

Unit 3A Teeth and eating

ABOUT THE UNIT

Work in this unit should reinforce and develop children's knowledge of their personal health and how this relates to diet. They should learn about how teeth are related to diet and the importance of dental care.

Experimental and investigative work focuses on:

- deciding what evidence to collect
- deciding whether evidence is sufficient to support conclusions.

Work also offers opportunities for children to relate understanding of science to their personal health.

This work is likely to be undertaken in relation to the school's programme for personal, social and health education.

This unit takes approximately 12 hours.

WHERE THE UNIT FITS IN

Builds on Unit 1A 'Ourselves' and Unit 2A 'Health and growth'

Children need:

- to know that what they eat is important for keeping healthy
- to recognise a range of different foods.

Links with design and technology and geography.

VOCABULARY

In this unit children will have opportunities to use:

- words and phrases related to life processes *eg feed, feeding, growth, activity*
- words to name and describe groups of foods *eg vegetables, meat, fish, sugars and starches, fruit, fats*
- names of different teeth *eg incisor, molar, canine*
- words which have different meanings in other contexts *eg diet, root, activity, decay, evidence, conclusion*
- expressions making generalisations.

RESOURCES

- secondary sources *eg CD-ROMs, reference books* providing information about food types and diets of animals
- models of teeth or real teeth, small mirrors for examining teeth
- video about teeth
- collection of foods/food packets

EXPECTATIONS

at the end of this unit

most children will:

describe an adequate and varied diet for humans, recognising that there are many ways of achieving this; explain how they should look after their teeth and recognise why they need to do so; suggest questions about diet to be investigated; make relevant observations and present results in bar charts and tables

some children will not have made so much progress and will:

describe some of the types of food that they eat; recognise they need to take care of their teeth; make observations and record these in tables

some children will have progressed further and will also:

evaluate how strongly the evidence they have collected supports the conclusion they have drawn; state that animals have different diets and may have different kinds of teeth

LEARNING OBJECTIVES

POSSIBLE TEACHING ACTIVITIES

LEARNING OUTCOMES

POINTS TO NOTE

Revisit ideas about diet from Unit 2A 'Health and growth', asking children separate questions about what they eat and what they like to eat.

Teachers will be aware of the need for sensitivity to individual children and their families in terms of diet and health, economic and cultural circumstances and in terms of not putting too much emphasis on body image.

CHILDREN SHOULD LEARN

- that all animals, including humans, need to feed
- that animals need to feed to grow and to be active

◆ Visit a local supermarket or market to look at the range of foods available or use secondary sources and a collection of foods. Group foods into broad categories *eg meat and fish, fats, starches and sugars, vegetables, fruit*. Introduce the concept of groups of foods for particular purposes *eg some foods, particularly meat, fish, cheese, lentils, beans, supply what we need for growth; fats, sugars and starches provide what we need to be active*. Ask children to record their groupings in drawing and writing.

CHILDREN

- produce a record of the visit or work done in writing and drawing
- identify some foods 'for growth' and some foods 'for activity'

Children sometimes think that 'diets' are simply for losing weight rather than a description of food we eat regularly.

The ideas of 'food for growth' and 'food for activity' are simplifications. Children will learn more complex ideas about the functions of different food types at a later stage. Activity may need to be explained to children as related to movement and exercise.

 **SAFETY** – All off-site visits must be undertaken in accordance with LEA/school guidelines.

- that an adequate and varied diet is needed to keep healthy

◆ Present children with a collection of pictures to illustrate types of food from different cultures or invite someone *eg a vegetarian or vegan or an owner of a restaurant* whose diet may be unfamiliar to the children to visit and discuss their diet, explaining how they ensure that they have adequate amounts of food types. Ask children to describe using drawings and writing how they aim to have a balanced and varied diet. Talk with the children about different diets and explain the scientific use of the word 'diet'.

