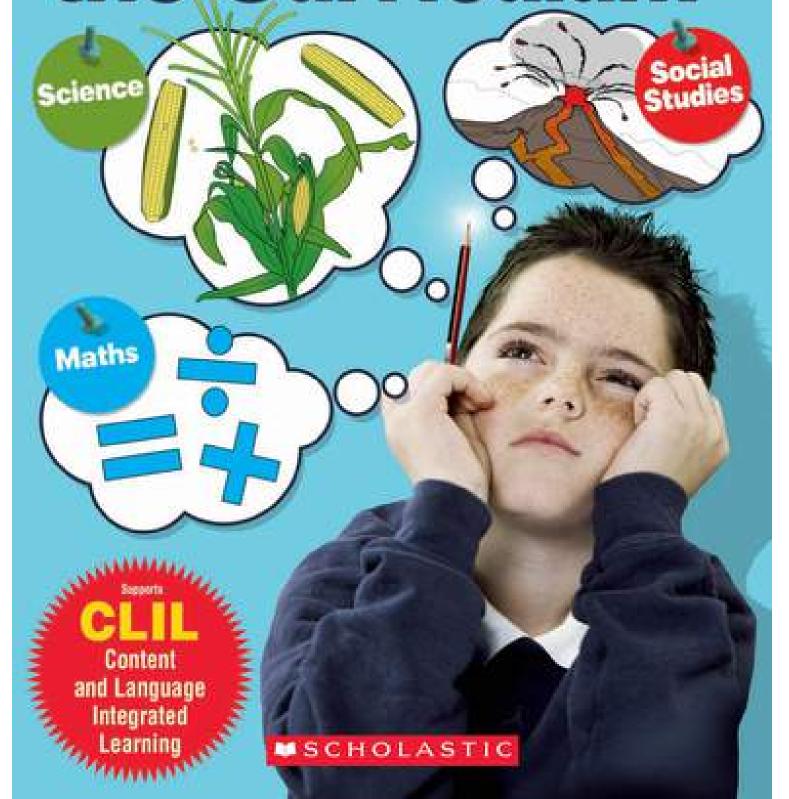
Junior English TIMESAVER

PHOTOCOPIABLE 777

Projects Across the Curriculum



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Key:



Level 1 (For children beginning English)



Level 2 (For children continuing their English)



Level 3 (For slightly older children developing their English)

Introduction

Welcome to the Junior English Timesaver (JET) series! This collection of photocopiable resource books is specifically designed to meet the needs of young learners and their teachers. The JET series covers a range of topics, providing fresh and motivating activities for primary classes of all ages and abilities. Concise teaching notes and carefully staged lessons save teacher preparation time, and help you make the most of your classes.

JET: Projects Across the Curriculum contains 24 crosscurricular projects accompanied by teacher's notes. The projects are topic-based and cover three of the main curriculum subjects at primary level: science, maths and social studies. The book provides a wide range of projects involving elements of research, out-of-class investigation, survey work, group discussion, hands-on work and peer evaluation.

What is a project?

The projects in this book ...

- bring together information from different parts of the curriculum.
- are centred on the world around us.
- have a finished product that can be displayed in class or shown to classmates.
- involve an element of collaborative work.

Why use projects?

Our projects ...

- allow pupils to work at their own pace.
- are suitable for mixed level and mixed ability classes.
- are child-centred and increase learner autonomy.
- are highly motivating.
- improve social skills, such as working with others, sharing and delegating tasks, and appreciating one another's work.
- are effective for developing all four language skills.
- develop graphic and artistic skills.

Using this book

Level, classroom management and timing

The projects are divided into three different levels, shown by the star symbols at the top of the page. These levels refer to both the cognitive level of the children and the language used.



Level 1 (For children beginning English)



Level 2 (For children continuing their English)



Level 3 (For slightly older children developing their English)

The projects can be carried out on an individual basis, in pairs or in small groups of three to five pupils. The icons at the top of the page indicate the suggested classroom grouping for each project.



individual



pair



small group

The projects are designed to be carried out in one or two class periods (based on a lesson of approximately 40 minutes). Nevertheless, the topics are open-ended and can be extended through the follow-up activities or weblinks provided in the teacher's notes.



The project can be carried out in one class.



The project requires longer development or discussion stages, or pupils perform out-of-class research with a reporting back stage.

Photocopiable pages and resource sheets

Each project includes photocopiable pages to be used in the lesson and the materials list indicates how many copies will be required based on an average class size of 30. A number of projects also include a research stage. Classes with higher level pupils or more time available can use encyclopaedias, reference books or the Internet to research the information. For classes where time is at a premium, or teachers would prefer the language level to be more controlled, we have included optional graded resource sheets. These contain all the information pupils will need to complete the project.

Teacher's notes

The teacher's notes for each project include a list of active language needed to complete the tasks. The projects also include a variety of language for passive awareness. The language section includes the phonemic transcript of the key vocabulary items. There is also a complete materials list.

The teacher's notes are divided into the following stages:

- Getting started presentation of key vocabulary and structures pupils will need to fulfil the project task alongside suggestions of how to introduce the topic and prepare pupils for each project.
- Projects step by step instructions on how to carry out the project. For some projects, an alternative idea is given of how to set up the project.
- Follow-up activities optional supplementary activities that allow pupils to extend their knowledge of content or language issues which arise in the project.
- Weblinks relevant webpages provided to help teachers and pupils find further information on the topics.

Who is this book for?

The projects in this book can be used by English teachers in ESL/EFL classes or by teachers in bilingual settings. They can be seen as an integral part of work on a given topic, as 'warmer' activities to introduce new themes, as extra material or as review material once a topic has been investigated in class. The projects are specially designed to offer teachers flexible and engaging material for a variety of different lessons.

We hope that you enjoy this book and that it will offer you, and your pupils, new and interesting insights into cross-curricular projects!

1 Amazing Animals



- find out interesting facts about animals
- make quiz cards

Materials

- photocopies of page 7 and 8, one of each per pupil
- up to 4 photocopies of the resource sheet (page 9), cut into information cards
- scissors

Language

- bat /'bæt/, camel /'kæməl/, cat /'kæt/, dolphin /'dolfin/, giraffe /dʒi'rə:f/, lion /'laiən/, penguin /'peŋgwin/, snake /'sneik/; eat /'i:t/, drink /'drink/, sleep /'sli:p/; ears /'iaz/, eyes /'aiz/, legs /legz/, tongue /'tʌŋ/, wings /'winz/
- Which animal (has wings)? It's a lion. It's sleeping.

Getting started

- 1 Give each pupil a photocopy of page 7. Say the names of the animals in the illustrations: camel, giraffe, dolphin, lion, bat. Pupils listen and point to the correct pictures. Say the names of the animals again. The pupils listen and repeat. Write the names of the animals on the board.
- Write sleep, eat and drink on the board. Do a mime using one of the animals and one of the verbs, e.g. a lion sleeping. Ask: Which animal is this? What's it doing? Pupils say: It's a lion. It's sleeping. Now ask pupils to come to the front of the class and do similar mimes.
- 3 Elicit ears, eyes, legs, tongue and wings by pointing to the different body parts on the illustrations. Ask: What are these? What's this?

Project

1 Can you answer the questions?

Pupils work in pairs and see if they can answer the questions. Check the answers with the class and at the same time ask pupils to think about themselves, e.g. A dolphin sleeps with one eye open. Ask: *Do you sleep with one eye open?*

Answers: 1 a bat 2 a dolphin 3 a giraffe 4 a lion 5 a camel

2 Can you remember? Read and write.

Ask pupils to cover up activity 1 on the photocopy. In pairs, pupils complete the sentences seeing how many they can answer without looking back.

Answers: 1 A lion sleeps a lot! 2 A bat can fly. 3 A giraffe cleans its ears with its tongue. 4 A dolphin sleeps with one eye open. 5 A camel drinks a lot of water!

3 Make a quiz card.

Take the information cards from the resource sheet on page 9 and put them up around the classroom. Give each pupil a photocopy of page 8 and ask them to choose one of the four animals. The pupils go round the class and find the information card for their animal and memorise one interesting fact about it. They write the fact on their quiz cards and draw a picture to illustrate it. Pupils can return to the information card as many times as they need.

Pupils use the interesting fact to help them write a quiz question. They fold the card over as marked, so that the fact is hidden.

In small groups, the pupils ask each other their quiz questions. They see how many questions they can answer.

Alternative idea

Pupils go to reference books and/or websites to find information on one of the animals. They find an interesting fact and fill in their quiz cards using this information.

Follow-up activities

- O Write the words mammals, reptiles and birds on the board. Pupils brainstorm animals from each category. (Examples of mammals: bear, bat, dolphin. Examples of reptiles: snake, lizard, turtle. Examples of birds: penguin, ostrich, duck.)
- Make a class poster with all the quiz cards. Pupils answer as many questions as they can.

Weblinks

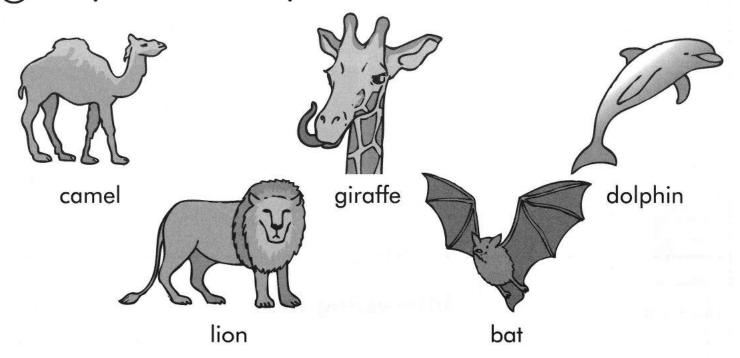
http://www.sandiegozoo.org/animalbytes Interesting information on animals from the San Diego Zoo.

http://www.spri.cam.ac.uk/resources/kids/animals.html
Find out about animals and birds from the Arctic and
Antarctic on the University of Cambridge website.
http://www.enchantedlearning.com/coloring
Print outs of many animals to colour and keep.



1 Amazing Animals

(1) Can you answer the questions?



- 1 Which animal has wings? a bat
- 2 Which animal sleeps with one eye open?
- 3 Which animal cleans its ears with its tongue?
- **4** Which animal sleeps 15–20 hours every day?
- 5 Which animal drinks 120 litres of water in 10 minutes?
- 2 Can you remember? Read and write.

drinks eye fly sleeps tongue

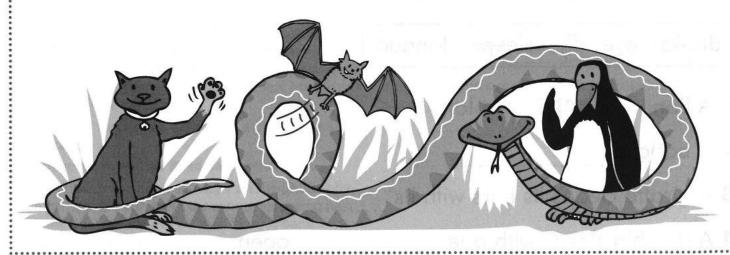
- 1 A lion sleeps a lot!
- 2 A bat can
- 3 A giraffe cleans its ears with its
- **4** A dolphin sleeps with one open.
- **5** A camel a lot of water!

3 Make a quiz card.

fold here	100 AND DA
 Interesting fact:	

Quiz question:

Which animal



Resource sheet

Information card: Cats



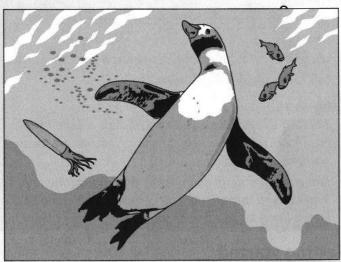


- A cat sleeps 16–18 hours a day.
- It doesn't like water.
- It walks on its toes.

Penguins

Information card:





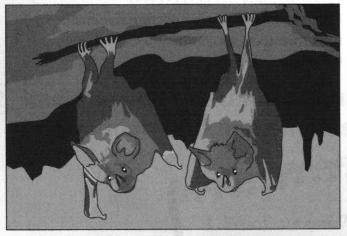
- A penguin has got wings, but it can't fly.
- It eats fish and squid.
- It can see underwater.

Information card: Bats

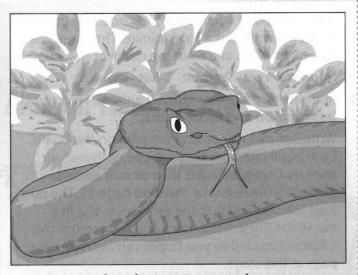


Information card: Snakes





- A bat can fly, but it isn't a bird.
- It sleeps upside down.
- A brown bat can eat 600 mosquitoes in one hour!



- A snake hasn't got legs.
- It eats small animals and eggs. It can't blink.

Nocturnal Animals



- carry out research on nocturnal animals
- write a description

Materials

- photocopies of pages 11 and 12, one of each per pupil
- up to 8 photocopies of the resource sheet (page 13), cut into information cards

Language

- nocturnal /npk't3:nəl/, diurnal /dar'3:nəl/; bat /'bæt/, cat /'kæt/, owl /'aul/, rabbit /'ræbīt/, racoon /rɔ'ku:n/, scorpion /'skɔ:pi:ən/
- I'm (a scorpion). I live in (forests and mountains). I eat (insects and sometimes fruit). I sleep (during the day).
 I have (long fingers and toes).

Getting started

- Write the words nocturnal and diurnal on the board. Explain that diurnal animals are active during the day, while nocturnal animals are active at night.
- 2 Pupils brainstorm nocturnal and diurnal animals. (Examples of nocturnal animals: bat, cat, fox, mole, mouse, opossum, owl, rabbit, racoon, scorpion. Examples of diurnal animals: canary, dog, monkey, parrot, sheep).

Project

1 Read and write.

Give each pupil a photocopy of page 11. Pupils look at the pictures of the four animals. They read the speech bubbles and fill in the name of the animal.

Answers: 1 cat 2 rabbit 3 bat 4 owl

2 Imagine you are a nocturnal animal. Find out the information and make notes.

Write bat, owl, racoon and scorpion on the board. Each pupil imagines they are one of these four animals. Give each pupil the relevant information card from the resource sheet on page 13. The pupils read the text and find the answers to the five questions. They make notes and then return the information card to you. Pupils can also work in pairs at this stage.

Alternative idea

Pupils find information on nocturnal animals in reference books and/or websites. They look for the answers to the questions and make notes on the information they find.

3 Draw and write about your habits.

Give each pupil a photocopy of page 12. Pupils draw a picture and write a short description using the information they have found out.

Pupils read their descriptions to their classmates. Their classmates listen and guess the name of the animal.

The descriptions can be displayed around the classroom. Allow time for pupils to compare and contrast their work.

Follow-up activities

- O Ask a pupil to come to the front of the class. They think of a nocturnal animal. Their classmates find out what the animal is by asking questions, e.g. Does it live in forests? Does it eat fruit? Does it have big eyes? The pupil at the front of the class can only answer yes or no. When a pupil guesses the animal correctly, they come to the front of the class and the game starts again.
- O Pupils think about how well-adapted nocturnal animals are to night life. (For example: They have large eyes to see well. They have big ears to hear well. They sleep during the day to have energy at night.) Ask them if they think humans are suited to nocturnal life.

Weblinks

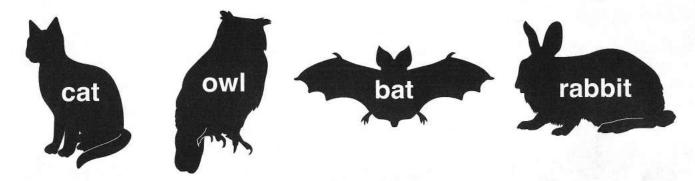
http://www.enchantedlearning.com/coloring/ nocturnal.shtml

Extensive information on nocturnal animals. http://members.aol.com/bats4kids Information on bats.



Nocturnal Animals

1) Read and write.



1

I usually live with people. I eat fish and meat. I have special eyes and I can see in the dark. I'm a cat.

3

I sleep during the day. I am usually black or brown. I can fly but I am not a bird. ľm a

2

I eat plants and flowers. I am sometimes active during the day, but I'm nocturnal. I have big ears. l'm a

I always sleep during the day. I have very big eyes. I can fly. I'm an

(2) Imagine you are a nocturnal animal. Find out the information and make notes.



