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Cambridge Primary Stage 4

Activities to support you at home

Brighter Thinking

Better Learning

Photocopiable activity 5: Expressing time – in, at, on, last

1 Do you usually ... ?

- ... go to school ...
- ... stay up late ...



- _____ Friday?
- _____ Saturday?
- _____ Sunday?

2 Do you usually ... ?

- ... go hiking ...
- ... go swimming ...



- _____ the morning?
- _____ the afternoon?
- _____ the evening?

3 Do you usually ... ?

- ... study English ...
- ... feel tired ...



- _____ Tuesday?
- _____ Wednesday?
- _____ Thursday?

4 Do you usually ... ?

- ... meet your friends ...
- ... play basketball ...



- _____ night?
- _____ midday?
- _____ midnight?
- _____ weekends?

5 Do you usually ... ?

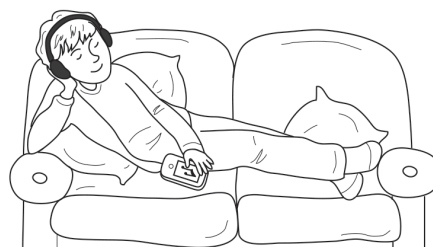
- ... get up ...
- ... visit your grandparents ...



- _____ 5.00 am?
- _____ 10.00 am?
- _____ 11.30 pm?

6 Do you usually ... ?

- ... watch TV ...
- ... listen to music ...



- _____ midnight?
- _____ midday?
- _____ weekends?

Photocopiable activity 6

Comparatives quiz cards

Aim: Learners use quiz cards to ask and answer questions using comparative adjectives. The activity should give the learners ideas and support for the writing activity on page 39 of the Learner's Book.

Preparation time: 5 minutes.

Language focus: Practice asking questions with comparative adjectives to compare features of landscape, climate and size.

Vocabulary: Comparative adjectives: *longer, shorter, higher, bigger, smaller, wider, older, drier, wetter, hotter*

Materials: One set of *Comparatives quiz cards*, cut up as indicated, per pair or small group of learners.

Procedure

- Tell the learners that they are going to receive a quiz in the form of 12 cards to do with their partners.
- Distribute one set of the *Comparatives quiz cards* to each pair of learners. If your class is lower ability, you could use only the first six cards. In a mixed class, pair lower- and higher-level learners together.

- To demonstrate the activity, ask learners the question from **Card 1**: *Which is older – Rome or London?* Cover up the answer.
- Nominate learners and ask their opinions before telling them to look for **Card 1** and find the answer.
- Explain that they are going to continue asking and answering questions like this one with their partner.
- Allow time to continue the activity in pairs, while you circulate, giving assistance to lower-level learners.
- Higher-level learners could make some more cards of their own and continue the activity. They could use their knowledge from other subjects, or they could research facts for the quiz for homework.

Wrap up

- Give higher-level learners an extra challenge by having a competition to remember the most facts within a set time. Lower-level learners will benefit from hearing repetition of the target structure.

Photocopiable activity 6: Comparatives quiz cards

<p>1</p> <p>Which is older ...</p> <p>... Rome or London?</p> <p>Answer: Rome</p>	<p>2</p> <p>Which is higher ...</p> <p>... Mount Everest or Mount Snowdon?</p> <p>Answer: Mount Everest</p>	<p>3</p> <p>Which is wider ...</p> <p>... the River Nile or the River Amazon?</p> <p>Answer: River Amazon</p>
<p>4</p> <p>Which is bigger ...</p> <p>... London or Sydney?</p> <p>Answer: London</p>	<p>5</p> <p>Which is bigger ...</p> <p>... France or Germany?</p> <p>Answer: France</p>	<p>6</p> <p>Which is drier ...</p> <p>... the Sahara Desert or London?</p> <p>Answer: Sahara Desert</p>
<p>7</p> <p>Which is smaller ...</p> <p>... New York or Edinburgh?</p> <p>Answer: Edinburgh</p>	<p>8</p> <p>Which is smaller ...</p> <p>... New Zealand or Australia?</p> <p>Answer: New Zealand</p>	<p>9</p> <p>Which is hotter ...</p> <p>... Glasgow or Bangkok?</p> <p>Answer: Bangkok</p>
<p>10</p> <p>Which is smaller ...</p> <p>... South America or Asia?</p> <p>Answer: South America</p>	<p>11</p> <p>Which is longer ...</p> <p>... the Rio Grande or the River Thames?</p> <p>Answer: Rio Grande</p>	<p>12</p> <p>Which is wetter ...</p> <p>... Cherrapunji (India) or Taipei (Taiwan)?</p> <p>Answer: Cherrapunji</p>

Photocopiable activity 10

Matching halves of sentences: zero conditional

Aim: Learners play a card game in which they match sentence halves.