- describe a varied and balanced diet suggesting some foods that are needed for growth and some that enable us to be active

- that different animals have different diets
- to raise questions about the diet of different pets

◆ Ask children to find out using direct observation or secondary sources *eg reference books, CD-ROMs* what local/familiar animals eat. Ask them to suggest questions *eg Do all cats eat the same food? Do cats and dogs eat the same? Do animals prefer particular foods?* Ask children who have pets to talk about the preferences of their pets.

- suggest what they could find out about the diets of their pets
- identify different sorts of food eaten by the animals

Some children think that pets only eat food out of tins. They may need to be told that some pets *eg cats* can hunt for their own food.

- to turn ideas about the diet of animals into a form that can be investigated
- to decide how many animals should be investigated and the range of foods to be considered
- to present evidence about the foods eaten by animals in a suitable bar chart or pictogram
- to decide whether the evidence is sufficient to draw conclusions

◆ Decide as a class on one question to investigate *eg Do all cats eat the same food?* Discuss what evidence to collect *eg which cats should be included, and how to describe different sorts of food (fish, chicken, tinned food)*. Help children to decide how to collect and present the evidence *eg tables, pictograms or bar charts*. Talk with children about how good the evidence is *eg how many pets there were in the sample*. Decide what, if any, conclusions can be drawn.

- suggest a question in a form that could be investigated *eg Do cats eat fish, chicken, rabbit, tinned food?*
- make suggestions about the animals and foods to be investigated
- present results in a suitable bar chart or pictogram
- say what they think they can conclude from their work *eg only half the cats eat fish* and whether the evidence is good enough *eg but maybe the other cats would eat fish if someone gave it to them*

This activity offers children the opportunity to carry out a whole investigation. It may be helpful to concentrate on the aspects of investigation highlighted in the learning objectives.

Pictograms can be produced using IT (see IT Unit 1E 'Representing information graphically: pictograms').

- that humans have teeth – molars for chewing, canines for tearing, incisors for cutting – and that teeth help us to eat
- that the shape of the teeth makes them useful for different purposes

◆ Ask children about their teeth and the function of different teeth and gums. Ask them to describe which of their milk teeth they have left and let them use a mirror to look at their teeth.

- explain why it is important to look after teeth

Children often think that all animals have teeth.

 **SAFETY** – Any real teeth must be sterilised before being taken to the classroom. It is possible to obtain 'cleaned' human teeth and/or plastic models of teeth from laboratory suppliers.

LEARNING OBJECTIVES

CHILDREN SHOULD LEARN

- to make observations and comparisons of different teeth, identifying important features

- that we have two sets of teeth and adult teeth have to last

- that healthy teeth need healthy gums
- some foods can be damaging to our teeth

POSSIBLE TEACHING ACTIVITIES

- ◆ Present children with examples of teeth. Ask them to describe the teeth and say where they are found in the mouth and what makes them suitable for their purposes *eg incisors are sharp for cutting.*

- ◆ Talk with children about losing milk teeth and explain its relation to growth. Show a video about teeth and tooth decay. Ask children to draw two strip cartoons 'child loses a tooth' and 'adult loses a tooth' showing different endings.

- ◆ Invite the school nurse or other health professional to give a demonstration about cleaning teeth and its importance in preventing tooth decay and gum disease. Present children with pictures of a range of food and drinks and ask them to suggest which ones would be particularly damaging. Discuss when it is most important to clean teeth.

Review work on teeth and eating by asking children to make fact-sheets of what they have learned about their teeth, their protection and how a varied, balanced and healthy diet can be achieved in a variety of different ways.

LEARNING OUTCOMES

CHILDREN

- identify the three types of milk teeth, either from drawings or models, and explain the function of each type of tooth

- make clear *eg through a cartoon* why adult teeth have to last

- identify particular foods *eg sticky sweet foods* as damaging and others *eg carrots, apples* as less damaging
- explain why in the evening, they should not eat after cleaning their teeth before going to bed

POINTS TO NOTE

It is helpful to discuss with children the features they should look for before they begin this work.

This activity could be IT based (see IT Unit 3A 'Combining text and graphics').



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