1	What	are	you?

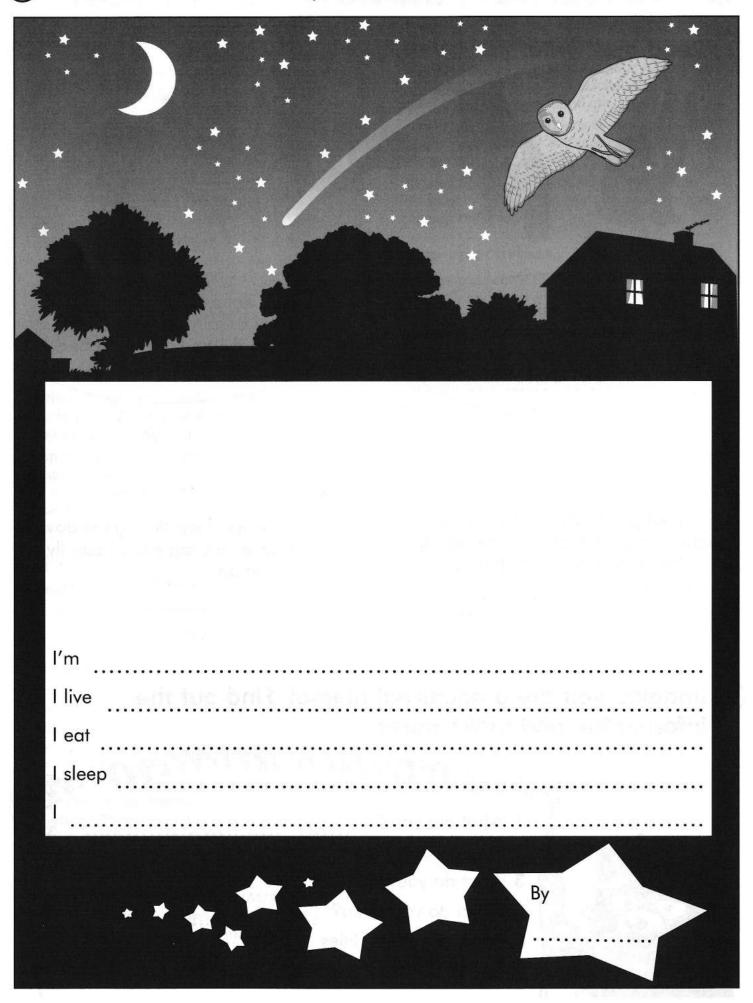
2 Where do you live?

3 What do you eat?

4 When do you sleep?

5 What special qualities do you have?

3 Draw and write about your habits.



Resource sheet

Information card 1: Owls

Owls have big, round eyes which help them see at night. They are carnivores and eat mice, rats, rabbits and insects. They usually live in forests or mountains. Owls sleep during the day and look for food at night.



Information card 2: Bats

Bats fly at night and sleep during the day. They sleep upside down, sometimes for 20 hours! They can hear very well. They live in forests and caves. Bats usually eat insects, but some bats eat fish, mice or fruit.



Information card 3: Racoons

Racoons live in North and South America. They live in a lot of places, including forests and cities. They sleep during the day and look for food at night. They eat a lot of different food, for example: birds, fish, fruit and cereal. Racoons have long fingers and toes.



Information card 4: Scorpions

Scorpions are arachnids (not insects). They have eight legs and a stinger. They live on all continents, except Antarctica. They live in deserts, forests and caves. Scorpions sleep during the day and eat insects and mice at night.









- investigate differences between similar animals
- make a animal identification chart

Materials

- photocopies of pages 15 and 16, one of each per pupil
- up to 15 photocopies of the resource sheet (page 17), cut into information cards
- dictionaries
- optional: photos of a camel and a duck

Language

- (Bactrian) camel /'bæktrı:ən 'kæməl/, dromedary /'dromədəri/, emu /'iːmju:/, ostrich /'pstritʃ/, tortoise /'tɔ:təs/, turtle /'tɜ:təl/; hump /'hʌmp/, shell /'fel/, webbed feet /'webd 'fiːt/
- Both turtles and tortoises have shells, but turtles usually have a flat shell. Tortoises are heavier than turtles.

Getting started

Pre-teach hump and webbed feet. Draw or show a picture of a camel. Point to its back and say: hump. Draw or show a picture of a duck. Point to its feet and say: webbed feet.

Project

1 Can you identify the animals? Read the clues and label.

Give each pupil a photocopy of page 15. Pupils work in pairs. They number the pictures using the clues to help them.

Answers: 1 camel 2 emu 3 tortoise 4 turtle 5 dromedary 6 ostrich

2 Read and answer the questions.

Divide the class into half. Give half the class a photocopy of information card 1 from the resource sheet on page 17. Give the other half of the class a photocopy of information card 2. Pupils read the texts for each animal and answer the questions in note form, looking up any unfamiliar words in the dictionary.

Answers:

Where do they live?

tortoises: in most countries of the world; on land dromedaries: South West Asia and North Africa ostriches: Africa

turtles: in most countries of the world; near water (Bactrian) camels: Africa, Arabia, Asia and Australia emus: Australia

What do they look like?

tortoises: look like turtles but with round feet; bigger and heavier than turtles

dromedaries: long legs; one hump; short hair

ostriches: large birds; usually black and white; very big eyes; two toes on each foot; no teeth

turtles: usually have a flat shell; webbed feet

(Bactrian) camels: short legs; two humps

emus: smaller than ostriches; usually brown with a black neck; three toes on each foot

What can / can't they do?

tortoises: can live for a very long time; can't swim dromedaries; can live without water for a week; can live in very hot climates ostriches: can run very fast; can't fly

turtles: can see very well at night
(Bactrian) camels: can live without water for a week
emus: can run very quickly; cannot fly

3 Complete the animal identification chart.

Pupils form pairs so they are working with someone from the other half of the class. Give each pupil a photocopy of page 16. Pupils fill in the animal identification chart by comparing the facts they have about the pairs of animals. Work through the first pair of animals together as a class.

Example answers:

Camels have shorter legs than dromedaries. Both camels and dromedaries can live without water for many days. Both turtles and tortoises have shells, but turtles usually have a flat shell. Tortoises are heavier than turtles. Emus live in Australia, but ostriches live in Africa. They can both run quickly, but ostriches are the fastest birds in the world.

Follow-up activities

- O Ask a pupil to come to the front of the class. They think of one of the animals from the identification chart. Their classmates try to guess the animal by asking questions, e.g. Has it got webbed feet? Can it swim? Does it live in Asia? The pupil at the front of the class can only answer yes or no. When the class guesses the animal, invite another pupil to the front.
- Pupils find information on pairs of similar animals in reference books and/or websites and write further comparisons.

Weblinks

http://www.all-animals.com/camels.html
Contains information on camels and dromedaries.
http://www.kidzone.ws/animals
Interesting facts about animals.



Which is Which?

Can you identify the animals? Read the clues and label.

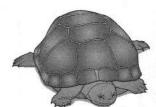
ostrich tortoise turtle camel dromedary emu



2

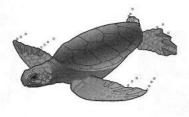


3

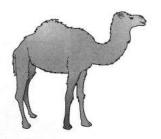


camel





5



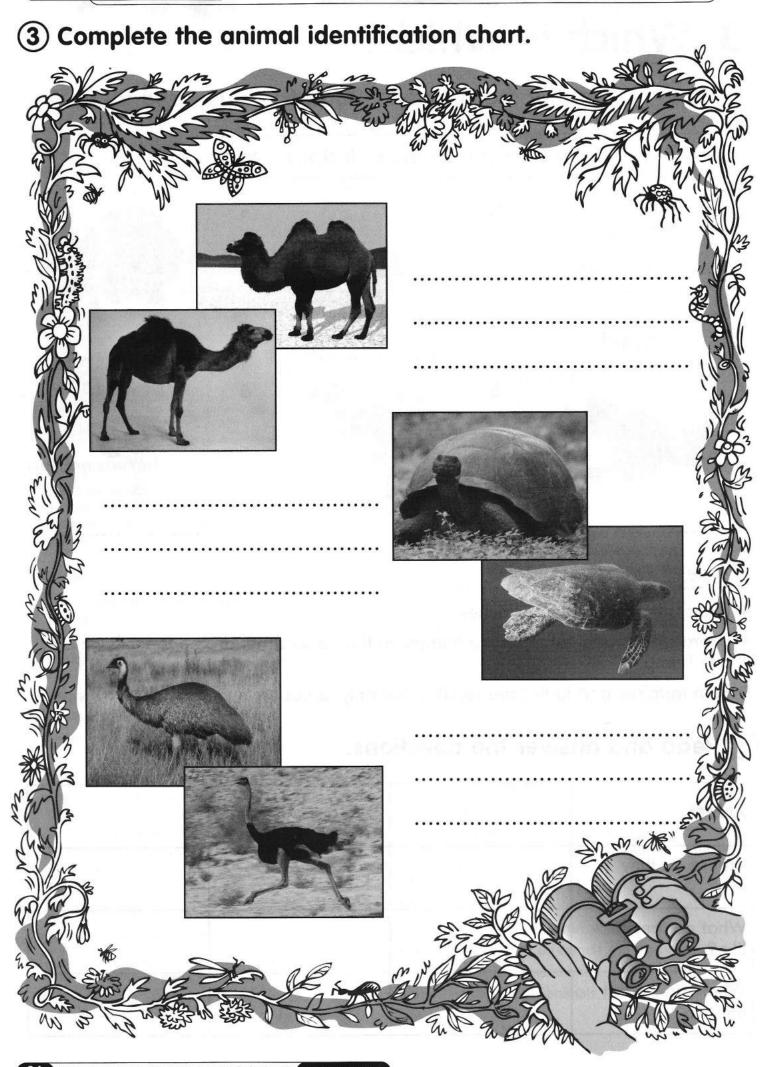


CLUES

- Emus are smaller than ostriches.
- Dromedaries and camels have humps on their backs, but dromedaries have only one hump.
- Both tortoises and turtles are reptiles, but only turtles have webbed feet to swim.

(2) Read and answer the questions.

ANIMAL:	The same of the same	
Where do they live?		249
What do they look like?		
What can / can't they do?		



Resource sheet

and have webbed feet, so they can swim. They have

flat shells.

usually live near water

countries of the world. They are reptiles that

Turtles live in most

Information card 2

information card



but they have round feet countries of the world. and they live on land. Tortoises live in most They look like turtles, **Fortoises** are often

bigger and heavier than

turtles. Most tortoises walk slowly and cannot swim. They can live tor a very long time.



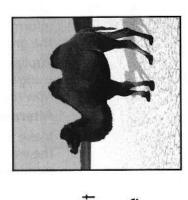
similar to dromedaries, but shorter legs. They can live they have two humps and without water for a week. They grow long hair in Australia. Camels are



Ostriches are large birds that black and white. They cannot live in Africa. They have two They are the fastest birds in toes on each foot and very Iy and they have no teeth. big eyes. They are usually the world.

foot. They can run quickly have three toes on each with a black neck. They and are usually brown smaller than ostriches Australia. They are Most emus live in

out cannot fly.



Africa, Arabia, Asia and

Bactrian camels live in



long legs. They can live



How Plants Grow

Objectives

- investigate growth cycles of plants
- make a growth cycle poster

Materials

- photocopies of pages 19 and 20, one of each per pupil
- up to 4 photocopies of the resource sheet (page 21), cut into information cards
- coloured pencils
- scissors
- glue
- seeds from a variety of plants

Language

- flower /'flauwə/, fruit /'fruit/, leaf /'liif/, leaves /'liivz/, roots /'ruits/, seed /'siid/, stem /'stem/
- What's this? It's a (flower). What are these? They're (seeds). Look, this is the (seed). These are the (leaves).

Getting started

Bring in some seeds and draw a daisy plant on the board to introduce the target vocabulary: flower, leaf, leaves, roots, seed, stem. Ask a pupil to come to the front of the class and point to a part of the daisy plant. The pupil asks: What's this? or What are these? Her classmates reply: It's a (flower). or They're (seeds). Continue the activity asking different pupils to come to the board.

Project

1 Read and put in order.

Give each pupil a photocopy of page 19. Pupils cut out the pictures and glue them onto the growth cycle chart in the correct order.

Answers: Seed falls on the soil. → Roots begin to grow. → Stem and leaves grow. → Flowers appear. → Fruit or seeds form.

2 Choose and find out about a plant.

Pupils choose a fruit or vegetable from the pictures. Take the information cards from the resource sheet on page 21 and put them up around the classroom. Pupils find the information which relates to the plant they have chosen and draw and label the flower, the leaf and the seeds and/or fruit.

Alternative idea

Pupils find information on how the plant grows in reference books and/or websites. They draw and label the flower, the leaf and the seed and/or fruit.

3 Draw the growth cycle of a plant.

Give each pupil a photocopy of page 20. Using the information they have found out, the pupils draw the growth cycle of their chosen plant.

Pupils describe the growth cycle to their classmates using basic structures, e.g. Look, this is a daisy seed. Now roots grow.

Alternative idea

Make a series of growth cycle posters to display on the wall. Pupils work in groups of four or five. Each pupil in the group illustrates one of the stages of the cycle.

Follow-up activities

- O Discuss with pupils what plants need to grow well (water, sunshine and in most cases, soil).
- O Place one or two beans on some damp cotton wool in a sealed plastic bag. Place the bag in sunlight. Within six or seven days, the beans should start to sprout. Pupils record the growth process in their notebooks.

Weblinks

http://www.bbc.co.uk/schools/scienceclips/ages/7_8/plants_grow_fs.shtml.

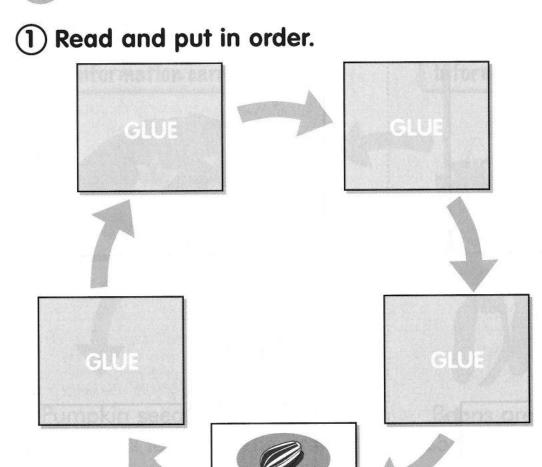
Information on looking after plants.

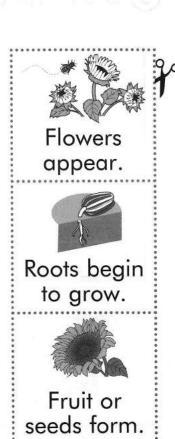
http://www.uen.org/activities.

Select: Activities and Science and scroll down to find lesson plans on plants.



How Plants Grow







(2) Choose and find out about a plant.



pumpkin



Seed falls

on the soil.

tomato

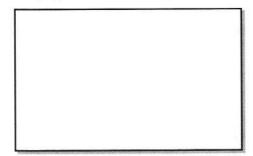


bean

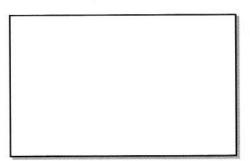


sweetcorn

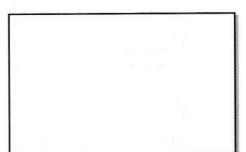
My plant:



This is the flower.

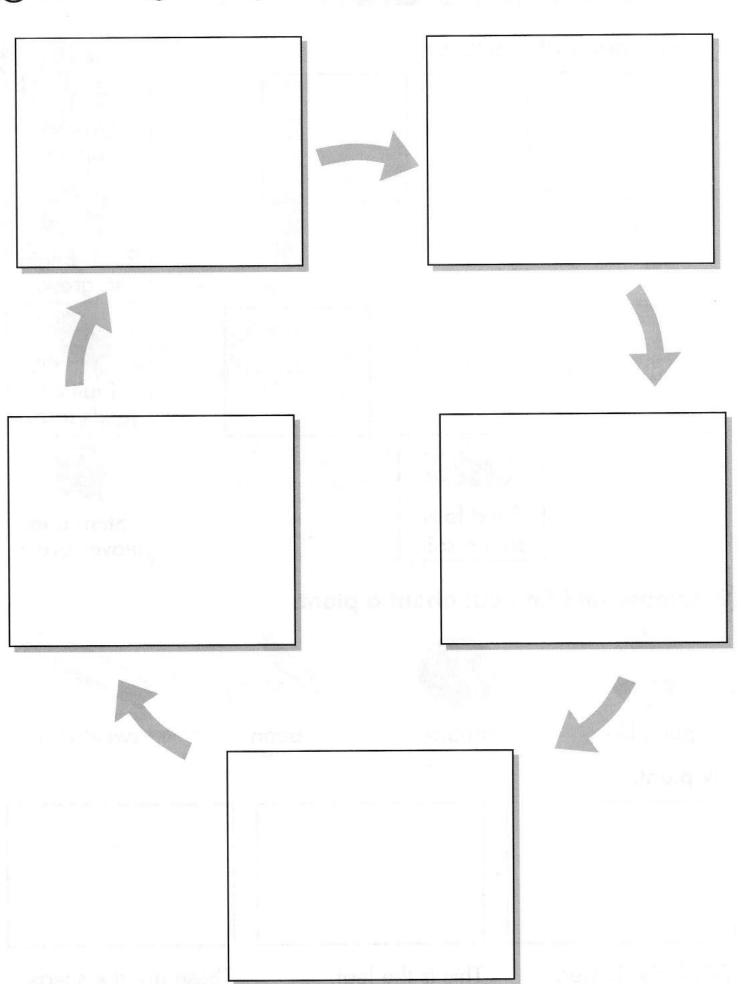


This is the leaf.