Preparation time: 10 minutes.

Language focus: Using the zero conditional: *If/When* + present simple + present simple for things that are always true.

Vocabulary: Methods of transport and road safety

Materials: For each pair of students, one copy of the **Matching halves of sentences: Zero conditional** cards, cut up as indicated.

Procedure


- Focus on two examples of the target structure from the unit, for example:
When I ride my bike, I always wear a helmet.
If I can't find a pedestrian crossing, I find a quiet place to cross the road.
- Write another *if* and another *when* clause, on the board. Ask learners for suggestions for the second half of the sentence. Ensure learners know the *if* and *when* clause could come after the 'second half'.

- Distribute one copy of the **Matching halves of sentences: Zero conditional cards**, cut up as indicated, to each pair of learners.
- Explain the game by choosing a pair of learners to demonstrate. Each takes seven cards. Put the rest of the cards face down in a pile for learners to pick up from. The first learner puts down a card at random, for example: *If I cross the road,*. The second looks for a card which could logically follow, for example: *I look for a quiet place with no traffic, I don't cross at corners* or *I'm always careful*. For each card, there are at least two possibilities, but if the player can't go, he/she picks up a card from the pile. After each turn, learners pick up a card from the pile. The winner is the first to put down all their cards.
- Read out some sentences that would be 'wrong', and check learners know why.
- Allow learners time to play the game in pairs while you circulate and check they are playing correctly and answer any queries.

Wrap up

- Learners tell the class about what they do to stay safe on the roads.

Photocopiable activity 10: Matching halves of sentences – zero conditional



When I cross the road, I'm always careful.	If I cross the road, I don't cross at corners.	If I can't find a pedestrian crossing, I look for a quiet place with no traffic.	If I walk alone, I look carefully before I cross the main road.	When I walk alone, I don't talk to strangers.
If my older brother isn't with me, I stay on the main road.	When my older brother isn't with me, I don't cross the main road.	If I ride my bike, I always wear a helmet.	When I ride my bike, I use the cycle track.	When I travel by car, I always wear a seatbelt.
If I travel by plane, I always sit near the window.	When it gets dark, I wear reflective armbands.	If I walk at night, it's difficult for drivers to see me.	When I take my seatbelt off, my mother stops the car.	If I take my seatbelt off, my father makes me put it on again.

Photocopiable activity 12

Shopping dialogues

Aim: Practice of shopping dialogues.

Preparation time: 5 minutes.

Completion time: 20–30 minutes.

Language focus: Shopping expressions: *Would you like ... ? I'll have ... Can I have ... ?*

Vocabulary: quantity expressions: *any, a bottle, a can, a carton, a cup, a few, a little, a loaf, many, much, a packet, a slice (new!), some, a tub*

Materials:

One copy of the *Shopping dialogues* handout per learner.

Note: In the UK, the word *crisps* usually refers to thinly-sliced flavoured potatoes sold in packets and eaten cold. In other parts of the world, these are known as *chips*. In the UK, the word *chips* (from *chipped potatoes*) usually refers to long, thin pieces of potato eaten hot, often with salt and vinegar and sometimes tomato ketchup.

Suggestion for lower-/higher-level learners

The handout has been designed to give opportunities for revision. It provides the chance to give lower-level learners necessary support and practice to reinforce the language of **Unit 6 Lesson 3**. See **Procedure** for suggestions for higher-level learners.

Procedure

- Distribute one copy of the *Shopping dialogues* handout to each learner.
- Skim through the dialogues as a class and identify where they take place.
- With lower-level learners, look at the dialogues together and discuss the possibilities for the gap fill activity, before drilling pronunciation and allowing time for learners to practise the dialogues in pairs.
- In a higher-level class, learners read dialogues directly with correct quantity expressions before using the handout as a basis for creating their own dialogues.

Wrap up

- Learners perform their dialogues for the class.

Photocopiable activity 12: Shopping dialogues

1 Match the dialogue with a place.

Choose from: *In a grocer's shop, or In a sandwich bar.*



2 Complete each dialogue with the quantity expressions below.

1

any	can	many	packet	some
-----	-----	------	--------	------

Customer: Can I have a _____ of crisps, please?
 Assistant: Here you are. Is that everything?
 Customer: No, I'd like a _____ of cola. Have you got _____ sandwiches?
 Assistant: Yes, but there aren't _____ left – only cheese.
 Customer: I'll have _____ cheese ones then please.

