

# Lower Key Stage 2 Life Processes and Living Things

## Introduction

This book of Science activities aims to help the busy teacher deliver high quality science lessons with as much manageable practical classroom work as possible.

This book covers all of the National Curriculum Science work on 'Life Processes and Living Things - Human Health and Growth + Growing Plants + Living Things in their Environment (including Variation and Classification) at a level suitable for **LOWER KS2**. Other books in this series cover the same work at a level suitable for Upper KS2 and KS1. Used together, these books can provide differentiated work for children of different age groups and abilities or a spiral curriculum visiting each concept at least three times in a pupil's primary school career. All the activities are cross-referenced to the QCA Science Curriculum.

Each lesson follows a similar format with the following elements:

1. A simple information sheet with questions that explores the main concept to be studied during the lesson.
2. A classroom based experiment which, on the whole, can be carried out by small groups of children working independently.
3. A simple homework sheet which reinforces the concept discussed and the knowledge gained from the experiment carried out.
4. Detailed teacher notes which list the Learning Objectives, the main points to be talked about, the equipment needed for the investigation, how the investigation should be carried out and the conclusion that can be made from it.

The book also contains simple assessment activities that can be used to help indicate the National Curriculum Level each child is working at and whole class record sheets for keeping track of the results.

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## Contents

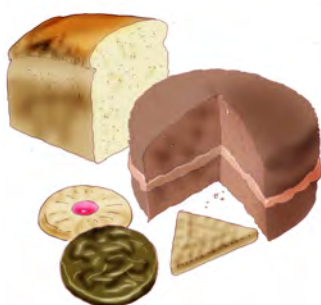
<a href="#">Notes for Teachers</a>	2
<a href="#">Scientific Investigation Attainment</a>	9
<b>Human Health and Growth</b>	
<a href="#">Lesson 1: Teeth and Eating</a>	<i>Information</i> 10
	<i>Experiment</i> 11
	<i>Homework</i> 12
<a href="#">Lesson 2: Food and Health</a>	<i>Information</i> 13
	<i>Experiment</i> 14
	<i>Homework</i> 15
<a href="#">Lesson 3: Heart, Pulse and Exercise</a>	<i>Information</i> 16
	<i>Experiment</i> 17
	<i>Homework</i> 18
<a href="#">Lesson 4: Muscles, Bones and Movement</a>	<i>Information</i> 19
	<i>Experiment</i> 20
	<i>Homework</i> 21
<a href="#">Lesson 5: Human and Animal Life Cycles</a>	<i>Information</i> 22
	<i>Experiment</i> 23
	<i>Homework</i> 24
<a href="#">Lesson 6: Healthy Living</a>	<i>Information</i> 25
	<i>Experiment</i> 26
	<i>Homework</i> 27
<a href="#">Lesson 7: Micro-Organisms and Disease</a>	<i>Information</i> 28
	<i>Experiment</i> 29
	<i>Homework</i> 30
<a href="#">Assessment Test</a>	31
<a href="#">Record Sheet</a>	33
<b>Growing Plants</b>	
<a href="#">Lesson 1: Plants are Living Things</a>	<i>Information</i> 34
	<i>Experiment</i> 35
	<i>Homework</i> 36
<a href="#">Lesson 2: The Stem</a>	<i>Information</i> 37
	<i>Experiment</i> 38
	<i>Homework</i> 39
<a href="#">Lesson 3: Plants Have Roots</a>	<i>Information</i> 40
	<i>Experiment</i> 41
	<i>Homework</i> 42
<a href="#">Lesson 4: Some Plants Have Flowers</a>	<i>Information</i> 43
	<i>Experiment</i> 44
	<i>Homework</i> 45
<a href="#">Lesson 5: Seeds are Scattered</a>	<i>Information</i> 46
	<i>Experiment</i> 47
	<i>Homework</i> 48
<a href="#">Lesson 6: Seeds are Germinated</a>	<i>Information</i> 49
	<i>Experiment</i> 50
	<i>Homework</i> 51
<a href="#">Assessment Test</a>	52
<a href="#">Record Sheet</a>	54
<b>Living Things in their Environment (including Variation &amp; Classification)</b>	
<a href="#">Lesson 1: Adapting to a Habitat</a>	<i>Information</i> 55
	<i>Experiment</i> 56
	<i>Homework</i> 57
<a href="#">Lesson 2: Life in a Pond Habitat</a>	<i>Information</i> 58
	<i>Experiment</i> 59
	<i>Homework</i> 60
<a href="#">Lesson 3: Life in a Woodland Habitat</a>	<i>Information</i> 61
	<i>Experiment</i> 62
	<i>Homework</i> 63
<a href="#">Lesson 4: Food Chains</a>	<i>Information</i> 64
	<i>Experiment</i> 65
	<i>Homework</i> 66
<a href="#">Lesson 5: Using Keys to Group Living Things</a>	<i>Information</i> 67
	<i>Experiment</i> 68
	<i>Homework</i> 69
<a href="#">Assessment Test</a>	70
<a href="#">Record Sheet</a>	72

# Food and Health

Food is needed to help our bodies to move, to grow and to repair themselves after being damaged. The food that we eat and drink each day makes up our diet. A healthy diet is a mixture of different types of food.