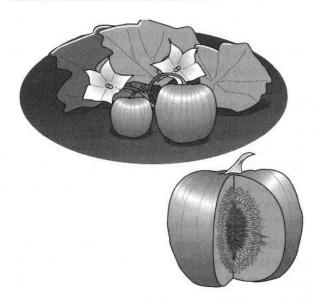
These are the seeds.

3 Draw the growth cycle of a plant.



Resource sheet

Information card 1



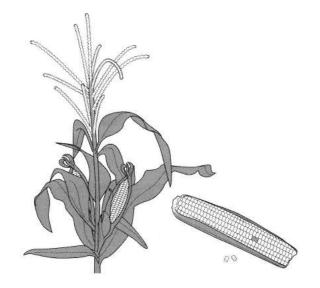
Pumpkin seeds need light, water and soil to grow. The orange fruit can grow very large.

Information card 2



Beans are seeds with hard coats. They need water and sun to grow.

Information card 3



The sweetcorn seed needs soil, sun and water to grow. Popcorn is made from the seeds.

Information card 4



A tomato has a lot of seeds. The seeds need soil, light and water to grow.



5 Plants Around Me

Objectives

- consider the importance of plants in our daily lives
- draw a room plan

Materials

photocopies of pages 23 and 24, one of each per pupil

Language

- cotton /'kotən/, paper /'peɪpə/, rubber /'rʌbə/, wood /'wod/
- This is (a chair). It's made of (wood). These are (wellies). They're made of (rubber). This is my bathroom. Look, there are no towels.

Getting started

Write the words wood, rubber, paper and cotton on the board. Point to different items in the classroom and ask pupils to name the material they are made of.

Project

1 Find the materials. Circle and write.

Give each pupil a photocopy of page 23. Pupils find the materials in the puzzle and fill in the missing words.

Answers: 1 wood 2 cotton 3 cotton 4 rubber 5 rubber 6 paper

2 Where do materials come from? Look and match.

Pupils look at the pictures and match the materials to the plants they come from.

Answers: 1 c 2 b 3 a 4 c

Pupils look round the classroom and imagine what would be 'missing' if there were no plants, e.g. pencils and paper.

3 Draw a room.

Give each pupil a photocopy of page 24. The pupils take these home. In the first box, the pupils draw a picture of a room in their house. In the second box, they draw the same room, but without all the objects which are made of plant materials.

In the following class, they compare their pictures with their classmates, e.g. This is my bathroom. Look, there are no towels.

Alternative idea

Put the pupils in groups and assign each group a different area of the school. They draw a picture of the area in the first box. In the second box, they draw the same area, but without all the objects which are made of plant materials. They compare their pictures with their classmates, e.g. This is the library. Look, there are no books.

Follow-up activities

- Select a series of items from the classroom, some made from plants, and some not. Point to each item and say its name. If the object is made from plants, pupils clap their hands. If the object is not, they do not clap. For example: pencil (clap), paper (clap), paper clip (don't clap).
- O Now that pupils have seen the importance of plants in our daily lives, encourage them to think about the plants we eat. Ask them to search their kitchens at home and find out how many items come from plants.

Weblinks

http://www.enchantedlearning.com/subjects/plants Information and activities on different plants. http://www.dublinzoo.ie/come_plants_why_plants.htm Find out why plants are important from the Dublin Zoo website.

SCIENCE



Plants Around Me

(1) Find the materials. Circle and write.

R	W	Α	S	W	1	R
С	0	T	Т	0	Ν	Р
0	0	I	Т	Е	Р	Α
В	D	D	Е	F	В	Р
U	К	С	Υ	Α	Р	Е
0	R	U	В	В	Е	R







2 towels They're made of



3 T-shirt It's made of



4 balloon It's made of



5 wellies They're made of



6 newspaper It's made of

(2) Where do materials come from? Look and match.

2



C













a cotton plant

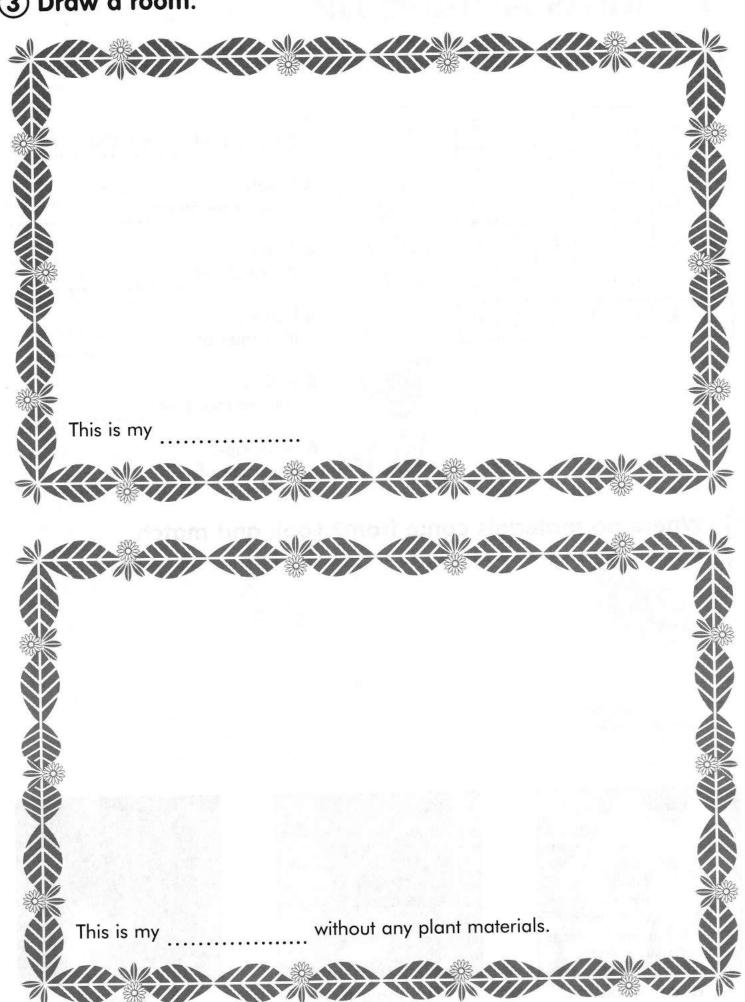


b rubber tree



c tree

Draw a room.





Carnivorous Plants

Objectives

- learn about different carnivorous plants
- design a poster

Materials

- photocopies of page 26, one per pupil
- up to 5 copies of the resource sheet (page 27), cut into information cards
- paper for pupils to make posters
- coloured pencils

Language

- carnivorous /ka: 'nivərəs/
- What is it called? It's a (Pitcher plant). How big is it? It grows to (90 cms tall). Where can you find it? It lives (in Asia). What does it eat? It eats (ants and flies). How does it catch its food? (The insects fall into the leaves.)

Getting started

- 1 Write the word *carnivorous* on the board. Ask pupils if they know what this means (meat eating). Ask them if they eat meat and explain that humans are omnivorous (meat and plant eaters).
- 2 Ask: Do plants eat meat? Explain that some plants 'eat' insects and other small animals to survive.

Project

1 Unscramble the verbs and complete the sentences.

Give each pupil a photocopy of page 26. Pupils look at the text, unscramble the words and complete the sentences.

Answers: a grows b lives c eats d fall

2 Read and match.

Pupils look at the headings and match them to the appropriate section of text.

Answers: 1 What's it called? 2 How big is it? 3 Where can you find it? 4 What does it eat? 5 How does it catch its food?

3 Make a poster.

Pupils work in small groups. Half the class find out about the Venus Flytrap, the other half find out about the Sundew plant. Give each group the relevant fact card from the resource sheet on page 27. Pupils read the information and design a poster to illustrate what they have found out. They decide who is responsible for different items on the poster: one or two pupils can work on the illustrations, one can design the title and the look of the page, more pupils can work on the texts.

Suggest pupils give you a rough draft of the texts to check first. They can use the poster in activity 1 as a model or invent their own format.

Display posters around the classroom, allowing time for pupils to compare and contrast their work. Each pupil finds a partner who has found out information on the other plant. They ask and answer the questions from activity 2. Can they remember the answers without looking at their posters?

Alternative idea

Pupils find information on carnivorous plants in reference books and/or websites. They design a poster on one of the plants based on the model in activity 1.

Follow-up activities

- O Write the words carnivore, herbivore and omnivore on the board. Pupils brainstorm animals from each category. (Examples of carnivores: lion, dog, tiger. Examples of herbivores: sheep, horse, cow. Examples of omnivores: chicken, human, monkey.)
- Pupils investigate how non-carnivorous plants attract insects and animals for pollination. (For example: use of scent or nectar, colourful flowers that attract insects, shapes that are easy for insects to land on to collect pollen.)

Weblinks

http://academickids.com/encyclopedia/index.php/ Carnivorous_plants

Encyclopaedia information on carnivorous plants. http://www.ucalgary.ca/~dmjacobs/edts325/flytrap/ Venusp~1.htm

Photos and information on Venus Flytraps.

http://www3.cesa10.k12.wi.us/Ecosystems/wetlands/ plants/sundew/index.htm

Information on Sundew plants.



6 Carnivorous Plants

Unscramble the verbs and complete the sentences.

	M Land
1	What's it called ?
	Nepenthes Pitcher Plant
2	? It (a) grows to 90 cms tall. (worgs)
	A RECEIVED
3	S AND SERVICE STATES OF THE SERVICE STATES O
	It (b) in Asia, usually ! (1)
	in wetlands. (silev)
4	?
	It (c) ants, flies, ants, flies,
	mice, birds and frogs. (etsa)
5	?
	The leaves are colourful to attract insects. The insects
	(d) into the leaves and get trapped. (lafl)

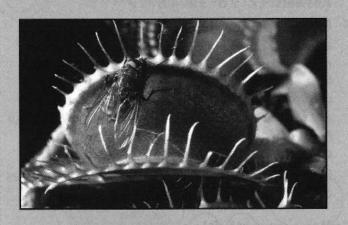
2 Read and match.

What's it called? Where can you find it? What does it eat? How does it catch its food? How big is it?

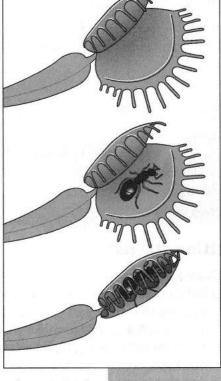
Make a poster.

Resource sheet

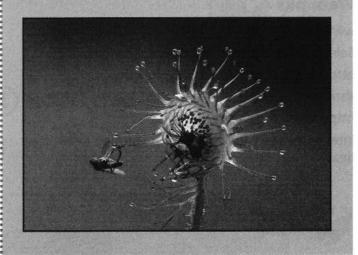
Venus Flytrap Facts



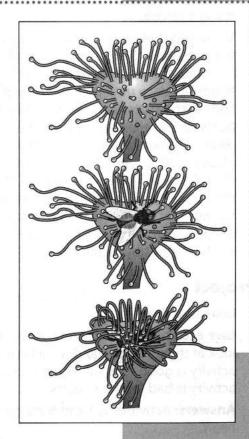
- most famous carnivorous plant
- 12–15 centimetres tall
- grows in North and South Carolina in wetlands
- needs a lot of sun and water
- usually eats flies (sometimes small frogs or lizards)
- traps insects and animals by closing its 'jaws'
- many people collect the plants and they are now endangered



Sundew Plant Facts



- grows in almost all continents except Antarctica
- needs a lot of humidity and sunshine
- usually eats ants and other insects
- between 15 centimetres and one metre tall
- sticky tentacles catch the food
- tentacles have a special smell that attracts insects





Objectives

- consider the importance of exercise for good health
- design a poster

Materials

- photocopies of pages 29 and 30, one of each per pupil
- stopwatch
- coloured pencils

Language

- dance /'dains/, eat fruit and vegetables /'iit 'fruit and 'ved3tabalz/, go running /'gau 'rʌnιŋ/, ride your bike /'raɪd joɪ 'baɪk/, walk up the stairs /'woɪk ʌp ða 'steaz/
- Help Your Heart!

Getting started

- 1 Draw a heart shape on the board. Ask pupils to point to their hearts. Close your hand into a fist and tell pupils that the heart is a muscle about the size of their fist. Ask pupils to make their hands into a fist. Ask them to squeeze and relax their fists ten times. Explain that this is what the heart does when it pumps blood around the body. Ask if their hand muscles feel tired. Explain that the heart is a muscle too and they can help their hearts stay healthy by doing exercise.
- 2 Tell pupils that they can count their heartbeats. Tell them to place their index and middle fingers (not their thumbs) on their wrist or neck. They hold their fingers in place until they feel their pulse beating. Look at the stopwatch, say: Go! They count their beats for 10 seconds and write the number on a piece of paper. Pupils jump up and down or jog in place for 30 seconds. Tell them to stop and count the beats again when you say: Go! They write down the number and compare their results. Explain that the number of beats increased because their heart needed to work faster. By doing exercise we help our hearts to stay healthy.

Project

1 Look and draw.

Give each pupil a photocopy of page 29. The pupils look at the pictures and draw a happy face if the activity is good for their hearts and a sad face if the activity is bad for their hearts.

Answers: Activities 2, 4 and 6 are good for your heart.

2 Read and match.

Pupils match the illustrations to the advice. Tell pupils they should do at least 30 minutes of physical activity a day.

Answers: 1 c 2 d 3 a 4 b 5 e

3 Make a poster.

Give each pupil a photocopy of page 30. Pupils make a poster to encourage their schoolmates to look after their hearts. They complete the slogan with one of the forms of exercise from activities 1 and 2 or using one of their own ideas, e.g. Help your heart ... ride your bike! Pupils then draw an appropriate illustration inside the heart shape. Display the posters where pupils from other classes can see them.

Follow-up activities

- O Pupils brainstorm sports, e.g. football, tennis, or activities which involve physical movement, e.g. swimming, walking. Write the words team and individual on the board. Pupils put the activities in the correct category. Remind pupils that some activities can be placed in either category, e.g. swimming.
- Pupils reflect on their own fitness habits. They note down what exercise they take in an average week and decide what they can do to increase this.

Weblinks

www.kidnetic.com

Select: Move and try the fitness challenges.
http://kidshealth.org/kid/stay_healthy
Various articles on keeping fit and staying healthy.
http://www.mplsheart.org/kids/
Interactive site with activities for learning about the heart.



Help Your Heart

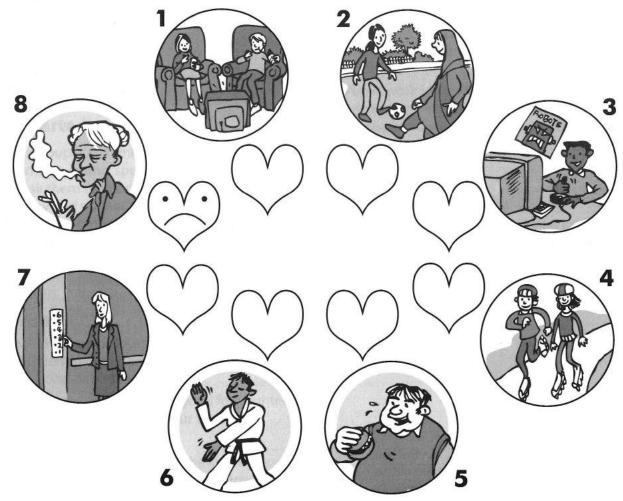
Look and draw.



= good for your heart



= bad for your heart



Read and match.





C



a Ride your bike to school.





b Eat fruit and vegetables.





c Go running.