2

any	any	bottle	little	slice	much
-----	-----	--------	--------	-------	------

Assistant: Yes, please?
 Customer: A _____ of mushroom pizza please.
 Assistant: Here you are, _____ thing else?
 Customer: Yes, a small _____ of water please. Have you got _____ chocolate ice cream?
 Assistant: Yes, but only a _____.
 Customer: Sorry?
 Assistant: Yes, but there isn't _____ left.

3

any	carton	few	loaf	much	some
-----	--------	-----	------	------	------

Customer: _____ orange juice please.
 Assistant: How _____ would you like?
 Customer: One _____ please. Could I have a _____ of white bread?
 Assistant: Here you are, _____ thing else?
 Customer: Yes, could I have _____ apples please?
 Assistant: Yes, is four OK?
 Customer: Yes, thank you.

4

any	little	much	some	tub
-----	--------	------	------	-----

Customer: A _____ of ice cream please.
 Assistant: What kind?
 Customer: Coffee please.
 Assistant: Sorry, there isn't _____ left.
 Customer: OK, strawberry then, please. Can I also have _____ cheese?
 Assistant: Yes, is that much OK?
 Customer: That isn't very _____. A _____ more please.

Photocopiable activity 15

Let's invent a new dance!

Aim: Learners create their own new dance using the vocabulary from Unit 8 Lesson 2.

Preparation time: 5 minutes.

Completion time: 20–30 minutes.

Language focus: verbs of movement.

Vocabulary: Speaking about traditional dances

Materials: One *Let's invent a new dance!* handout for each pair of learners.

Procedure

- Revise the verbs of movement. Ask learners what they can do with their arms, hands, legs, knees, feet – for example: *bend, lift, clap, point, stamp, swirl*. Try to demonstrate this.
- Ask learners the five questions from the main activity about the dances they like doing.
- Tell learners they are going to invent a new dance and distribute a handout to each pair of learners.

- Learners write the answer to the first question on the handout. Encourage them to be as creative and funny as possible.
- Learners fold back the section of the page so it can't be read, before passing the handout on to the next pair to fill in question 2 and so on to question 5.
- Unfold the handouts and ask learners to read them to the class.

Wrap up

- Choose some interesting dances and try and perform them.

Photocopiable activity 15: Let's invent a new dance!

Create a new dance by answering the question, folding back the page along the dotted line and passing it along to a friend.

When is the dance performed?

What do the dancers do with their arms and hands?

What do the dancers do with their legs (including knees)?

Do the dancers sing or shout?

What do the male dancers wear?

What do the female dancers wear?

Photocopiable activity 17

Design an advert for a summer camp

Aim: Learners design a web advert for a summer holiday activity.

Preparation time: 5 minutes.

Vocabulary: *plastic utensils, a backpack, a torch, jeans, tracksuit, shorts, cooking equipment, a journal, a tent, a waterproof jacket, an MP3 player, a sleeping bag, riding, rafting, canoeing, camping, climbing, trekking, windsurfing, sitting by a camp fire, mountains, lakes, the seaside*

Materials: For each group of about four learners: one *Design an advert for a summer camp* handout. Bring some brochures and adverts for children's activity camps to the class. If you have Internet access, it would be useful to show websites. Many have promotional videos showing children participating in exciting activities. If learners have their own brochures or even photos of them participating in activities, they could bring these along and use the pictures for their adverts.

Procedure

- Generate interest in the activity and give learners ideas for their adverts by showing brochures, pictures and/or promotional videos of young people having fun participating in activities at summer camps. If you have a magazine advert to show the class, it will give an idea of what is expected later.

- Build up lists of useful vocabulary on the board by asking learners questions about what they see. Talk about the kind of places that could host the activity camps and what the landscape is like. Ask learners who they can see at the activity camps – their age, nationality, etc. Make a list of the activities they see, what kind of equipment they can see and other equipment people would need to take.
- Ask learners about the kinds of places where the children could sleep: *tents, dormitories*, etc.
- To each group of about four learners, distribute one *Design an advert for a summer camp* handout. Tell groups they are going to invent their own activity camp and write a magazine advert for it.
- Allow time for learners to discuss and make notes under the headings. This activity is designed to help them plan their activity camp and advert.
- Distribute one A3 sheet to each group to write up their advert. Circulate and offer support to learners while they convert their notes into their adverts. Make sure learners leave room for drawings or pictures of children participating in the activities.

Wrap up

- Learners present their adverts to the class.
- Higher-level learners use their advert for the basis of a radio or TV advert for the activity camp and perform it to the class.

Photocopiable activity 17: Design an advert for a summer camp**How to plan your advert**

- a Answer the questions to help you plan your summer camp.
 b Look for pictures of children participating in the activities. If you don't have any pictures, draw your own!
 c Use the information to help you make an advert for your summer camp on the piece of paper that your teacher gives you.

