Colour of the food item after putting drops of dilute iodine solution
1	Sliced potato	
2.	Boiled rice	

What have I learnt ? If the colour of the food material changes in blue-black after putting drops of dilute iodine solution , it contains _____ in it.

Test for Protein

Teacher's Activity: Teacher will arrange the materials required to perform the test and guide the students for the same.

Student's Activity: Students will :

- (1) take 10 mL of milk in a test tube.
- (2) now add two-three drops of solution of copper sulphate solution and 10 drops of solution of caustic soda to the milk in the test tube.

What have I observed :

S.No.	Material	Colour of the milk after putting drops of copper sulphate solution and caustic soda
1	Milk	

What have I learnt ? If the colour of the food material changes in violet after putting drops of copper sulphate solution and caustic soda, it contains _____ in it.

What I would be interested / curious about ? Does besan/wheat gives a positive test for proteins?

Extended learning worksheet

1. Tick the correct option :

a) Which of the following is a nutrient ?

- | | |
|-------------|----------------|
| a) fats | b) proteins |
| c) minerals | d) All of them |

2. Food materials that turn blue black on addition of iodine solution confirm the presence of _____

- | | |
|-----------|-------------|
| a) fats | b) proteins |
| c) starch | d) vitamins |

3. Which of these provide energy ?

- | | |
|------------------|-------------|
| a) minerals | b) proteins |
| c) carbohydrates | d) vitamins |

4. Foods rich in proteins are called _____ foods.

- | | |
|------------------|------------------|
| a) energy giving | b) body building |
| c) protective | d) nutritious |

5. The colour of iodine solution is

- | | |
|------------------|---------------|
| a) reddish brown | b) violet |
| c) purple | d) blue-black |