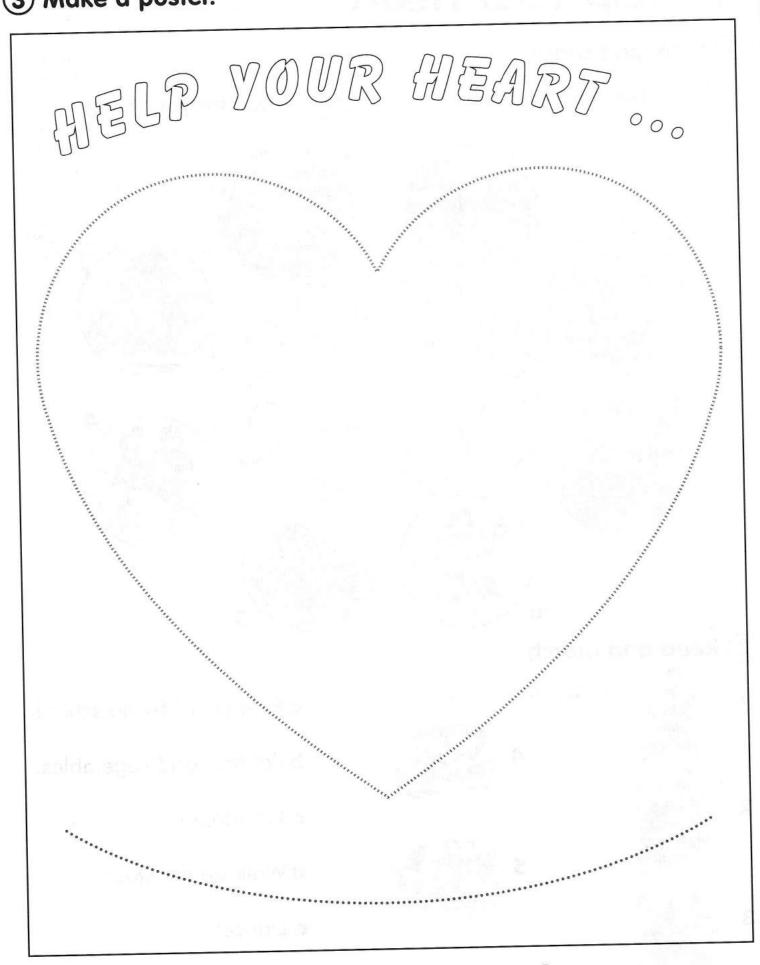


- d Walk up the stairs.
- e Dance!





3 Make a poster.





Happy Teeth

Objectives

- consider good dental health habits
- keep a record of dental health habits

Materials

 photocopies of pages 32 and 33, one of each per pupil

Language

Do you brush your teeth every day? Do you floss every day? Do you eat sugar every day? Yes, I do. No, I don't.

Getting started

Encourage pupils to think about why teeth are important, e.g. eating, speaking, smiling, general health. Ask them to imagine trying to say the word teeth if they had no teeth. Explain that many letters of the alphabet cannot be said without teeth. Ask them to imagine eating an apple or chewing meat without teeth.

Project

1 Look and draw.

Give each pupil a photocopy of page 32. Pupils look at the different pictures and decide whether these items are good or bad for their teeth.

Answers: Items 1, 4, 6 and 8 are good for your teeth. Items 2, 3, 5 and 7 are bad for your teeth.

2 Look and match.

Pupils work in pairs. They look at the information on the poster and match the steps to the correct illustration.

Answers: d1 b2 a3 e4 c5

3 Keep a diary.

Give each pupil a photocopy of page 33. Pupils record how many times a day they brush their teeth over a number of days. They also note down how much sugar they consume. They record their information on the chart.

After a few days, put the pupils in pairs and write the following questions on the board: Do you brush your teeth every day? Do you floss every day? Do you eat sugar every day? Pupils take turns asking each other the questions and then decide if their partner has happy teeth or not.

Follow-up activities

- Divide the class in half and hand out magazines or supermarket brochures and scissors. Explain to the pupils in one half of the class that they are to find pictures of items that are good for their teeth; the other half collects pictures of items that are bad for their teeth. They stick the pictures on large sheets of paper to make 'good' and 'bad' collages to display in class.
- O Pupils work in small groups and design posters to encourage healthy dental habits. The posters can be displayed where pupils from other classes can see them.

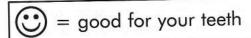
Weblinks

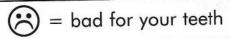
http://www.mouthpower.org Interactive site with advice on dental care. http://www.colgate.com/app/Kids-World/US/ HomePage.cvsp

Downloadable worksheets and puzzles on dental care.

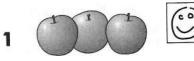
8 Happy Teeth

1) Look and draw.





SCIENCE

















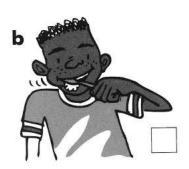






2 Look and match.









Take these steps:

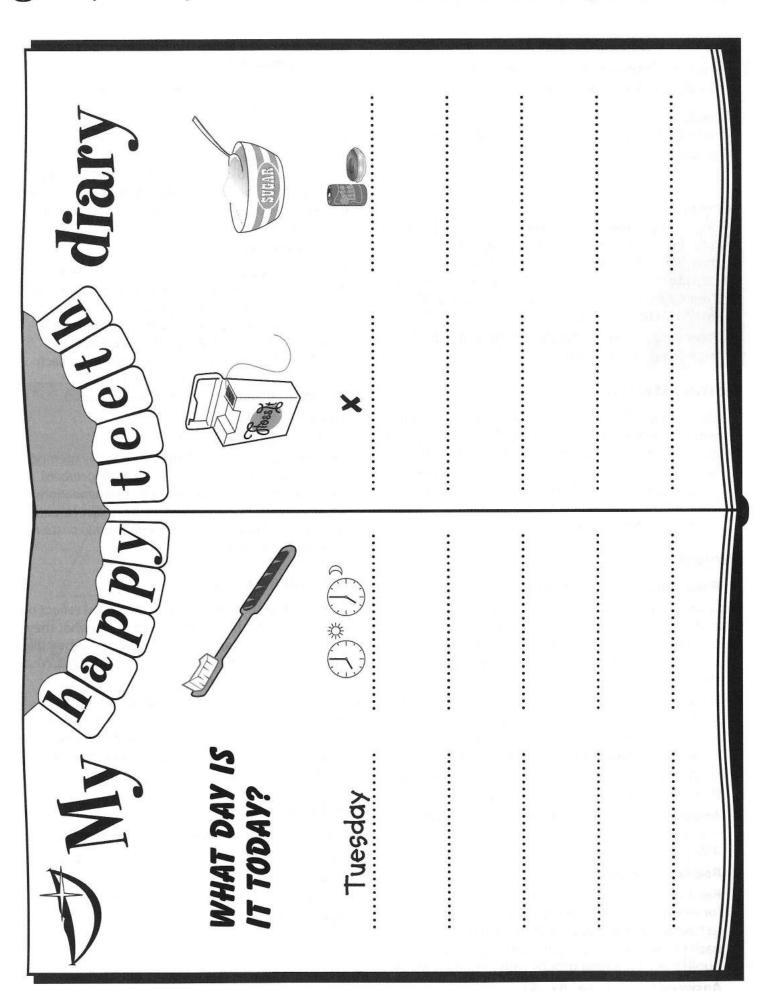
- 1 Ask your dentist how to brush and floss.
- 2 Brush 2 3 times every
- 3 Floss your teeth once every day.
- 4 Drink milk or water not fizzy drinks.
- 5 Eat healthy snacks.







3 Keep a diary.





Food Pyramid Survey

Objectives

- consider the importance of a balanced diet
- conduct an interview and give advice

Materials

- photocopies of pages 35 and 36, one of each per pupil
- scissors
- glue

Language

- beans /'bi:nz/, bread /'bred/, cheese /'tfi:z/, egg /'eg/, fats /'fæts/, fish /'fɪʃ/, fruit /'fru:t/, meat /'mi:t/, milk /'milk/, nuts /'nats/, rice /'rais/, sweets /'swirts/, vegetables /'ved3təbəlz/; breakfast /'brekfəst/, dinner /'dinə/, lunch /'lant f/, snacks /'snæks/; nutritionist /nju:'trɪfənɪst/, serving /'sɜːvɪŋ/
- What did you have for (lunch)? Eat more (fruit and vegetables). Eat less (fats).

Getting started

Elicit names of different meals from the pupils and write the words on the board, e.g. What meal do you eat (in the morning)? What do you eat between meals? Write meals on the board (breakfast, lunch, dinner, snacks). Talk about mealtimes. Ask: What time do you have (lunch)? Elicit typical foods, e.g. What do you usually have for (dinner)?

Project

Read and put in the correct place.

Give each pupil a photocopy of page 35. Pupils look at the pictures on the daily food pyramid. Explain that the items at the bottom of the pyramid should be eaten more often while the items at the top of the chart should be eaten with less frequency.

Explain the meaning of serving (a portion of food or liquid sufficient for one person). Remind pupils that if they eat, for example, a large portion of spaghetti, it would count as two or three servings of pasta.

Pupils cut out the text boxes on the right and stick them onto the food pyramid in the correct places.

Answers: 1 Fats and sweets 2 Milk, yogurt and cheese 3 Meat, nuts, fish, beans and eggs 4 Vegetables 5 Fruit 6 Bread, cereal, pasta and rice

2 Read and match.

Remind pupils that they need food in order to grow, for energy and to stay healthy. Explain that in order to have a balanced diet we should eat items from each of the five food groups every day. In pairs, pupils match the food groups with the descriptions.

Answers: 1e 2d 3a 4c 5b

3 Imagine you are a nutritionist. Interview a friend or family member.

Give each pupil a photocopy of page 36. Write nutritionist on the board and elicit the meaning (a person who gives advice on the right kind of food for good health and growth). Tell the pupils to imagine they are nutritionists. At home, they interview a friend or family member and find out what they ate the previous day. Pupils ask questions, e.g. What did you have for (breakfast)? and complete the chart.

4 Analyse the data.

The following class, pupils work in groups of two or three to analyse and compare their results. First they analyse the food record and tick which food groups the meals are examples of, e.g. if the person has juice and toast for breakfast, they tick bread and fruit. They then add up the total servings for each column and compare the totals with the recommended servings on the food pyramid.

5 Give some advice.

Pupils work together to make a list of recommendations for their friends or family members, e.g. Eat less (meat and sweets). Eat more (vegetables). More advanced pupils can make recommendations such as: (Jo) has/doesn't have a balanced diet. He eats a lot of (fish), but he doesn't eat enough rice and pasta. He should eat (more fruit).

Follow-up activities

- O Pupils look at the interview questions and reflect on their own eating habits. They note down what they eat in a typical day and reflect on whether their diet reflects the recommendations on the pyramid. What can they do to improve?
- Bring in different packets of food with nutrition labels. Explain that these labels include information on serving size, calories, nutrients and fats. Ask them to compare two of their favourite foods and decide which one is healthier.

Weblinks

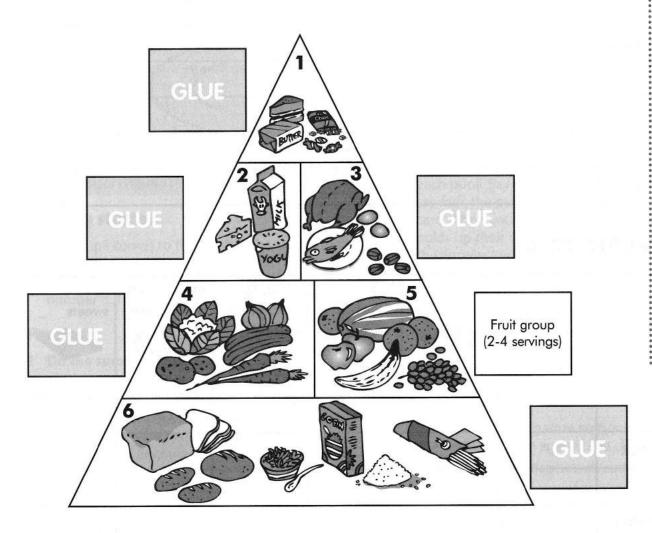
http://kidshealth.org/kid/stay_healthy/food/pyramid.html Information on food groups and daily servings. http://teamnutrition.usda.gov

Select: My Pyramid for Kids for a variety of nutrition activities for class.



Food Pyramid Survey

Read and put in the correct place.



Vegetable group (3-5 servings)

Bread, cereal, pasta and rice group (6-11 servings)

Meat, nuts, fish, beans and eggs group (2-3 servings)

> Fats and sweets (not often)

Milk, yogurt and cheese group (2-3 servings)

(2) Read and match.

- 1 bread and grains
- 2 fruit
- 3 meat, nuts, fish, beans and eggs
- 4 vegetables
- 5 milk and cheese

- a This group provides protein and iron to build strong muscles.
- **b** This group provides calcium for strong bones and teeth.
- c This group gives us vitamin A and keeps our skin healthy.
- d This group contains fibre and provides vitamin C to keep us healthy.
- e This group provides carbohydrates to help us learn, sleep and keep our bodies moving. Fibre helps our digestion.

3 Imagine you are a nutritionist. Interview a friend or family member.

	What did you have for?
breakfast	
a morning snack	
lunch	
an afternoon snack	
dinner	0
an evening snack	

4 Analyse the data.

The state of the s	bread, pasta, cereal and rice	vegetables	fruit	meat, fish, nuts, beans and eggs	milk, yogurt and cheese	fats and sweets
breakfast						
morning snack			7/4	e itte i ge		
lunch	- 1-11					
afternoon snack						
dinner				1	COLUMN TO SERVE	past 1
evening snack					1 5	
TOTAL SERVINGS						

5 Give some advice.

AA a Lina fan	
My advice for	
	·····

Logic Puzzle

Objectives

- use logic to solve puzzles
- make a logic puzzle

Materials

- photocopies of page 38, one per pupil
- photocopies of page 39, one per pair of pupils
- card

Language

- numbers 1 15
- (2) and (3) is (5). Up! Down!

Getting started

One pupil comes to the front of the class and stands with their back to the board. Write a number from 1 to 15 on the board. The pupil guesses what the number is. The other pupils give clues: Up! Down!

Project

1 Do the sums.

Give each pupil a photocopy of page 38. Working individually, pupils work out the sums. When they finish, they compare their answers with a partner. Check answers by asking the pupils to read each sum out loud. Encourage pupils to use the structure 2 and 5 is 7.

Answers: 1 seven 2 thirteen 3 twelve 4 fifteen 5 eleven 6 fifteen 7 twelve 8 thirteen

2 Write the numbers.

Divide the class into pairs. Pupils look at the sums and work out the missing numbers.

Answers: 1 three 2 five 3 five 4 four

3 Make a logic puzzle.

Divide the class into pairs. Give each pair a photocopy of page 39. The pupils stick the puzzle board onto card. Pupils also cut out numbers 1-8 from page 38.

Explain to the pupils that they must place the eight numbers on the square in such a way that all sides equal thirteen. Monitor the pupils and if necessary place a couple of numbers on the board as clues.

Pupils who finish the puzzle quickly can do it again, but this time so that all sides equal fourteen or fifteen.

Suggested solutions: (There are various ways to solve the puzzles.)

All sides equal 13:	All sides equal 14:	All sides equal 15:
148	563	816
7 3	1 7	4 2
562	824	357

Follow-up activities

- O Prepare flashcards with the numbers 1 10.Ten pupils come to the front of the class and stand in a line facing the group. Hand out a number card to each pupil. Say simple sums, e.g. 4 and 6. When you say four, the pupil with number 4 holds up their card. When you say six, the pupil with number 6 holds up their card. When the pupils in the class say the answer (ten), the pupil with the number 10 card spins round once. Repeat this process with other simple sums.
- Find examples of other maths puzzles in magazines and newspapers and on websites, e.g. sudoku. The pupils try to solve the puzzles, working in small groups.

Weblinks

http://www.mymathsgames.com/addition/batman. Online addition game against the clock.

http://www.activityvillage.co.uk/sudoku_for_kids.htm Downloadable sudoku puzzles.