1 Where is your summer activity camp? What's the landscape like?

2 How can you get to the summer camp?

3 Who is the summer activity camp for?

4 What do the participants need to bring? What equipment is provided at the camp?

5 What activities are there at the camp? Make a timetable.

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
am	am	am	am	am	am
pm	pm	pm	pm	pm	pm

6 Where do participants stay?

7 Where can people who are interested get more information? _____

Photocopiable activity 18

Planning and writing a story about a summer holiday

Aim: Learners plan and write a story.

Preparation time: 5 minutes.

Language focus: The past simple tense, in particular the irregular forms *did, got there, went, going to* for intentions.

Vocabulary: holidays

Materials: For each learner, one *Planning and writing a story about a summer holiday* handout.

Procedure

- Ask learners where they went for their last summer holiday and build up a list on the board.
 - Ask more questions like: *Who did you go with? How long did you stay? What did you do? Are you going again this year?*
 - Distribute one copy of the handout to each learner.
- Tell learners they are going to write a short story on a separate sheet and ask them to read the sentences and choose one to begin their story. They also decide if the story is about themselves or a friend.
 - Focus on the questions and tell learners to make notes. If your class is working at a very low level, give feedback and extra help and support after each question.
 - Circulate and offer support while learners write their short stories and draw a picture.

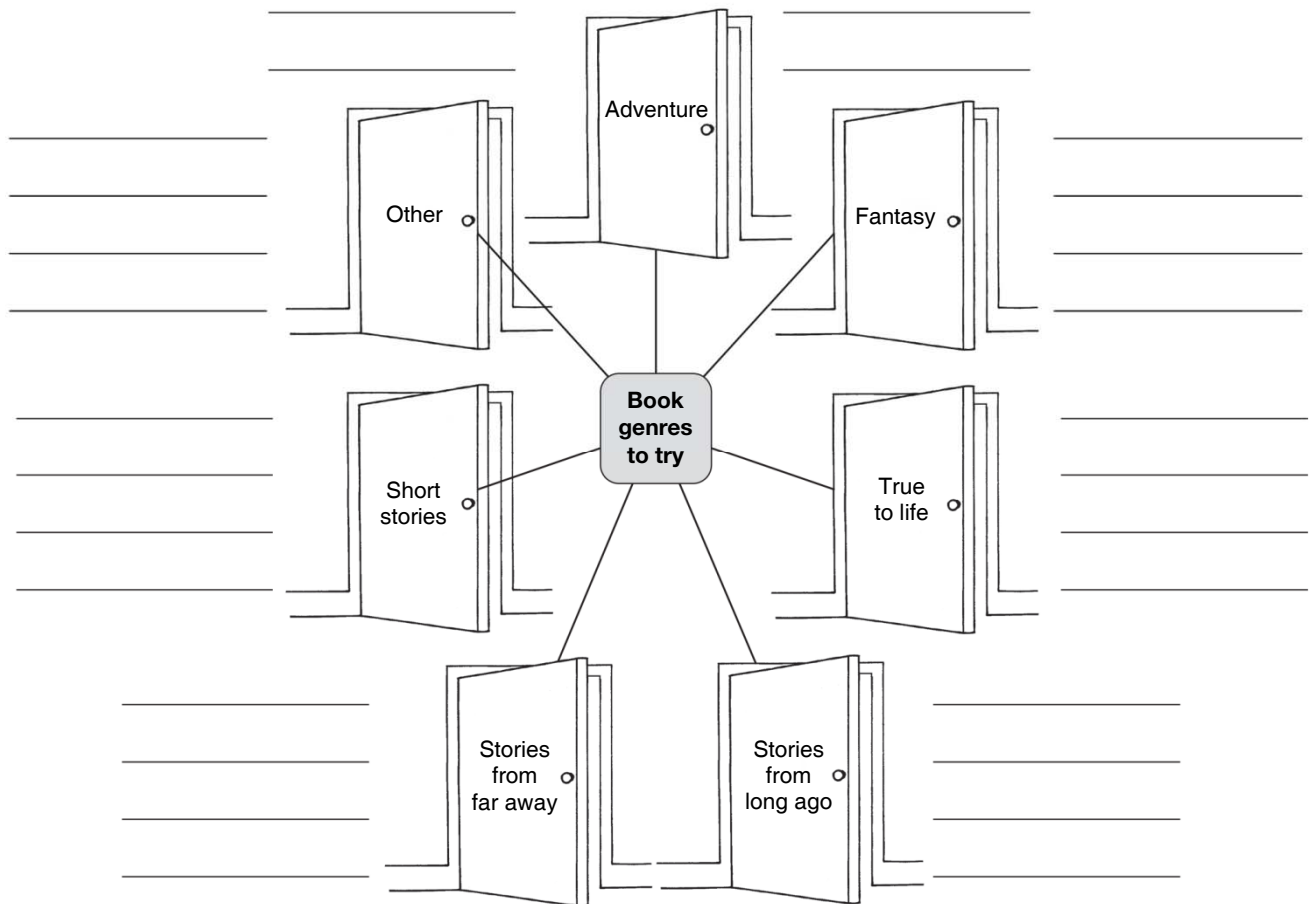
Wrap up

- Mix the stories up and read them out. Learners guess who wrote which story.
- Higher-level learners could give a PowerPoint presentation using photos about their story.

