

THE SCIENCE BEHIND THE SHOW

The nutrition in a diet depends on the overall balance of foods which is eaten over time, as well as the needs of the person. A healthy balanced diet will most likely include a large variety of foods from each of the food groups. This balance allows us to get all the nutrients we need.

Foods can all be allocated as belonging to one of five different groups:

- Bread, rice, potatoes, pasta and other starchy foods
- Fruit and vegetables
- Milk and dairy foods
- Meat, fish, eggs, beans and other non-dairy sources of protein
- Foods and drinks high in fat and/or sugar

A healthy balanced diet should be based on starchy foods and rich in fruit and vegetables. A variety of foods from these two groups should make up two-thirds of the food we eat. Most of the remaining third of our diet should be made up of milk and dairy foods, sources of protein and limited amounts of foods and drinks high in fat and/or sugar. These proportions are illustrated by the eatwell plate.

It's a good idea to try and achieve this balance each day, although it is sometimes easier to find the right balance over a longer period such as a week.

Our enjoyment of food is really important in a healthy balanced diet. If we are not enjoying the food we eat, we're likely to avoid it. It is our senses which help us enjoy food and drink. Taste is often thought to be the most important sense when eating, but we actually use all five of our senses: sight, hearing, touch, taste and smell. These senses help us to evaluate our food and draw conclusions as to our likes and dislikes. We love the taste of what we eat, but how does it smell? Think about the textures of food in your mouth, or the sound it makes when you bite into it and finally what does it look like?

By exploring food and drink and the way we sense it, we can develop new tastes and learn to like new foods. Our taste buds and the way we enjoy food changes as we get older, meaning that sometimes foods you didn't like as a child, you might really enjoy as an adult.



USEFUL LINKS:

www.foodfactoflife.org.uk/

EDINBURGH INTERNATIONAL
science
festival

COOK FOR IT!

WELCOME TO LIVE FOR IT!

Brought to you by Edinburgh International Science Festival and Diabetes UK Scotland, Live for It! is a programme of workshops and activities designed to help students make healthy lifestyle choices now and in the future.

WHAT WE DO

Each workshop is fully equipped and delivered by trained science communicators. We create fun, interactive environments where everyone gets out of their seats and gets involved. Our inspiring demonstrations and engaging activities are linked to the Curriculum for Excellence, explaining key concepts in a unique and memorable way.

EVENT DESCRIPTION

Cook for It! is the third workshop in the Live for It! series and encourages pupils to make healthy eating choices. Pupils try new foods and create their own healthy snacks in this hands-on cookery workshop. Building on their experiences in Eat for It! and Go for It!, pupils explore food and food labelling to help them eat a balanced diet and make healthy choices.

CURRICULUM LINKS

Cook for It! complements the following experiences and outcomes:

HWB 2-15a & 3-15a: I am developing my understanding of the human body and can use this knowledge to maintain and improve my wellbeing and health.

HWB 2-29a & 3-29a: I enjoy eating a diversity of foods in a range of social situations.

HWB 2-30a: By applying my knowledge and understanding of current healthy eating advice I can contribute to a healthy eating plan.

HWB 3-30a: By taking part in practical food activities and taking account of current healthy eating advice, I can prepare healthy foods to meet identified needs.

LEARNING OUTCOMES

- Identify the need for food hygiene and safety
- Demonstrate how to use a knife correctly
- Recall how to follow a recipe
- Describe how trying new foods can help us like different tastes or flavours
- Identify the importance of looking at labels on packaged foods.

Live for it! has been developed by Edinburgh International Science Festival with support from Diabetes UK Scotland

www.sciencefestival.co.uk/education

DIABETES UK
CARE. CONNECT. CAMPAIGN.
SCOTLAND



TASTE DETECTIVES

You will need:

- Clear plastic cups
- Cotton buds
- Sugar
- Unsweetened cocoa
- Salt
- Concentrated lemon juice



WHAT TO DO:

1. Put each substance into a different cup. Mix the non-liquids with some water so that they all have the same consistency.
2. Draw an outline of a tongue on a piece of paper. Perhaps you can look at your partner's tongue to get the right shape. This will be your tongue 'map'.
3. Dip a cotton bud into one of the liquids, then stick your tongue out and rub the cotton bud all over your tongue.

4. Make a note on your 'map' where you could taste the liquid. For example, at the front, back or sides.
5. Rinse your mouth out with water and repeat for the remaining liquids.

Discussion Ideas:

- Did everyone taste the same things in the same place?
- Create a class 'map' by collating everyone's results

EXPLANATION:

Our sense of taste protects us from unsafe foods, helps us enjoy food and helps our bodies maintain a consistent chemical balance. Liking sugar and salt for example, satisfies our need for carbohydrates and minerals, while sour foods like oranges and lemons provide us with essential vitamins.

Our mouths contain around 10,000 taste buds which detect five main tastes: sour, sweet, bitter, salty and umami (savory). Each of our taste buds contains

special receptors which check out the chemicals in food. When these receptors are stimulated they send messages to our brain. Each receptor responds best to one of the five basic tastes.

Exploring the way we taste food can help us to enjoy what we eat more. By thinking about what we eat, being curious and adventurous in trying new foods we can begin to take responsibility for our own healthy lifestyle choices.

BREAKFAST ACTIVITIES

Breakfast is a very important meal because it provides us with energy so we can concentrate, work and be active. It helps to keep us full throughout the morning and is a great way to get some important nutrients.

As a class, learn more about breakfast and its importance. You could explore:

- Use your Live for It! food diaries to record your breakfasts for a week and see how this compares across the class.
- Investigate the reasons why some people might skip breakfast. Discuss the reasons in small groups and come up with solutions.
- Explore traditional breakfasts eaten in other countries. Present it as a fact sheet or poster.

Design a poster to promote breakfast. You could include:

- The benefits of breakfast
- The variety of breakfast options available
- The importance of including a drink
- Tips to help people who sometimes skip breakfast

TOP TIPS FOR BREAKFAST

1. Make time for breakfast - just waking up 10 minutes earlier can make a big difference to your day.
2. Have a drink - go for water, milk or juice to keep you hydrated.
3. Have some fruit - start your 5 a day with some fruit on your cereal or fruit juice.
4. On the go - choose something quick and easy such as a piece of fruit or make a sandwich the night before.