10 Logic Puzzle

1 Do the sums.

1 two + five =seven

 $2 \sin + \text{seven} =$

3 eight + four =

4 eleven + four =

 $5 \sin + two + three =$

6 four + five + six =

7 seven + one + four =

8 eight + two + three =



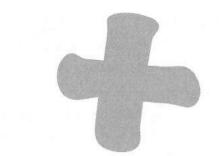
$$1 \ 3 + 7 + 2 = 12$$

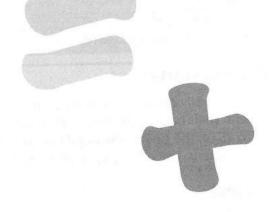
$$34 + \Box + 5 = 14$$

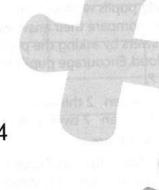
$$23 + \square + 2 = 10$$

4 3 + 2 +
$$\square$$
 = 9

3 Make a logic puzzle.









Puzzle board

	27 24 700	natagg
GLUE	GLUE	GLUE
GLUE		GLUE
GLUE	GLUE	GLUE

Tangrams

Objectives

- use logic to solve puzzles
- solve and create tangram puzzles

Materials

- photocopies of pages 41 and 42, one of each per
- up to 15 photocopies of the resource sheet (page 43), cut into cards
- set of tangram puzzle pieces to model activities
- rulers
- scissors
- coloured pencils

Language

- parallelogram /pærə'leləgræm/, rectangle /'rektæŋəl/, square /'skweə/, triangle /'trarængəl/; numbers 1-7; colours
- It's (a candle).

Getting started

Draw a parallelogram, a rectangle, a square and a triangle on the board. Elicit the names of the shapes.

Project

1 Read and answer the questions. Listen to your teacher and colour.

Give each pupil a photocopy of page 41. Pupils read through the text on tangrams and answer the comprehension questions.

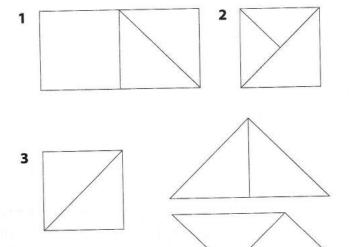
Answers: 1 China 2 five 3 seven

Pupils look at the illustration of the tangram shapes. Say: Colour the square blue. Colour the two big triangles red. Colour the parallelogram yellow. Colour the two small triangles green. Colour the medium triangle pink. The pupils listen and colour.

2 Make a tangram and solve the puzzles.

Give each pupil a photocopy of page 42. Pupils copy the diagram from activity 1 onto their grid. Make sure each pupil has seven pieces. The pupils cut out the pieces.

Encourage the pupils to make shapes using the puzzle pieces. Say: 1 Make a rectangle using the square and two small triangles. Say: 2 Make a square using three triangles (Clue: Use the two small triangles and the medium triangle). Ask: 3 How many shapes can be made using the two large triangles? (Three: a square, a triangle and a parallelogram.) Finally, ask the pupils to put all seven pieces back together to make a square.



In pairs, pupils see if they can form the pictures in activity 2 using all seven pieces. Set a time limit for each one and give help as needed. When the time is up, ask pupils who have solved the puzzle to show others how to do it or give pupils photocopies of the relevant solution from the resource sheet on page 43.

3 Design your own tangram.

Pupils design their own tangram picture. When they are happy with their design, they draw a small picture of it on the grid and complete the information in the space provided. They then challenge their classmates to solve the puzzle. Pupils vote on the most difficult, the easiest and the best tangrams.

Follow-up activities

- Encourage different pupils to name pictures, e.g. house, rocket, man. The pupils work in pairs or groups and have one minute to try to make the picture using their shapes. How many pieces did they use to make the pictures?
- O Pupils draw their tangram pictures in a class book. Tangrams from the book can be used as activities for 'fast finishers' in future classes.

Weblinks

http://pbskids.org/cyberchase/games/area/area.html Online tangram game.

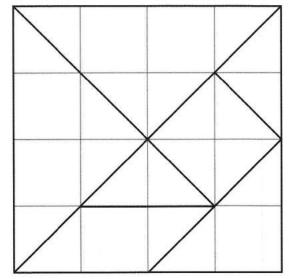
http://members.aol.com/sth777/page3.html Many examples of tangrams.



11 Tangrams

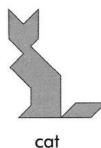
1) Read and answer the questions. Listen to your teacher and colour.

Tangrams are ancient Chinese puzzles.
There are seven puzzle pieces: 5
triangles, 1 square and 1 parallelogram.
To make a tangram you must use all
seven shapes and all pieces must touch



- 1 Where do tangrams come from?
- China
- 2 How many triangles are there?
-
- 3 How many pieces are there in total?
- (2) Make a tangram and solve the puzzles.





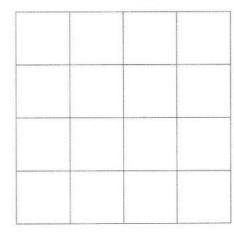




cn

T-shirt

3 Design your own tangram.



This is my tangram picture.

lt's a / an

Tangram grid

		-	
	e nell	Σ τ - 1 ε/ s	9 - 21HF - 11 FF F
		F1, 161 x 1 18 × 1 19	
	geisrug er	este a a un cui	grein albä
Sarly T			B - 1 - 1"

Resource sheet

2 Cat Candle Chair T-shirt

12 Code Breakers

Objectives

- develop reasoning, logic and problem solving skills
- read and write messages in code

Materials

- photocopies of page 45, one per pupil
- up to 4 photocopies of the resource sheets (pages 46 and 47) cut into code cards

Language

clue /'klu:/, code/'kəud/, code breaker /'kəud 'breikə/, keep (something) secret /'ki:p 'si:krət/, letters /'letəz/, machine /ma' firn/, message /'mesida/, receive /ri'sirv/, send / send/; alphabet, numbers

Getting started

Write the 26 letters of the English alphabet in order on the board. Write the number 4 above the letter D and number 1 above the letter A. Write the following coded words on the board: 3 - 1 - 14 // 25- 15 - 21 // 11 - 5 - 5 - 16 // 1 // 19 - 5 - 3 - 18 - 5 -20? See if the pupils can reveal the hidden message. (Answer: Can you keep a secret?)

Project

1 Read and answer the questions.

Give each pupil a photocopy of page 45. Pupils read the text and answer the questions. They compare their answers with a partner.

Answers: 1 To keep important messages secret. 2 They find out the codes. 3 It was a machine which could send and receive messages in code.

2 Break the codes and find out the words.

Pupils work in pairs and try to break the code and find out the words using the clues to help them. When pupils have finished, ask: Which one was the most difficult? Which one was the easiest?

Answers:

1 Hello. (Even numbers are used to replace the letters of the alphabet: A = 2, B = 4, C = 6...)

2 Apple. (Each letter is replaced by the letter which comes before it in the alphabet: B = A, C = B, D = C

3 Bananas. (Letters are used to replace some of the numbers.)

3 Write a message in code.

Pupils continue working in pairs. Give each pair a code card from the resource sheet on pages 46 and 47. They follow the instructions and write a coded message and a clue to help their classmates.

Pupils challenge their classmates to break the codes and read the messages using the clues to help them.

Follow-up activities

- O In groups of three or four, pupils research or invent a new code. They write a message in code for their classmates to solve. Ask each group to write their message on the board. The other groups try to figure out the code. The pupils at the board can give clues.
- O Encourage your pupils to find out more about codes in history, such as the Morse code or the Enigma machine.

Weblinks

http://www.nsa.gov/kids/home.cfm

Select: Codes & Ciphers. Online instructions on making codes.

http://www.iwm.org.uk/upload/package/10/enigma/in dex.htm

Information on codes in history.



12 Code Breakers

(1) Read and answer the questions.

People have used codes for centuries. They use them to keep important messages secret. Code breakers work hard to find out the codes. Julius Caesar invented one of the earliest recorded codes.

In the 1920s, Enigma was invented. Enigma was a machine which could send and receive messages in code. Nowadays people use computers to make and break codes. Codes protect personal information on the Internet.



1 Why do people use codes?	To keep important messages secret.
2 What do code breakers do?	
3 What was Enigma?	

(2) Break the codes and find out the words.

1 Clues:

You say this when you meet someone. Counting in 2s will help you!

16 10 24 24 30

2 Clues:

This is a tasty fruit.

If D = E, what does Z = ?

zookd

3 Clues:

These are not just for monkeys!

11	В	13	14	Α	16
17	С	19	Ν	S	22

12 15 20 15 20 15 21

(3) Write a message in code.

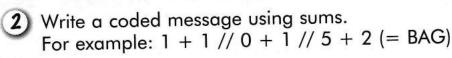
Message:

12A Resource sheet

COPE CARD 1: SUMS COPE

1) Write out the letters of the alphabet and number them 1 to 26.

Α	В	С	D	Е	F	G	
1	2	3	4	5	6	7	



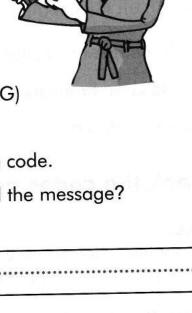
- Write a secret message with your partner.
- Write a clue to help your classmates solve the code.
- 5) Can your classmates solve the code and read the message?

CODE CARD 2: ALPHABET SHIFT

Draw a table with two rows. Write out the letters of the alphabet in order. Underneath write out the letters in order again but move the letters to the right as many spaces as you would like. For example:

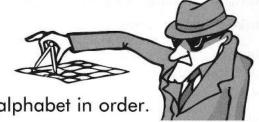
Α	В	С	D	Е	F	G	Н	•••
×	У	z	а	b	С	d	е	

- Write a coded message using the alphabet shift. For example: elt xob vlr ? (= How are you?)
- Write a secret message with your partner.
- Write a clue to help your classmates solve the code.
- Can your classmates solve the code and read the message?



12B Resource sheet

COPE CARD 3: COORDINATES COPE



1) Complete the grid with the letters of the alphabet in order.

	1	2	3	4	5	6
1	а	b	C	d	е	f
2	g	h				
3	4.31				Te comme	
4		'the in		197		
5		- 1	Mark th			

- 2) Write a coded message using coordinates (left, right) to replace each letter. For example: 12, 11, 21 (= bag)
- Write a secret message with your partner.
- Write a clue to help your classmates solve the code.
- Can your classmates solve the code and read the message?

CODE CARD 4: BACKWARDS CODE

1) Write a message.

For example: Do you like pizza?

Write each of the words backwards. For example: od uoy ekil azzip?

- Write a secret message with your partner.
- Write a clue to help your classmates solve the code.
- Can your classmates solve the code and read the message?



MATHS



Geometry Collage

Objectives

- consider 2D and 3D geometrical shapes
- make a shapes collage

Materials

- photocopy of page 49, one per pupil
- glue
- scissors
- magazines
- coloured paper
- 3D objects (a ball, a cube, a rectangular box, a pyramid)

Language

- circle /'ss:kəl/, cube /'kju:b/, cuboid /'kju:boid/, cylinder /'sılındə/, pyramid /'pırəmıd/, rectangle /'rektæŋəl/, square /'skweə/, triangle /'traiæŋgəl/
- This is (a cube).

Getting started

- 1 Draw the following shapes on the board: circle, square, rectangle, triangle. Say the names of the shapes. Pupils listen and repeat. Put the pupils in pairs. One pupil draws a shape with their finger on their classmate's back. Their classmate guesses what shape it is.
- 2 Show a cube, a ball, a rectangular box and a pyramid and ask the pupils to match them to their 2D equivalents: square / cube, triangle / pyramid, rectangle / box, circle / ball.

Project

Look and read.

Give each pupil a photocopy of page 49. Pupils read the texts and look at the images. Explain that we call two dimensional figures 2D and three dimensional figures 3D.

2 Complete the chart. Pupils look at the shapes and decide whether they are 2D or 3D. They fill in the name of the shape using the words in the box to help them.

Answers: 1 2D circle 2 3D cylinder 3 3D cuboid 4 2D rectangle 5 2D triangle 6 3D pyramid

3 Make a collage.

Give out magazines, scissors and glue. Ask pupils to find pictures of 2D and 3D figures in magazines. They make a collage with the shapes they have found. They can also cut shapes out of coloured paper to add to the images they have found in the magazines.

Divide the class into pairs. Each pupil describes their collage to their partner and names the different shapes they have found.

Follow-up activities

- Encourage pupils to find out about and draw other 2D and 3D shapes, e.g. cone, pentagon, tetrahedron, sphere, parallelogram, prism.
- O Give out drinking straws and modelling clay. The pupils arrange straws on the table to make 2D shapes. They can also make 3D shapes by standing the straws in the modelling clay. Pupils compare their shapes. Talk about how many sides the 3D shapes have and what shape the sides are. Ask the pupils to count how many edges the shapes have.

Weblinks

http://www.bbc.co.uk/schools/revisewise/maths/shape /14_act.shtml

Tasks to get children thinking about 2D and 3D shapes. http://www.primaryresources.co.uk/online/longshape 3d.html

Review of 3D shapes.



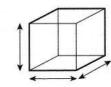
Geometry Collage

(1) Look and read.

This is a line. It has got one dimension.

This is a square. It has got two dimensions.





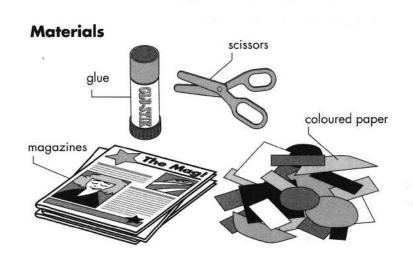
This is a cube. It has got three dimensions.

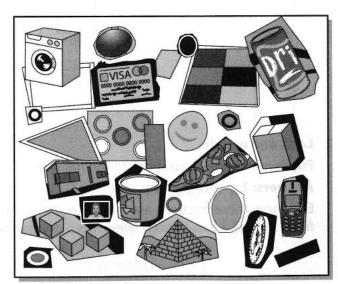
2 Complete the chart.

pyramid cuboid cylinder rectangle triangle circle

11 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1 / 1	1	2	3	4	5	6
2D or 3D?	2D		_ + 1	- 1	an the will the	rapin d
Name of shape	circle	# 1 m	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0			

3 Make a collage.





MATHS



Flags and Fractions

Objectives

- reinforce understanding of fractions
- design a class flag

Materials

- photocopies of pages 51 and 52, one of each per pupil
- rulers
- coloured pencils
- world map poster

Language

- a half/ə 'haːf/, three fifths /'θriː 'fɪθs/, one quarter /'wan 'kwo:tə/, three quarters /'θri: 'kwo:təz/, five sixths /'faiv 'sikθs/, one third /'wan 'θ3:d/, two thirds /'tu: '03:dz/
- Our flag is (one third green, one third yellow and one third pink). It has (three stars and a moon).

Getting started

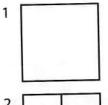
Draw a square on the board. Ask: What's this? (a square). Divide the square in half. Ask: How many parts are there? (two). Write the number 2 on the board. Colour in one part. Ask: How many parts are coloured? (one). Write the number 1 on the board above the number 2 to make the fraction $\frac{1}{2}$. Point to the coloured part of the square and say: a half.

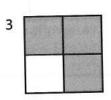
Project

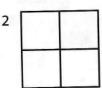
Read and follow the instructions.

Give each pupil a photocopy of page 51. They follow the instructions for the activity.

Answers:









2 Look and match.

Pupils match the illustrations to the fractions.

Answers: 1 e 2 c 3 a 4 b 5 d

Elicit how these fractions are said in English: 1 threefifths, 2 a half, 3 two-thirds, 4 five-sixths, 5 one quarter.

3 Read, match and colour.

Explain that a number of flags use simple fractions in their design. Pupils look at the flags and find the countries they are from on the world map. Pupils read the texts, decide which flag is being described and colour as appropriate.

Answers: 1 a 2 c 3 d 4 e 5 b

4 Design a class flag.

Give each pupil a photocopy of page 52. Pupils work in small groups. Tell them to design a flag for their class. They should think about colours and symbols that would be appropriate for a class flag. When they have designed and coloured their flag, they complete the information about it, e.g. Our flag is $\frac{1}{3}$ red, $\frac{1}{3}$ purple and $\frac{1}{3}$ white. It has a bird and three stars. Allow time for pupils to compare and contrast the flags. Which flags are similar? Vote on the flag that the class likes best. Display the winning flag on the class noticeboard.

Follow-up activities

- Draw a large circle on the board. Explain to the class that this is a pizza and that you want to share the pizza with four friends. How would you cut the pizza so everyone gets a piece the same size? Do the same for three, five, six and eight pieces, allowing pupils to illustrate their suggestions on the board.
- Encourage pupils to find out about other flags which use simple fractions in their design. Pupils can draw the flags in their notebooks and find the countries on the world map.

Weblinks

http://www.infoplease.com/ipa/A0201477.html Flags from around the world. http://www.321know.com/fra16_x2.htm Practice with simple fractions.