PCM 1 Extend your reading

Name: _____ Date: _____

Fill in a title, author and date for each genre you manage to read.



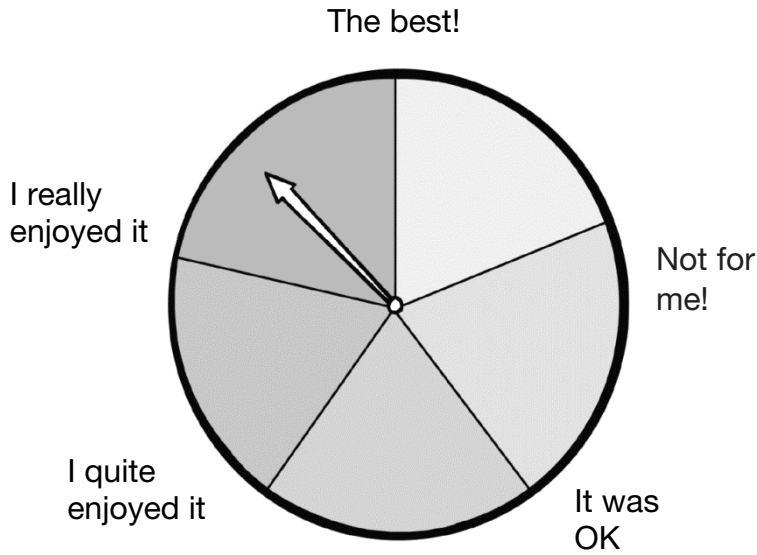
I challenge you to go where you have never gone before! Open new doors, and become a story seeker.



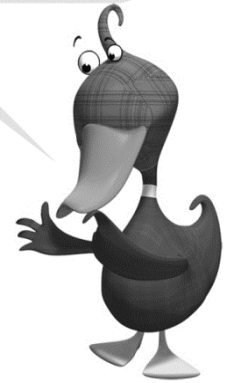
PCM 2 Reading log

Name: _____ Date: _____

Record everything you read!



Invent your own rating symbols. Draw your symbols on the dial and add them to your log.



Date	Title	Author	Genre <i>What is it?</i>	Comment <i>Did you enjoy it? Would you like to read more by the same author?</i>

PCM 3 Book review

Name: _____ Date: _____

Each time you start a new book, start your review at the same time. As you read the book, fill in the review.

Tell us about your book – should we read it too?



Title: _____ Author: _____

Genre: _____

Characters: _____ Setting: _____



Story summary: _____

My opinion:

I enjoyed/didn't enjoy it because...

Rating:



Reviewer: _____ Date: _____

PCM 7 How to read a poem

Name: _____ Date: _____

To help you to understand and enjoy poetry, use this 'Poem tool'.

Read through your poem a couple of times and then answer as many questions as you can. It will help you notice more and appreciate more!

Title	
Who wrote it?	
What do you think it's about?	
What do you enjoy about it?	
Is there anything you don't understand in the poem?	
Is there anything unusual or interesting about the poem?	
Are any characters mentioned or suggested in the poem?	
Is the poem written in a particular shape or form?	
Is there a reason for this shape or form?	
Can you find any examples of figurative language?	
What types are they?	
Which images do you like?	
Are there any rhymes?	
Is there a pattern to the rhymes?	
Can you hear any other sound effects?	
How does the poet use punctuation?	
What other things did you notice?	

PCM 21 Plan a brochure

Name: _____ Date: _____

Use the following layout to plan and do your research.

My topic: _____

Make up a heading for your brochure:

First heading:

Key words:

Design a cover for your brochure using a suitable picture or diagram:

Second heading:

Key words:

Third heading:

Key words:

PCM 23 Planning a news article

Name: _____ Date: _____

To help you plan your news article, answer any of the following questions about your story. Add some of your own questions to the ones provided.

Once you have the details sorted, you can go ahead and write a first draft.

First paragraph

Who? (Who is the main subject of the article? Who else is involved?)

What? (What is the article about? What is the main story? What event happened?)

