

Microbe Magic Experiments

<http://microbemagic.ucc.ie>

Healthy living – Do grains have carbohydrates?

Grains are the largest segment of the food pyramid. It is suggested that you eat 6 servings a day to stay healthy! Whole grains are best as they have the goodness of the entire grain - they release energy slowly and constantly. Carbohydrates (which contain starch) are found in foods like breads, rice, pasta etc... are slow energy releasers but do these foods contain carbohydrates? They the following experiment to find out!

What you will need

- Greaseproof paper
- Tincture of iodine (you can find this in some first aid kits or your chemist / pharmacy)
- Variety of food cut into slices e.g. potato, banana, tomato, apple, bread, rice, cheese, teaspoon of; sugar, pasta, any breakfast cereal, salt.....whatever you like!
- Paper
- Pencil

What to do:

- Place the foods you have chosen to test on the greaseproof paper (remember to leave lots of space between each sample).
- Place a drop of iodine onto each food.
 - **Important:** Drop the iodine onto the food. Do not touch the food with the tip of the iodine dropper. If the iodine dropper picks up a little of a starchy food from one sample, it can transfer to the next sample and indicate the presence of starch, even if there is none! This would be a *false positive* result, due to contamination.
- In the presence of the starch found in carbohydrates, iodine will turn the food a purple colour.
- Take note of the types of food that contain starch and those that do not!
- Do your grain foods contain carbohydrates?
- Do foods like rice, pasta, potatoes....lose carbohydrates when they are cooked?