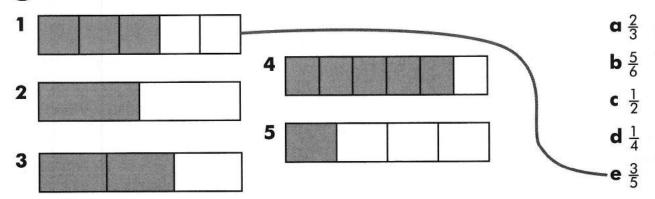
Flags and Fractions

- Read and follow the instructions.
 - Draw a square.
- 2 Divide it into four equal parts.
- 3 Colour three parts.

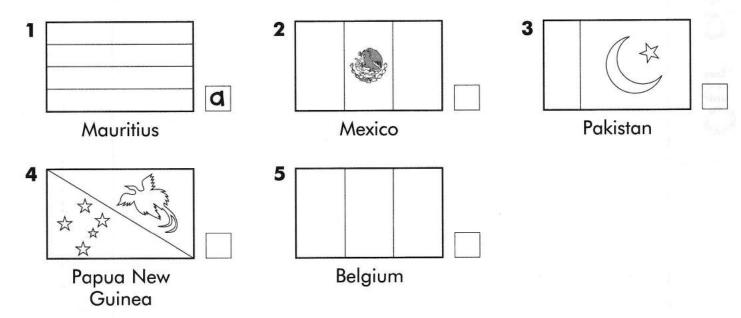
4 Write the fraction of the box that is coloured. coloured parts

total parts

(2) Look and match.



(3) Read, match and colour.



- **a** This flag is $\frac{1}{4}$ red, $\frac{1}{4}$ blue, $\frac{1}{4}$ yellow, $\frac{1}{4}$ green.
- **b** This flag is $\frac{1}{3}$ black, $\frac{1}{3}$ yellow, $\frac{1}{3}$ red.
- **c** This flag is $\frac{1}{3}$ green, $\frac{1}{3}$ white, $\frac{1}{3}$ red. There is a brown eagle in the centre.
- **d** This flag is $\frac{1}{4}$ white, $\frac{3}{4}$ green. There is a white moon and star on the flag.
- **e** This flag is is $\frac{1}{2}$ red, $\frac{1}{2}$ black. It has five white stars and a yellow bird.

4 Design a class flag.



Our flag is



15 Symmetry Everywhere

Objectives

- reinforce understanding of symmetry
- investigate symmetry in our daily lives

Materials

- photocopies of page 54, one per pupil
- a square shape and a parallelogram shape, cut out of paper

Language

asymmetrical /'æsı'metrikəl/, horizontal /'horizontəl/, line of symmetry /'lam of 'smotri/, symmetrical /sı'metrıkəl/, vertical /'va:tikəl/; letters of the alphabet

Getting started

- 1 Hold up a square. Ask: Is this shape symmetrical? Encourage different pupils to come to the front of the class and fold the square in half along one of the lines of symmetry. Say: Yes, a square is symmetrical.
- 2 Hold up a parallelogram cut out of paper. Ask: Is this shape symmetrical? Encourage different pupils to come to the front of the class and fold the parallelogram in half to show that both sides are not the same when folded. Say: No, a parallelogram is not symmetrical.

Project

Look and write ✓ or X.

Draw the letter A on the board. Ask the class if this letter is symmetrical or not. Draw a vertical line down the centre to indicate the line of symmetry. Draw the letter B on the board. Draw a horizontal line across the centre to indicate the line of symmetry. Explain that some letters are not symmetrical, e.g. F.

Give each pupil a photocopy of page 54. Pupils work in pairs and tick the letters that have reflection symmetry.

Answers: The following letters are symmetrical: A, B, C, D, E, H, ŢK, M, O, T, U, V, W, X, Y.

The following letters are asymmetrical: F, G, J, L, N, P, Q, R, S, Z

2 Complete the Venn Diagram.

Pupils work in pairs. They complete the Venn Diagram using the information from activity 1 to help them.

Answers:

The following letters have horizontal symmetry: B, C, D, E, K

The following letters have vertical symmetry: A, M, T, U, V, W, Y

The following letters have both lines of symmetry: H, O, IX.

3 Which items are symmetrical? Look and tick.

Pupils tick the items that are symmetrical, then check their answers with a partner.

Answers: 1, 2, 3 and 6 are symmetrical.

4 Look around you.

Ask pupils to find other examples of symmetry around them at home, at school and outside. Ask them to draw the items or cut out pictures from magazines. They should indicate the line of symmetry on the picture (vertical, horizontal or both) and write the name of the object next to the picture. Encourage them to look up any words they need in the dictionary.

The following class, look at the pictures pupils have collected. Pupils compare and contrast their work. Who found the most examples? Which is the most common object? Which is the most unusual?

Follow-up activities

- O Encourage pupils to find more examples of shapes which are symmetrical, e.g. hexagon, cone. They draw the shapes in their books and mark the lines of symmetry.
- Ask pupils to investigate other forms of symmetry, such as translation, glide reflection and rotation.

Weblinks

http://www.bbc.co.uk/schools/gcsebitesize/maths/ shape/symmetryrev2.shtml

Description of reflection symmetry and lines of symmetry

http://www.linkslearning.org/kids/1_math/2_illustrated _lessons/4_line_symmetry/index.html

Online presentation of symmetry around us.



15 Symmetry Everywhere

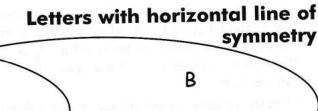
1) Look and write 🗸 or 🗴.

	Α	В	С	D	Е	F	G	Н	I	J	K	L	М
Is it symmetrical?	~		. mine			×	heary LLITS	T print	0 1 1 1 1 0 0 1 4 3 r			986-11 2463	
TT_A v Teda oce	N	0	Р	Q	R	S	Т	U	٧	W	Х	Υ	Z
Is it symmetrical?		-	n' se			1		Santa.			16	e Iniv.	

I

2 Complete the Venn Diagram.

Letters with vertical line of symmetry



3 Which items are symmetrical? Look and tick.

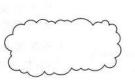


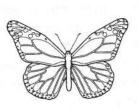






5





(4) Look around you.









Music Materials

Objectives

- raise awareness of recycling
- make a musical instrument

Materials

- photocopies of page 56, one per pupil
- up to 8 photocopies of the resource sheets (pages 57 and 58), cut into instruction cards
- materials to be recycled (In the previous class, ask pupils to bring in as many of the following items as they can: cardboard tubes, shoe boxes, coffee tins, plastic containers, plastic bottles. Items should be empty and clean.)
- scissors
- glue
- elastic bands
- string
- sticky tape
- rice, lentils or beans
- tissue paper

Language

glass /'glass/, metal /'metal/, paper /'perpa/, plastic /'plæstik/; drum /'drxm/, flute /'flu:t/, guitar /gr'ta:/, shaker /'feikə/

Getting started

Thank pupils for bringing items to be recycled to the class, and ask them to place them on the desks in front of them. Ask: What materials can we recycle? Elicit materials which can be recycled by pointing to items pupils have brought in: (plastic, paper, metal.) Ask: Do you recycle? What do you recycle? Where do you recycle?

Project

1 Look and draw.

Give each pupil a photocopy of page 56. Pupils look round the classroom at the items they have brought in and decide which bin each item should go in. They draw a picture of each item in the appropriate bin. Elicit glass items which can be recycled, e.g. bottles, jars.

Example answers: paper: cardboard tube, shoe box; plastic: containers, bottles; metal: coffee tin; glass: bottles, jars.

2 Make a musical instrument.

Have ready scissors, glue, elastic bands, string, sticky tape, rice or beans and tissue paper for the pupils to use. Divide the class into small groups. Divide the class carefully so that each group has a number of recyclable items between them. Give each group photocopies of the instruction cards on the resource sheets on pages 57 and 58. Pupils read through the list of materials needed and decide which instruments they can make. The group can also invent their own instruments.

When the pupils have finished their instruments, ask them to think of a song that they can perform using them. The groups perform impromptu concerts using the instruments their group made. At the end of the concerts, the class votes on the group that performed the best.

Follow-up activities

- O Elicit the names of different musical instruments, e.g. guitar, piano, violin, drum, flute, trumpet. Write wind, string and percussion on the board. Pupils think of as many instruments as they can for each category.
- O Pupils think of other musical instruments they can make or think of other ways we can recycle material. For example: cans and tins can be used as pencil holders or to store paper clips; detergent boxes can be decorated to make bins; shoe boxes can become puppet theatres.

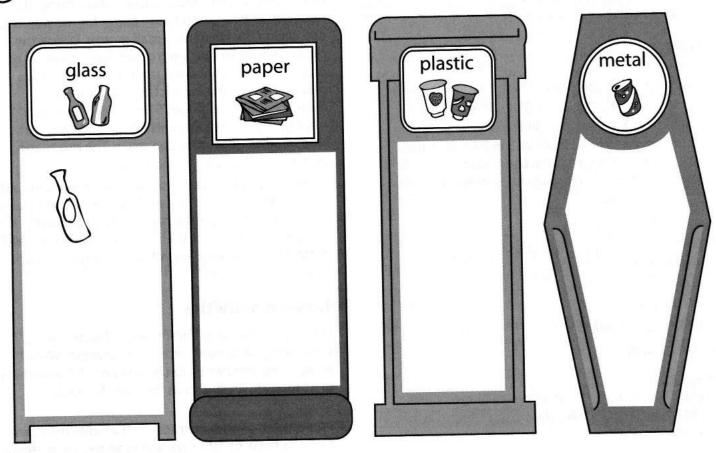
Weblinks

http://www.makingfriends.com Lots of crafts made from recycled materials. http://www.enchantedlearning.com/music/instruments/ Graded information on a variety of musical instruments.

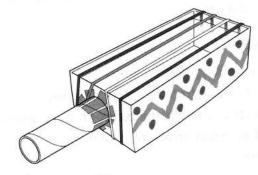


Music Materials

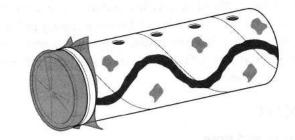
1 Look and draw.



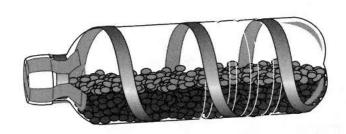
2 Make a musical instrument.



shoe box guitar



cardboard tube flute



plastic shakers



coffee tin drum

16A Resource sheet

Shoe box guitar



Cardboard tube flute 2

You need:





elastic bands



a cardboard tube



sticky tape



• scissors \geq

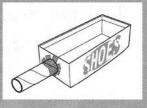


Instructions:

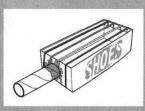
1 Cut a hole at the end of the box.



2 Put the tube in the hole and secure with sticky tape.



3 Use elastic bands to make the guitar strings.



- 4 Decorate your guitar.
- 5 Play the guitar!

You need:

a cardboard tube



• tissue paper



an elastic band

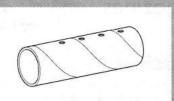


• pencil

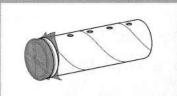


Instructions:

1 With a pencil, make holes in the cardboard tube.



2 Place a square of tissue paper over one end of the roll and secure with an elastic band.



- 3 Decorate your flute.
- 4 Play the flute!



16B Resource sheet

Plastic shakers

3

Coffee tin drum 4

You need:

 plastic bottles or plastic containers



sticky tape



 beans, lentils or rice



• scissors



glue



magazines



Instructions:

1 Decorate the containers and half fill with rice, beans or lentils.



2 Close and secure with tape.



3 Play the shakers!

You need:

• a coffee tin



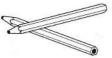
• scissors \geq



magazines



pencils

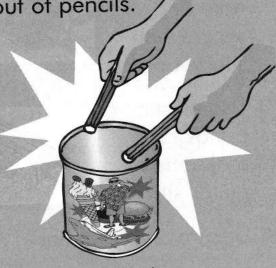


Instructions:

1 Decorate the coffee tin.



2 Make drumsticks out of pencils.



3 Play the drums!



17 Are You a Water Waster?

Objectives

- consider the importance of water in our daily lives
- learn about ways to save water
- conduct a survey and collate results

Materials

- photocopies of pages 60 and 61, one of each per pupil
- bottle of water

Language

- water saver /'worta 'serva/, water waster /'worta 'wersta/
- Do you usually have showers? When you brush your teeth, do you turn off the tap? When you wash your hands, do you turn off the tap? When you wash the dishes, do you use a bowl?

Getting started

Place a bottle of water at the front of the room. Pupils think about their daily routines and all the times in the day they need water. Elicit some ideas, e.g. to brush teeth, to drink, to wash your face, to wash your hands, to use the toilet.

Project

1 Why is water important? Look and match.

Give each pupil a photocopy of page 60. Pupils look at the pictures and write the correct letter next to each picture.

Answers: 1b 2a 3d 4f 5e 6c

Remind pupils of the importance of water for human beings. We can go for many days without food but not without water. Not everyone in the world has easy access to clean water. Many children in poorer countries do not have access to clean drinking water or have to walk long distances to get water.

2 Who's wasting water?

Pupils work in pairs. They look at the pictures and write the appropriate symbol next to each.

Answers: The people in pictures 3, 5 and 8 are saving water. The people in pictures 1, 2, 4, 6 and 7 are wasting water.

Talk about what the people are doing here which wastes water. (The people in pictures 1 and 2 have not turned off the tap when brushing their teeth or doing the washing up. In picture 4, running a bath instead of taking a short shower wastes a lot of water. In picture 6, not turning off the hose when

you are not using it wastes water. In picture 7, using the toilet as a bin uses unnecessary water.)

3 Take part in a survey. Answer the questions yes or no.

Pupils work in groups of five or six. Give each pupil a photocopy of page 61. They look at the questions and answer them individually. When they have answered the questions, the group appoints a secretary to record the total number of *yes* and *no* answers for the group.

4 Record the results.

Pupils then record their group's answers on the graph by colouring in a blue square for each *yes* answer and a red square for each *no* answer.

Pupils decide if they are water savers (the majority of answers are coloured blue) or water wasters (the majority of answers are coloured red) and tick the appropriate box.

Display the graphs and results, allowing time for pupils to reflect on their habits.

Follow-up activities

- O Write the word water inside a circle on the board. Pupils work in pairs and make a spider diagram to illustrate where they use water at school, at home or in the neighbourhood, e.g. at school: sink, drinking fountain.
- O At break time, pupils work in pairs and check how many drinking fountains and taps they find at school. The next day at break time they observe one of these spots to see if they find any pupils wasting water. The following class, they report their findings.

Weblinks

http://www.wateruseitwisely.com/index.shtml Select: *Educational Tools* for games teaching ways to use water wisely.

http://www.collingwood.sutton.sch.uk/Energy%20Saving/ESWater2.htm

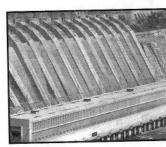
Tips for saving water.

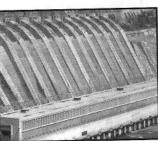
17 Are You a Water Waster?

1) Why is water important? Look and match.















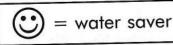


- a hydroelectric power
- **d** transport

- **b** drinking
- e food

- c cleaning
- f fun

2) Who's wasting water?





= water waster





























3 Take part in a survey. Answer the questions yes or no.

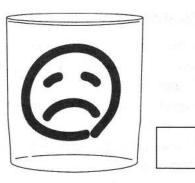
		YES	NO
	Do you usually have showers?		70% 79% 12/8
r i d	When you brush your teeth, do you turn off the tap?		
T. 11/1/1	When you wash your hands, do you turn off the tap?		g carry
	When you wash the dishes, do you use a bowl?		interior

4 Record the results.

YES = blue NO = red

	2	2	2	2	2	2	2
Do you usually have showers?							te a (ans
When you brush your teeth, do you turn off the tap?	one i	274	111				0 501 K
When you wash your hands, do you turn off the tap?			134- 4	. 11 101	717.		
When you wash the dishes, do you use a bowl?				1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -			ed a

We are ...



... water wasters.



... water savers.



18 Pollution Solutions

Objectives

- learn about ways to stop pollution
- encourage classmates to take responsibility towards the environment

Materials

- photocopies of page 63, one per pupil
- coloured pencils
- paper for making posters and brochures

Language

- pollution /pə'lu:fən/, rubbish /'rʌbɪf/
- Walk to school. Ride your bike. Recycle bottles. Throw your rubbish in a bin. Don't dump rubbish. Don't leave rubbish on the beach. Don't waste electricity. Don't go to school by car.