Where? (Where did this event take place? Where did it happen? Where was everyone when it happened?)

When? (When did the event take place? When did the news break? When did you find what you were looking for? When did the event end?)

Second and third paragraphs

How and why? (What other details do you know about the event or the people involved?) Use key words only.

First draft:

Use this space to put all your ideas down as a first draft.

Headline:

What will your headline be? Make it interesting and attention-grabbing!

PCM 25 Record sounds

Name: _____ Date: _____

- 1 Sit comfortably with your paper and pen handy.
- 2 Close your eyes.
- 3 Listen to the 'silence'.
- 4 Make a list of all the sounds you can hear – things close by and things far away.
- 5 Do this in four different places, for example in the classroom, your bedroom, waiting for your transport, in a park.
- 6 When you have completed this form, share and discuss what you heard with your class.

1. My location: _____	2. My location: _____
3. My location: _____	4. My location: _____

PCM 30 Character profile planner

Name: _____ Date: _____

Appearance:	Actions:
Talents:	Feelings/thoughts:
Character traits:	How they show this:

Character word bank

adventurous afraid artistic bold bossy brainy brave bright
 brilliant calm careful careless charming cheerful childish
 cowardly curious daring dynamic energetic enigmatic fearless
 friendly funny gentle giving gloomy greedy happy
 helpful honest hopeful imaginative impatient intrepid inventive
 intelligent jealous kind lazy lonely loving loyal lucky
 mean mysterious nervous noisy nosy obedient polite poor
 proud quiet responsible rough rowdy rude sad scared
 secretive selfish serious sharp shy silly sly smart
 sneaky spoiled strange sunny sweet talented thoughtful
 thoughtless trusting trustworthy unfriendly wicked wily wise

PCM 33 Design an advertisement

Name: _____ Date: _____

Activity: *Design an advertisement*

1 My planning:

The event that I am going to advertise is: _____

The features from the 'attention-grabbers' checklist I will use:

-
-
-
-

2 My success criteria:

I'm going to keep these things in mind when I do my advertisement:

- It must promote an event – the message must be clear.
- It must be eye-catching – it must look good.
- It must be persuasive – it must sound good.
- It must include important details and/or instructions about the event.
- It must be well edited – there should be no errors.

3 My editing:

a The words I've used to make it sound appealing:

b The words I changed, corrected or improved:

4 My feedback:

Did I get helpful feedback from a talk partner? 😊 😞 Name: _____

What did they say?

5 My reflection:

a What did I do well?

b What can I improve?

PCM 34 Write a persuasive speech

Name: _____ Date: _____

Activity: *Write and present a persuasive speech*

1 My planning:

a The topic I have chosen is: _____ .

b Three main points I would like to make about my topic:

-
-
-

c The words I'm going to use to sound persuasive are:

2 My success criteria:

a I must remember the following things when I write my speech:

- My speech has a good introduction and conclusion.
- In the middle, I express three convincing reasons for my point of view.
- I've included some facts and some opinions.
- I've used persuasive language.

b I must remember the following things when I say my speech:

- Be well prepared so that I can speak without being nervous.
- Keep eye contact with the audience (no reading!).
- Speak clearly with expression.
- Be enthusiastic and convincing.

3 My feedback and reflection:

a Was my audience persuaded by my speech? What did they say about it?

b What did I do well?

c What can I improve for next time?

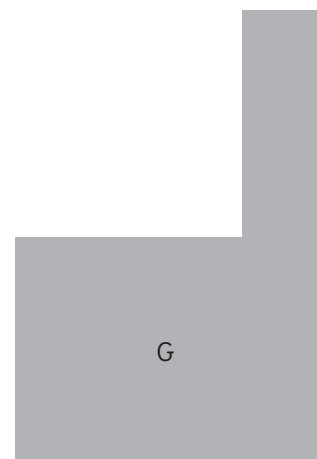
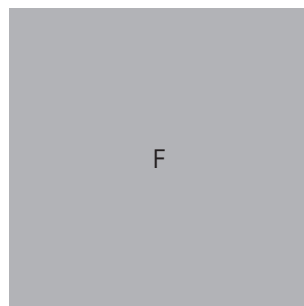
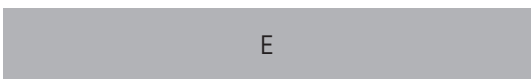
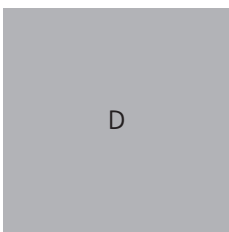
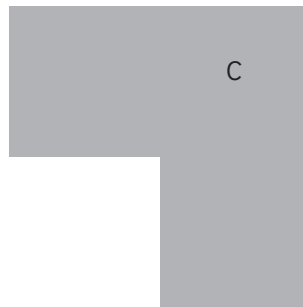
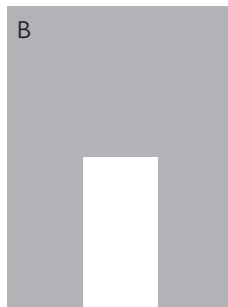
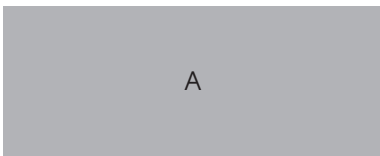
What is the area?

