

ACTIVITY NO.– 2:HOW TO TEST THE PRESENCE OF SUGAR IN FOOD ITEMS?

Subject	Science
Class	VI
Chapter/Unit	Components of food
Topic	Test for sugar
Time	40 mins
Nature of Activity	Individual/Group

What will I learn ?(Learning Outcome)?

To explore that nutrient is a substance that provides nourishment essential for the maintenance of life , for growth ,to reproduce and to lead a normal healthy life. Sugar is a form of carbohydrate that givesus energy.

Skills: Applying,Evaluating

What I have to do? ?

To test the presence of sugar in the given sample of food

What do I require? :

Test tubes, tongs, water bath, water, apple, potato,Benedict's solution,dropper.

What do I need to know?

We all should eat a balanced diet in order to live a healthy life. The components of a balanced diet are - carbohydrates, fats, proteins, vitamins and minerals. The presence of each component in our food can be tested using various methods.Benedict's solution is used to test for simple sugars, such as glucose. It is a clear blue solution of sodium and copper salts. In the presence of simple sugars, the blue solution changes color to green, yellow, and brick-red, depending on the amount of sugar.

➤ Teacher's Activity:

Teacher will

- (1) explain how do we test the presence of sugar in a given food sample
- (2) ask students to wear lab coats and arrange the material required for the activity
- (3) divide the class into different groups.

How will I proceed?

➤ Student's Activity:

Students will

- (1) mix small amount of each food sample(potato and apple) with distilled water in two different test tubes to make a test liquid.
- (2) add 40 drops of each liquid to be tested in test tubes A and B.
- (3) further add 10 drops of Benedict's solution to each test tubes A and B.
- (4) carefully heat the test tubes(in the presence of teacher) by suspending in a hot water bath at about 40-50 degrees Celsius for five minutes.

What have I observed?

S. No.	Name of the food item	Colour of the liquid initially	Colour of the liquid (after adding Benedicts solution)
1	Crushed apple solution(Test tube A)		
2.	Crushed potato solution(Test tube B)		

What have I learnt?

If sugar is present in the food item, then the solution will turn_____

What am I curious to learn?

Let us find out whether we use same reagent to test the presence of carbohydrates , fats and proteins? Why or why not ?

Let me evaluate myself

Q1.List any five food items that contain sugar ?

Q2.What is the importance of balanced diet ?

Q3.Fats are important for our body. Do you agree with this statement? Give reason to support your answer.

Q4.What is the difference between healthy food and junk food ?

Q5. Radhika loves to eat sweets and chocolates. She asks her mother for the same before and after every meal. Explain if this is an example of bad eating habit or healthy eating habit ?