Getting started

- 1 Write the word pollution on the board. Explain that pollution is anything that harms our surroundings, e.g. smoke from cars and lorries.
- Write the word rubbish on the board. Ask pupils if they can see any examples of rubbish in the classroom or looking out of the window. Explain that rubbish is a major cause of pollution.

Project

1 Find the examples of pollution.

Give each pupil a photocopy of page 63. Pupils look at the illustrations and decide which ones are examples of pollution. They draw a happy face next to ways to stop pollution and a sad face next to causes of pollution.

Answers:

The following are good habits: 1 3 4 6 The following are bad habits: 2 5 7 8 (Picture 8 shows someone wasting electricity. This is a form of pollution, as the process of generating electricity itself produces pollution.)

Invite pupils to share their experiences of pollution in their area or at school. Talk about types of pollution not illustrated in the pictures, e.g. noise pollution, industrial pollution, water pollution.

2 Look and write sentences.

Pupils look back at the pictures in activity 1 and write sentences giving advice for each one.

Suggested answers:

- 3 Recycle bottles.
- 4 Throw your rubbish in a bin.
- 5 Don't leave rubbish on the beach.
- 6 Ride your bike.
- 7 Don't go to school by car.
- 8 Don't waste electricity.

Brainstorm additional ways pupils can reduce pollution and write the suggestions on the board, e.g. share the ride to school, reuse plastic bags, recycle paper, deposit used batteries in special bins.

3 Influence your classmates!

Pupils work in small groups of three or four. Explain that their mission is to encourage other pupils to adopt a new good habit. They decide on one way to stop pollution - using the ideas already discussed in class or their own ideas. They then decide which of the illustrated means of communication would be most effective for their fellow pupils. Finally, they plan what tasks need to be done and which members of the group will do each task. Suggest pupils show you a rough draft of their work before producing the final version.

In the following class, the groups display their projects or give their presentations to the class. Pupils evaluate one another's projects and vote on the most successful projects. Put up the winning projects where pupils from other classes can see them, or pupils make their winning presentations to pupils in other classes.

Follow-up activities

- O Write the words air, land and water on the board. Pupils brainstorm examples of each type of pollution and discuss possible solutions.
- Clean the outside part of one of the windows in class. One week later, wipe the same window with a dry tissue. Discuss possible reasons for how the window got dirty.

Weblinks

http://www.ecokids.ca/pub/fun_n_games/index.cfm Webpage with online games and environmental information.

http://www.epa.gov/region5/publications/happy/ happy.htm

Colouring pages, ideas and activities about pollution and recycling.



Pollution Solutions



















(2) Look and write sentences.

dump go leave ride recycle throw walk waste

1 Walk to school.

2 Don't dump rubbish.

6

.....

(3) Influence your classmates!



brochure









presentation



Community Thank You

Objectives

- learn about people whose jobs have an impact on our daily lives
- make a thank you card

Materials

- photocopies of page 65, one per pupil
- coloured card
- coloured pencils
- materials to decorate the cards, such as stickers or glitter and glue

Language

- home /'houm/, neighbourhood /'neɪbəhud/, school /'skuil/; bus driver /'bas 'draivə/, cleaner /'kli:nə/, cook /'kuk/, fire fighter /'farə 'fartə/, postman /'pəustmən/, teacher /'ti:t[ə/; family members
- Thank you! Thanks for helping me!

Getting started

Teach / Revise the following jobs: bus driver, cleaner, cook, fire fighter, postman, teacher. First, mime each of the jobs and ask pupils to copy the mimes. Then do the actions with the pupils and say the jobs at the same time. Then say the jobs - pupils repeat and do the appropriate mimes.

Project

1 Read and match.

Give each pupil a photocopy of page 65. Explain to pupils that there are a number of different people in our community who help us. Pupils read the sentences and match the sentences to the correct job.

Answers: 1 d 2 f 3 a 4 b 5 c 6 e

Look and write.

Pupils match jobs and places. Write the words home, school and neighbourhood on the board. Elicit from pupils the names of people who help them at home, e.g. mother, grandad, sister, cousin. Pupils find the home box and write one or two of these family members there. They then look back at the jobs in activity 1 and write the name of each job in the appropriate box: school or neighbourhood.

Example answers:

Home: cousin, mother School: bus driver, cleaner, cook, teacher Neighbourhood: fire fighter, postman

3 Make a thank you card.

Pupils think of someone who helps them at school or at home and make a thank you card. They draw a picture on the front of the card and complete the card with one of the greetings shown. Pupils give the cards to the person they wish to thank. The following class, pupils can talk about how people responded to their thank you cards.

Follow-up activities

- In small groups, pupils choose a community helper, e.g. a fire fighter. Ask them to find out the answers to the following questions: Where do they work? (They work in the fire station.) What special clothes do they need? (They need boots, a helmet and a jacket.) What do they do? (They put out fires and rescue people.) Pupils illustrate the answers to the questions. This activity can also be used to produce class posters.
- O Talk about what pupils want to be when they grow up. Pupils draw a picture of themselves doing the job. They write a sentence describing the job and another sentence explaining why they want to do this job.

Weblinks

http://www.enchantedlearning.com/dictionarysubjects /people.shtml

Graded information on people and occupations. http://www.coloring.ws/people.htm

Community helpers colouring pages.



19 Community Thank You

- 1) Read and match.
- 1 He delivers my letters.
- 2 They clean my school.
- 3 She drives the school bus.
- 4 They put out fires.
- 5 She makes my school lunch.
- 6 He helps me learn English.



bus driver



firefighter



cook



d

postman

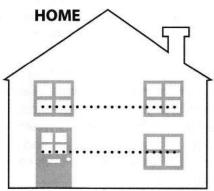


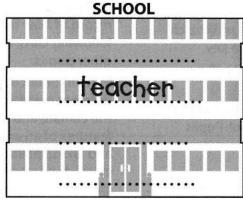
teacher

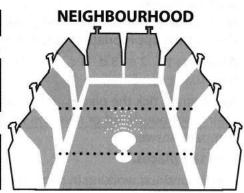


cleaner

2 Look and write.

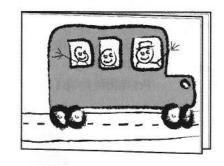






3 Make a thank you card.









Map Makers

Objectives

- consider the importance of certain buildings to the community
- design a map
- use a map key and map coordinates

Materials

- photocopies of pages 67 and 68, one of each per pupil
- coloured pencils
- local map

Language

- bank /'bænk/, bridge /'brid3/, fire station /'faio 'sterfan/, hospital/'hospital/, park/'park/, post office /'paust 'pfis/, restaurant /'restaront/, river /'riva/, school/'sku:l/, supermarket/'su:pəma:kit/; neighbourhood /'nerbəhud/; letters and numbers
- Is there a (park)? Yes, there is. No, there isn't. Where is it? It's in (F2).

Getting started

Put the local map on the board and ask pupils to point to places they are familiar with. If the map has a key, encourage them to use the key to help them.

Project

1 Look and match.

Give each pupil a photocopy of page 67. In pairs, pupils look at the names of the places and match them to the appropriate symbols in the key.

Answers: 1f 2e 3d 4c 5a 6b 7j 8h 9g 10i

Ask them to tick the places which can be found in their neighbourhood or near the school. Pupils compare answers.

2 Find the places.

Pupils continue working in pairs. They look at the map. Go through the example dialogue with the pupils and ask: Is there a bank? (Yes, there is.) Ask: Where is it? (It's in C4.) Show them that to give a map reference they look first at the letter and then at the number. Now do the next question as a class and ask: Is there a hospital? (Yes, there is.) Where is it? (It's in A2.) Pupils continue the activity.

Answers: There isn't a restaurant or a fire station. Coordinates for the other places are: bank (C4) hospital (A2) park (F2) post office (D3) school (A5) supermarket (B3).

3 Design your ideal neighbourhood.

Give each pupil a photocopy of page 68. In pairs, pupils imagine they are town planners and are designing their ideal neighbourhood. They choose the six buildings or places they think are most important in the community and create a symbol for each. They can choose six places from activity 1 or use their own ideas, e.g. swimming pool, sports centre, cinema. They draw the symbols in the key. The symbols should be different from those in activity 1.

Pupils decide where the roads will go and whether there will be a river. They draw the map of their ideal neighbourhood, including the six buildings or places and as many houses as they wish.

In the following class, pupils compare their maps with other pairs and find out what buildings the others have chosen: Is there a park? Yes, there is. / No, there isn't. What's this? It's a police station. Where's the hospital? It's in A2.

Discuss as a class. Are there any buildings that everyone has on their map? Is there a hospital? Is there a school? Talk about pupils' choices and encourage them to assess the importance of different buildings and places in their community.

Follow-up activities

- O Pupils make a list of buildings in the community, e.g. shops, banks, hotels, restaurants. They go for a walking tour of the neighbourhood keeping a record of how many of these buildings they see. The following class, they compare their answers with other pupils.
- Bring in or encourage pupils to find examples of different maps, e.g. climate maps (information about the climate and rainfall); physical maps (physical features of an area, such as the mountains, rivers and lakes); political maps (showing borders and cities); topographic maps (using contour lines to show elevation of an area).

Weblinks

http://www.bbc.co.uk/schools/barnabybear/games/ map.shtml

Online snap game with map symbols.

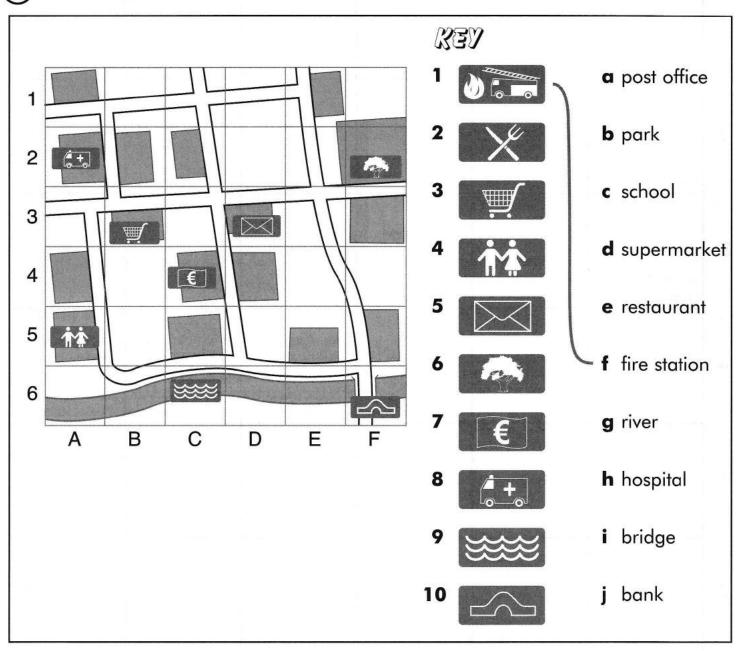
http://www.enchantedlearning.com/geography/ mapreading

Printable maps and map activities.



Map Makers

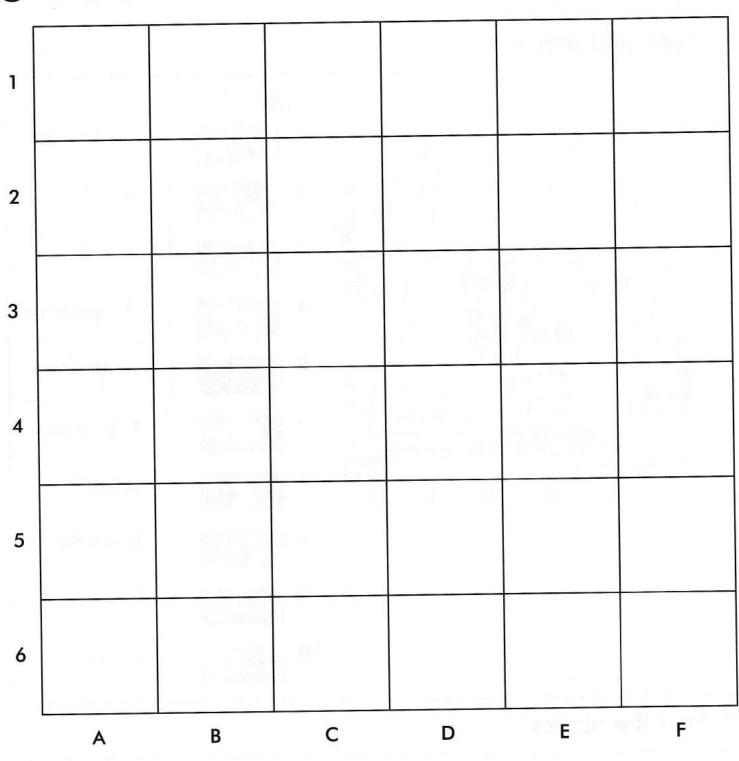
(1) Look and match.



(2) Find the places.

bank fire station post office restaurant hospital park school supermarket Is there a bank? Where is it? Yes, there is. It's in C4. No, there isn't.

3 Design your ideal neighbourhood.



KEN



21 Technology Tour

Objectives

- consider the impact of modern technology on our daily lives
- discuss advantages and disadvantages

Materials

photocopies of pages 70 and 71, one of each per

Language

- camera /ˈkæmrə/, computer /kəmˈpjuːtə/, digital camera /'did3itəl 'kæmrə/, e-mail /'i: meil/, fire /'faiə/, laptop /'læptop/, letter /'letə/, mobile phone /'məubail 'fəun/, MP3 player /'em 'pi: 'θri: 'pleɪjə/, radiator /'reidieitə/, telephone /'teləfəun/, walkman /'wo:kmən/
- You can (keep a lot of information on it). It's easy to (contact your friends). You need to (learn how to use it).

Getting started

Ask pupils what they think of when they hear the word technology. Ask the pupils questions about items in the classroom, e.g. Are your trainers examples of technology? Is your pen an example of technology? Is your mobile phone an example of technology? The answer to all these questions is yes. Explain that technology is not just the computers and high-tech equipment that we tend to think of today. Technology is equipment developed using the latest scientific or industrial knowledge and designed to make life easier or better. Tell them that technology has existed for as long as human beings have.

Project

1 Look and match.

Give each pupil a photocopy of page 70. Explain that the items on the left are early versions of common objects in our lives today. Pupils look and match the items to the modern-day equivalent.

Answers: 1 e 2 c 3 a 4 d 5 f 6 b

2 Read and identify.

In pairs, pupils read the list of advantages and disadvantages and decide which item from activity 1 they refer to (a computer).

3 Write advantages and disadvantages.

Pupils pick another item from activity 1 and make a list of advantages and disadvantages. They read their lists to another pair who guess which item they are discussing.

4 Take part in a technology tour.

Ask: Can you imagine your life without technology? What would be different? Give each pupil a photocopy of page 71. Pupils walk through their neighbourhood or local town for fifteen minutes and tick the things they see. They draw two other technology items that they see in boxes 9 and 10. The following class, they circle the three items they saw most. They decide which item they consider to be the most important. Discuss as a class. Encourage pupils to explain why they think particular items are important. Take a class vote on the most important item. Is it possible to reach agreement in the class?

Follow-up activities

- Write transport, entertainment and communication on the board. Elicit an example of a technological advance for each category, e.g. transport: aeroplane; entertainment: MP3 player; communication: mobile phone. Pupils brainstorm as many items as they can.
- O Find information on the person or people who invented the telephone (Alexander Graham Bell), the aeroplane (The Wright Brothers) or the first commercial laptop (Adam Osborne). Pupils find out the answers to the following questions: When was the object invented? Where is the inventor from? How did the invention change people's lives? What is this object used for today? How can it be improved in the future?

Weblinks

http://www.brainpop.com

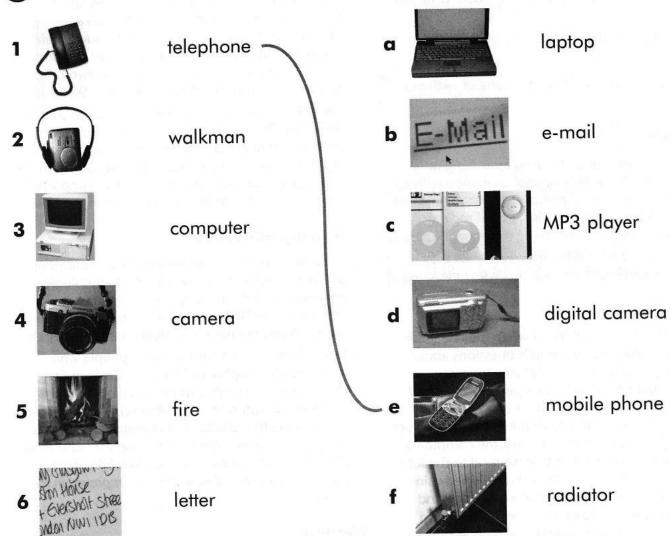
Select: technology for lots of information on different technological advances.

http://www.oag.state.ny.us/family/kids/littlekids.html Select: technology for a range of activities on computers and the Internet.