## Energy Foods:

These foods give us **energy** to move and help to keep us warm.



### Carbohydrates

<i>Sugars</i>	<i>Starches</i>
Biscuits	Bread
Cakes	Pasta
Sweets	Cereals
	Rice



### Fats

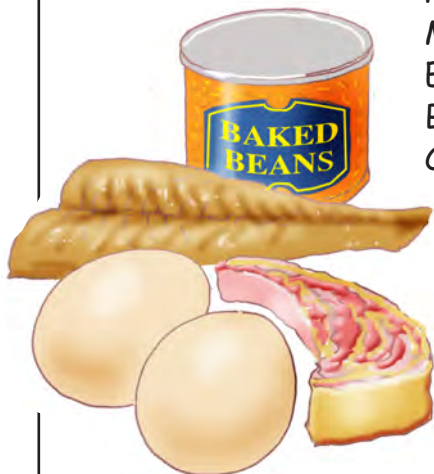
Milk  
Cheese  
Butter  
Cooking Oil  
Meat

## Foods for Growth and Repair:

These foods help the body to **grow and repair** itself.

### Protein

Fish  
Meat  
Milk  
Eggs  
Beans  
Cheese



## Foods to Keep Us Healthy:

These foods give us **healthy** teeth and bones. They also prevent some diseases.

### Vitamins

Fruit  
Vegetables  
Dairy Produce



### Minerals

Meat (liver)  
Milk  
Vegetables

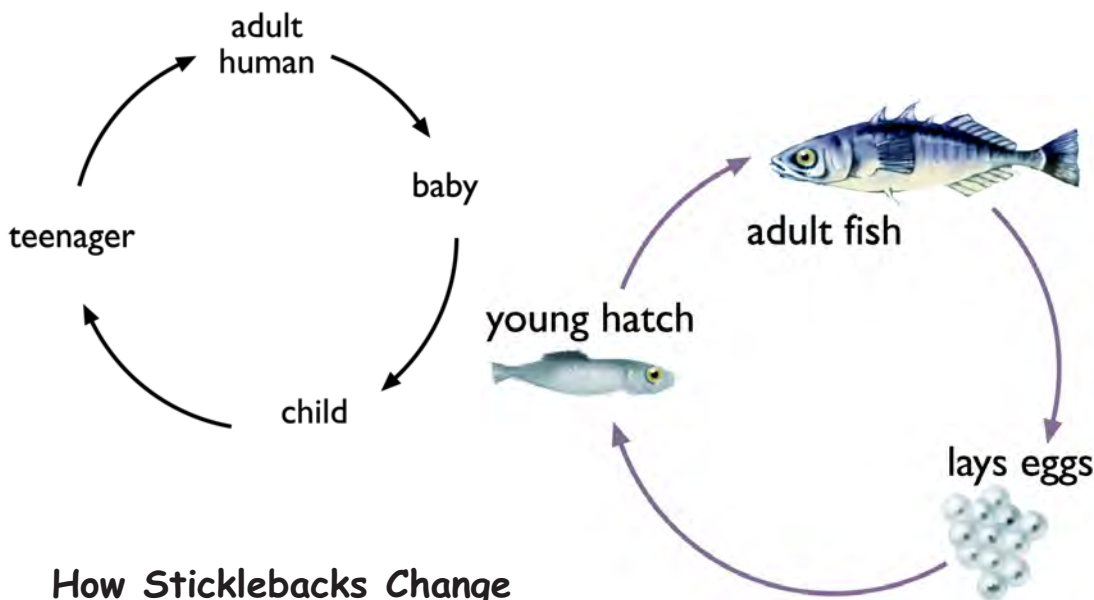


## Task

Answer these questions:

1. Why do we need food?
2. What makes up a diet?
3. Name two foods that give us energy.
4. Name two foods that help the body grow and repair.
5. Name two foods that give us healthy teeth and bones.
6. Draw and colour three foods from each different group.

# Human and Animal Life Cycles



If living things did not have young they would eventually die out. Most human and animal adults have young and these grow into more adults, which in turn produce young. All animals change in some way as they grow.

## How Sticklebacks Change

In the spring the male stickleback builds a nest from weeds and leaves.



The male attracts the female with a zig-zag dance.



The female lays up to 100 eggs in the nest.



After twelve days the eggs hatch into tiny fish called fry.



The fry grow into adult sticklebacks.



## Task

Answer these questions:

1. Why do living things need to have young?
2. When do all animals change?
3. How does the male stickleback attract a female?
4. How many eggs are laid?
5. What do the eggs hatch into?
6. What do fry grow into?
7. Draw the life cycle of a stickleback.

