

Name: \_\_\_\_\_

Date: \_\_\_\_\_

## Food Lab: Identifying Starch

### Purpose

To identify which food contain starch

### Materials

- Little plastic cups
- Water
- Cooked pasta
- Bread
- Plain crackers
- A red tortilla chip
- Flour
- A potato
- Sugar
- Corn starch
- Eggs
- Iodine solution
- Large piece of paper

### Procedure

1. Place the class into groups of 4 (or as you see fit for the particular class)
2. Each group should receive each of the above materials
3. Each of the food ingredients should be separated into little plastic cups, to make distribution to the class easier.
4. The water will act as the control variable in this experiment.
5. Complete Chart 1 with your predictions on which foods you think contain starch.
6. Place each of the food samples in the plastic cups on a large piece of paper and label the spot on the paper with the name of the food item. Please refer to Figure 1.
7. Add a few drops of the Iodine solution to each of the food samples.
8. Observe the colour of each of the food items after the iodine is added.
9. Record these observations in chart 2.
10. Foods which contain starch will turn the iodine solution blue when it is added. This is because starch forms an unstable complex which is blue coloured when in the presence of iodine.

Water	Cooked pasta	Bread	Red tortilla chip	Flour
Potato	Sugar	Corn starch	Egg	Plain cracker

Figure 1: Arrangement of food items on piece of plain paper.

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### Predictions

Chart 1: Predictions for which food items contain starch.

Food item	Prediction
Cooked pasta	
Bread	
Red tortilla chip	
Flour	
Potato	
Sugar	
Corn starch	
Egg	
Plain cracker	

### Observations

Chart 2: Observations of which foods turned the iodine solution a dark blue colour.

Food item	Observation
Cooked pasta	
Bread	
Red tortilla chip	
Flour	
Potato	
Sugar	
Corn starch	
Egg	
Plain cracker	

### Questions

1. Compare your predictions with the results you obtained. Were you correct? Where did you go wrong?
2. Why would foods containing starch leave change the iodine solution to a dark blue colour? Conduct some research and reference at least 1 peer-reviewed publication.