Technology Tour

(1) Look and match.



2) Read and identify.

Advantages:

You can keep a lot of information on it. You can play music on it too. It's easy to contact your friends.

Disadvantages:

You need to spend money on updates. You need to learn how to use it. You can waste a lot of time on it.

3) Write advantages and disadvantages.

Advantages:	
£	
Disadvantages:	

4 Take part in a technology tour.

Write ✔ each time you see an item. Draw other items you see in boxes 9 and 10.						
1			6	OPEN		
2			7			
3			8			
4			9			
5			10	and a second of the second of		



22 Landscape Collage

Objectives

- learn about different geographical landscapes
- make a collage

Materials

- photocopies of page 73, one per pupil
- photos of landscapes around the world
- magazines or brochures
- glue
- scissors
- paper for making posters
- optional: craft materials, such as string or cotton wool

Language

coast /'kəust/, country /'kʌntrɪ/, desert /'dezət/, rainforest /'reinforist/, urban /'ɜːbən/; buildings /'bildinz/, field /'fi:əld/, flowers /'flauwəz/, forest /'forist/, park /'paːk/, river /'rɪvə/, sand /'sænd/, sea /'si:/

Getting started

Put up photos of different landscapes on the board. Discuss the landscapes with the pupils and find out which landscapes they prefer. Ask: Which picture do you like? Why / Why not?

Project

1 Look and match.

Pupils look at the landscapes and match.

Answers: 1b 2e 3d 4a 5c

2 Complete and tick.

Pupils write the name of their favourite place and tick the features which are typical to this type of landscape. They can draw their own features in boxes 9 and 10. They compare their finished illustrations with a partner.

3 Make a collage.

Pupils work in pairs. They choose one of the geographical landscapes from activity 1 and draw their own interpretation of it. They colour the landscape by tearing or cutting out scraps of coloured paper from magazines or brochures and pasting them on their picture. They can also find photos of typical features and add them to the collage. String or wool can be used to give the picture more texture.

Display the landscapes around the room. Ask pupils to decide which type of landscape each collage represents and vote on the collage they like best.

Follow-up activities

- O Pupils make lists or draw examples of typical features for the five different landscapes discussed, e.g. desert: cactus, camels, oasis; coast: beach, sandcastles, shells. Pupils compare their findings and brainstorm as many features as they can for each landscape.
- O Pupils go to the local library or museum to find examples of landscapes in art. They make a list of three artists and their work. If possible, they bring to class photocopies or postcards of ones they like particularly.

Weblinks

http://www.bbc.co.uk/scotland/education/sysm/landscapes

Interactive site where pupils can visit the different landscapes in Scotland.

http://www.ceja.educagri.fr/en/agriculture/a5/dia1.htm

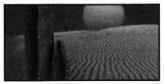
Images of agricultural landscapes.



22 Landscape Collage

1 Look and match.











a rainforest

b desert

c urban

d country

e coast

(2) Complete and tick.

My favourite place:













1 sea

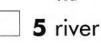


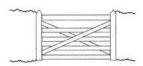


3 sand

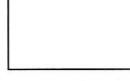


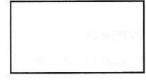
4 flowers











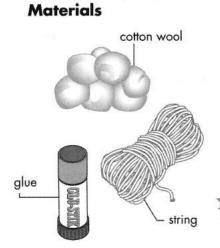
6 field

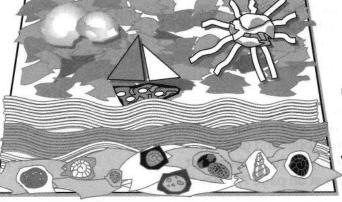


7 buildings 8 park



(3) Make a collage.









23 Natural Wonders of the World

Objectives

- find out about natural wonders of the world
- design an ink stamp
- answer general knowledge questions

Materials

- photocopies of pages 75 and 76, one of each per pupil
- up to 5 photocopies of the resource sheet (page 77), cut into fact cards
- scissors
- coloured pencils
- world map poster

Language

- canyon /'kænjən/, harbour /'harbə/, mountain /'mauntən/, reef /'ri:f/, volcano /vol'keɪnəu/, waterfall /'wo:tofo:l/; large numbers
- Where are (the Victoria Falls)? (The Victoria Falls) are in (Africa). How (high) is (the volcano)? It's (more than 300 metres) high. What can you find (on the Great Barrier Reef)?

Getting started

- 1 Write some simple large numbers on the board and ask pupils to say them, e.g. 100, 300, 1000, 1600, 8000.
- 2 Put up the world map poster on the board. Ask a pupil to indicate on the map where their country is. Ask other pupils to point to other familiar countries on the map.

Project

Look and match.

Give each pupil a photocopy of page 75. Pupils work in pairs, and match the words to the pictures.

Answers: 1 e 2 c 3 d 4 a 5 f 6 b

Ask pupils if any of these features near where they live or if they have seen them on holiday.

2 Read and find on the map.

In small groups, pupils read the information and match the places to the letters on the map. Check answers using the world map poster.

Answers: 1 a 2 d 3 b 4 c 5 e 6 f

3 Collect stamps.

Give each pupil a photocopy of page 76 and divide pupils into six groups. Assign each group a different natural wonder to find out about and give each member of the group a copy of the relevant fact card from the resource sheet on page 77. They find

out the answer to their general knowledge question. Check each group has answered the questions correctly.

Answers

1b 2b 3a 4a 5a 6b

Each group designs a simple ink stamp for their natural wonder. They draw the stamp in the appropriate place. Explain that pupils have to collect stamps for the five other natural wonders. They find a partner from another group and swap fact cards. They then ask each other their general knowledge questions. When both pupils have answered the questions correctly, they draw their stamp in each other's collection. They then find a partner from another group.

When more than half the pupils have completed their collections, stop the activity and give pupils time to compare.

Follow-up activities

- Pupils research other wonders of nature. Write the words Niagara, Angel, Etna, Sharm El Sheikh, Kilimanjaro, Copper on the board. Pupils find out if these places refer to waterfalls, volcanoes, reefs or canyons and where these places are. (The Angel Falls are in Venezuela; the Niagara Falls are in Canada; Mount Etna is a volcano in Italy; Sharm El sheikh is a famous reef in the Red Sea; Mount Kilimanjaro is a volcano in Africa; the Copper Canyon is in northern Mexico.)
- O Pupils go to the local tourist office or library and write a report on a natural wonder in their country or their area. Find out where it is and why it is important. Pupils can draw a picture, write a report or bring in information they have found.

Weblinks

http://thinkquest.org/library

Select: Geography & Travel and Wonders of the World for information on natural wonders.

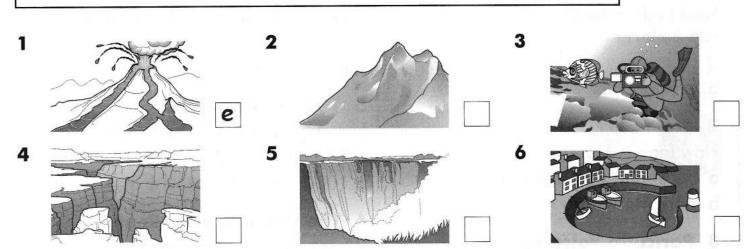
http://en.wikipedia.org/wiki/Seven_Wonders_of_the_ World

Information on different world wonder lists.

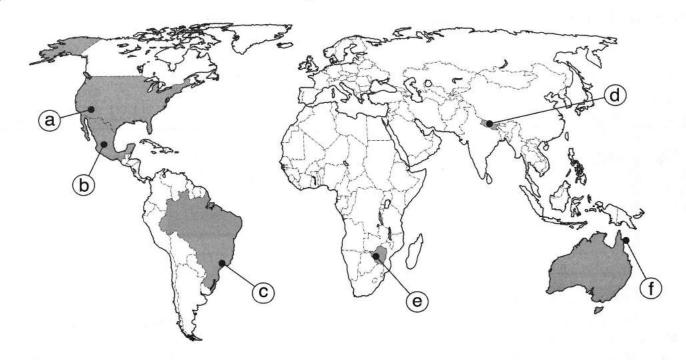


1) Look and match.

a canyon **b** harbour **c** mountain **d** reef **e** volcano **f** waterfall



(2) Read and find on the map.



- 1 The Grand Canyon is in Arizona in the United States. a
- 2 Mount Everest is in Nepal, on the border with Tibet.
- **3** The Paricutin Volcano is in Mexico.
- **4** The Rio de Janiero Harbour is in Brazil.
- **5** The Victoria Falls are in Africa.
- 6 The Great Barrier Reef is in Australia.

3) Collect stamps.



GENERAL KNOWLEDGE QUESTIONS

1 The Grand Canyon

How high is the Grand Canyon in some places?

- a 16 metres
- b 1600 metres

2 Mount Everest

How high is Mount Everest? a more than 800 metres high b more than 8000 metres high

3 Paricutin Volcano

How high is the Paricutin Volcano? a more than 400 metres high b more than 4000 metres high

4 Rio de Janiero Harbour

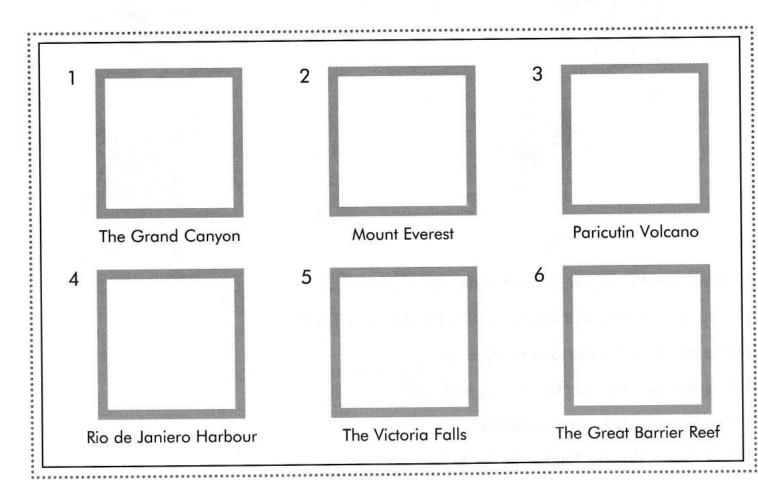
Where in Brazil is the Rio harbour? a on the east coast b on the west coast

5 The Victoria Falls

How high are the Victoria Falls? a 100 metres high b 1000 metres high

6 The Great Barrier Reef

What can you find on the Great **Barrier Reef?** a trees and birds b coral and fish



Resource sheet

Fact card 1: The Grand Canyon

The Grand Canyon is in northern Arizona, in the United States. The canyon is over 1600 metres high in



some places. A lot of people visit the Grand Canyon every year.

Fact card 2: Mount Everest

Mount Everest is in Nepal, on the border with Tibet, in the Himalayas. It is the highest mountain in the world (8,848 metres). It is very difficult to climb



to the top of Mount Everest.

Fact card 3: Paricutin Volcano

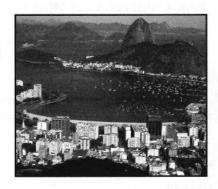
Paricutin Volcano is in Mexico. It is over 400 metres high. This volcano appeared in 1943.



Fact card 4: Rio de Janeiro Harbour

Rio de Janiero Harbour is on the east coast of Brazil. There are mountains in

the harbour area and there are a lot of beautiful beaches.



Fact card 5: The Victoria Falls

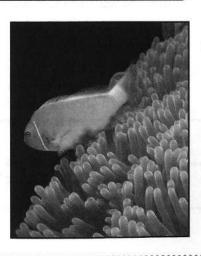
The Victoria Falls are in Africa on the border between Zimbabwe and Zambia.

These incredible waterfalls are 100 metres high and almost 2 kilometres wide.



Fact card 6: The Great Barrier Reef

The Great Barrier Reef is in northern Australia. It is over 2000 kilometres long. Coral and many colourful fish live on the reef.





Fire Festivals

Objectives

- find out about festivals around the world
- design an advert

Materials

- photocopies of page 79, one per pupil
- up to 4 photocopies of the resource sheet (page 80), cut into information cards taped to pencils to make flags
- coloured pencils
- paper for making posters
- world map poster
- optional: travel magazines, glue and scissors

Language

- have a parade /'hæv ə pər'eɪd/, light fireworks /'laɪt 'farawa:ks/, carry lanterns /'kærr 'læntanz/, make bonfires /'merk 'bonfaraz/
- The festival takes place in (India). It takes place in (January). They celebrate (the end of winter.)

Getting started

- 1 Write the words Christmas and December on the board. Elicit names of other special days and celebrations from pupils. Write some of the festivals on the board and see if pupils know when these celebrations take place.
- 2 Write the words bonfire and fireworks on the board. Ask pupils if any of the celebrations listed on the board include bonfires or fireworks. Explain that all over the world at different times of year there are festivals which include bonfires and fireworks.

Project

1 Look and match.

Give each pupil a photocopy of page 79. Pupils match the words to the illustrations.

Answers: 1b 2d 3c 4a

2 Read and answer.

Put up the world map on the board and ask a pupil to point to India on the map. Explain that they are going to read about a festival in India. Pupils look at the information on the poster and answer the questions.

Answers: a The festival takes place in India. b It takes place in January. c They sing and dance around bonfires.

Ask pupils if they have ever heard of the Lohri Festival or if they are familiar with any other festivals celebrated in India.

3 Design a poster.

Place the information flags from the resource sheet on page 80 around the classroom. In pairs pupils look at the information on the different festivals and choose one they are interested in. They answer the comprehension questions in activity 2 about this festival.

Ask pupils to design a poster to advertise the festival or another local festival. They can use the poster in activity 2 as a model or design their own. They should illustrate the poster with drawings or photos cut out of magazines. Suggest pupils show you a rough draft of their work before producing the final version.

In the following class, display the posters around the classroom. Pupils decide which poster is the most attractive.

Follow-up activities

- O In pairs, pupils write two comprehension questions based on their festival posters and challenge other pupils to answer them.
- O Pupils find more information on the fire festivals in reference books and/or websites. Encourage them to bring photos or information into class.

Weblinks

http://www.factmonster.com/ipka/A0909585.html Graded information on different festivals around the world.

http://www.lohrifestival.org Information on the Lohri festival.



Fire Festivals

(1) Look and match.





3





a parade

b bonfire

c lantern

d fireworks

2) Read and answer.



LOHRI (The Bonfire Festival)





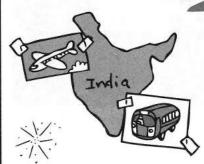


Bonfires and Fun! Don't miss it!





Sing and dance around the bonfires!



Cold this winter?

Come to India for the LOHRI FESTIVAL

Lohri takes place in January. Join us!



It's hot!



PART TRADE	Lohri	
1 Where does the festival take place?	in India	e al estadáleo
2 When does the festival take place?		Softil In-
3 What do they do?		in bounce, Letter 1

3 Design a poster.

Resource sheet

INFORMATION CARD: THE HOLI FESTIVAL

INFORMATION CARD: TENG CHIEH

This festival takes place in India at the end of March. People celebrate the end

of winter. They have bonfires and wear colourful clothes.



Teng Chieh is celebrated in China at Chinese New Year. People remember family members and light fireworks, carry

lanterns and have dragon parades.



INFORMATION CARD: BONFIRE NIGHT

INFORMATION CARD: OBON FESTIVAL

On the evening of November 5th people all over England celebrate Bonfire Night. This has been an English tradition since

1605. People make bonfires and light fireworks.



This festival takes place in Japan in July or August. People make bonfires and

carry lanterns to remember members of their family.



INFORMATION CARD: LAS FALLAS

INFORMATION CARD: BONFIRE FESTIVAL

Every March people in Valencia in Spain celebrate Las Fallas. The festival is to celebrate the life of Saint Joseph. They burn large 'statues' in bonfires, light fireworks and have parades.



On June 13th, June 24th and June 29th

people in Rio de Janiero in Brazil celebrate the beginning of summer with the Bonfire Festival. They light fireworks, have bonfires, dance and sing.