Measure the area of these shapes.

Cut them out and put them on a squared paper grid, then draw around them.

Or if you have a see-through plastic grid, you could lay the grid over the shapes.

If more than half of a square on the grid is inside the area to be measured, it can be counted in the area. If there is less than a square do not count it. If there is half a square, count it as half.



Answers to *What is the area?*

A = 10 squares

B = 10 squares

C = 12 squares

D = 9 squares

E = 7 squares

F = 16 squares

G = 15 squares Exploring area (2) Squares of side 5 cm

Multiplication square

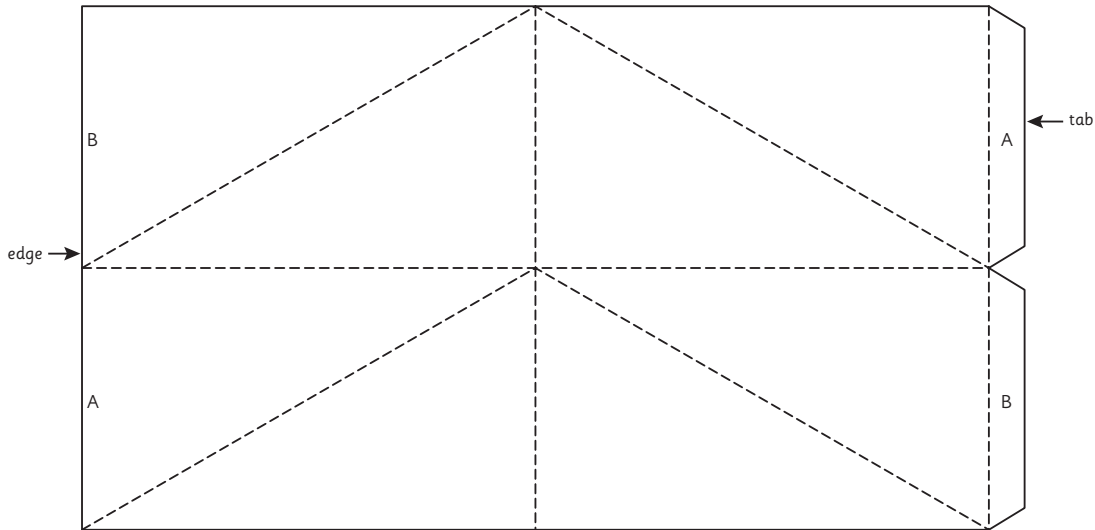
X	1	2	3	4	5	6	7	8	9	10
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										

Making a tetrahedron

Instructions

1. Decorate the net.

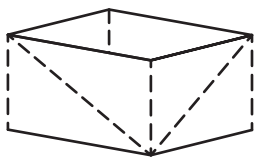
Then cut along the solid lines and fold along the dashed lines.



2. Glue 'tab' A to 'edge' A and 'tab' B to 'edge' B.

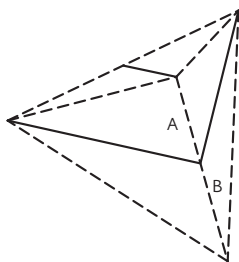
3. Fold flat along the dashed line that goes from the 'tabs' to the 'edges', to make a two-sided strip.