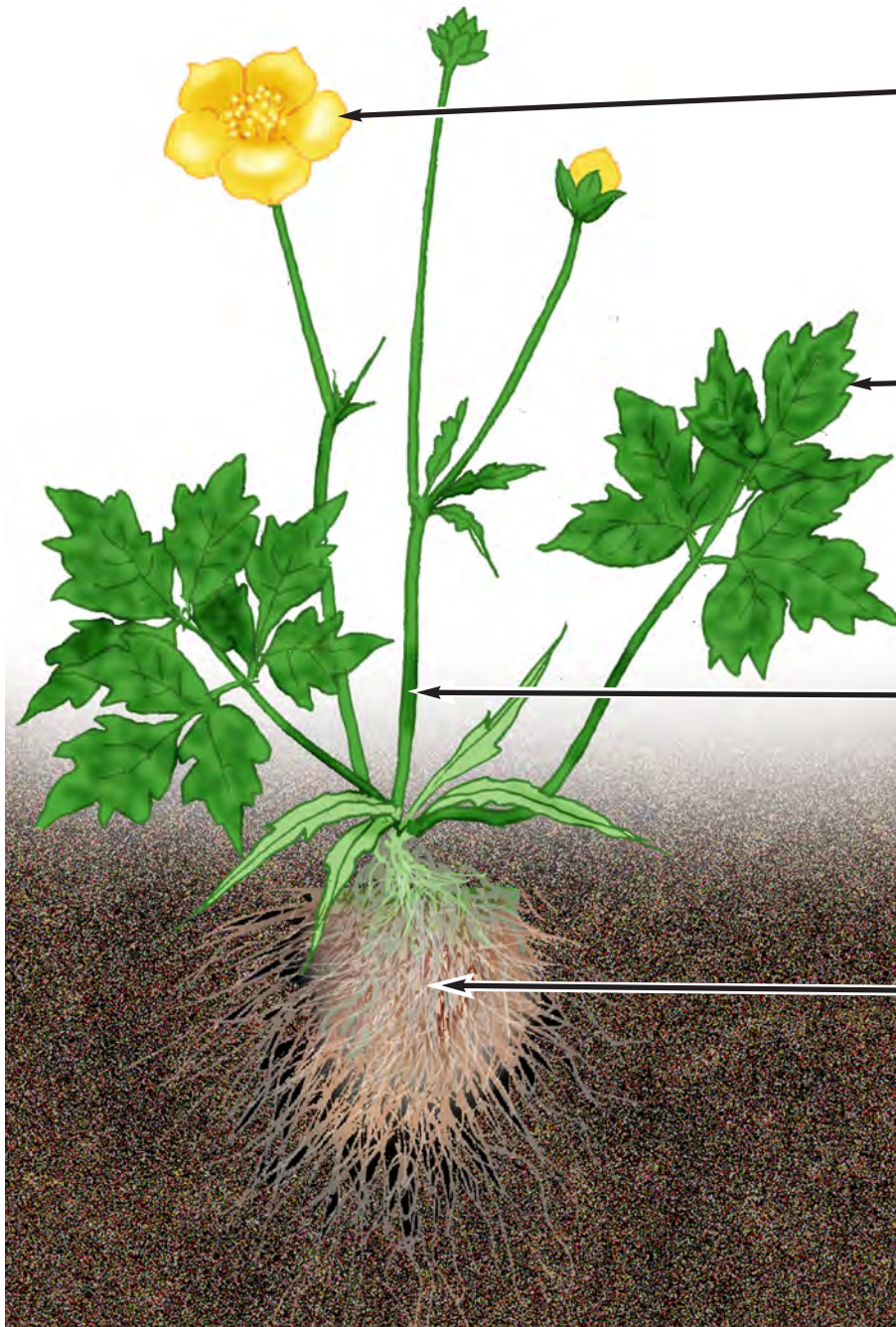


# Plants are Living Things

All living things do the following:

- (1) Move      (2) Have Offspring      (3) Take in Food      (4) Grow

Here is a picture of a flowering plant:



When a flower dies what's left grows into a fruit with seeds. The seeds grow into new plants.

Chemicals inside the leaves use sunlight to change Carbon Dioxide gas and water into food.

The stem holds the plant up and moves it slowly towards the sun as it grows.

Roots anchor the plant to the ground. Root hairs soak up water and minerals from the soil.

## Task

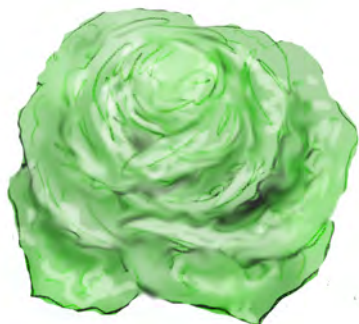
Answer these questions:

1. What happens when a flower dies?
2. What does the stem do?
3. What happens inside leaves?
4. What do roots do?
5. Do you think plants are living things? Why?
6. Draw a flowering plant and name the main parts.

## Food Chains

Cut out the shapes below and make up two food chains each having three pictures. Stick them onto a fresh sheet of paper.

A lettuce is a plant. It makes its own food.



A caterpillar is an insect. It eats leaves.



A kestrel is a bird of prey. It eats small birds and rabbits.



An oak tree is a plant. It makes its own food.



A blue-tit is a small bird. It eats caterpillars and other small insects.



A rabbit is an animal. It likes to eat lettuce leaves.