5. Open out to make a hollow square.

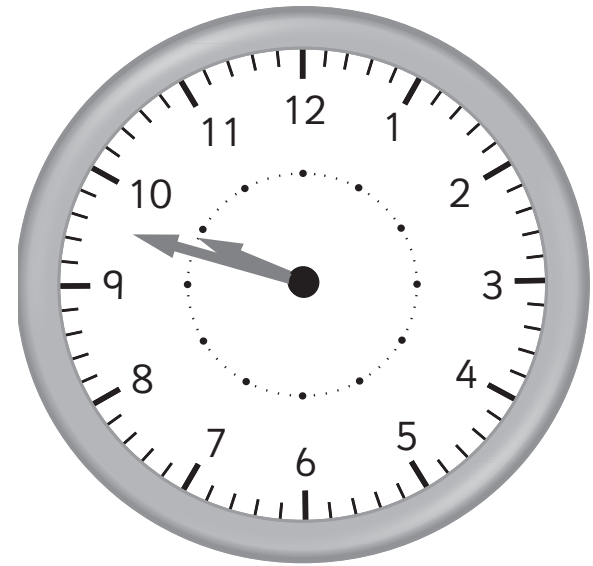
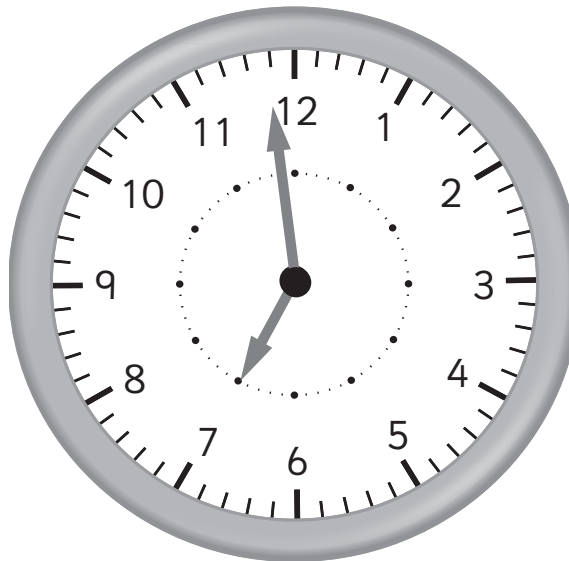
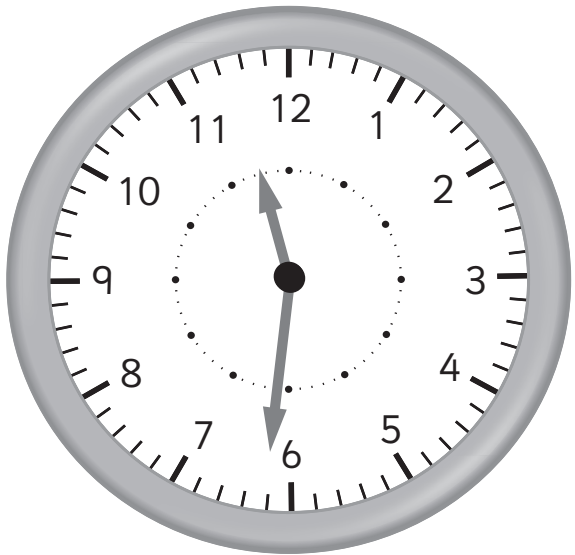
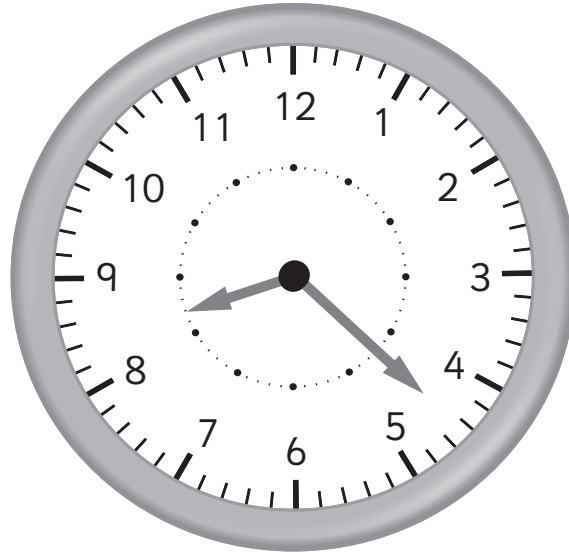
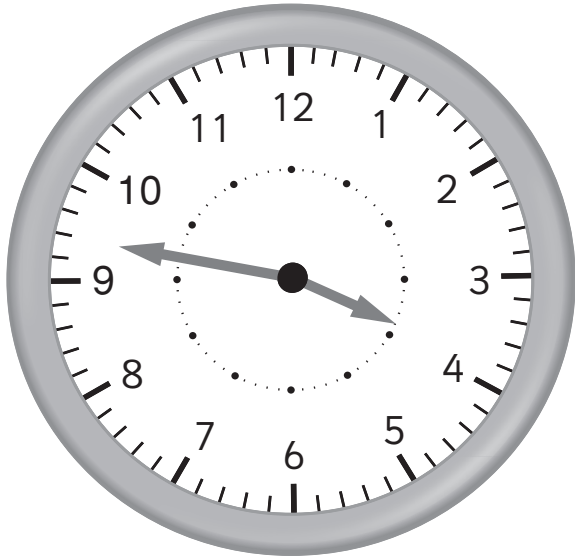


6. Fold gently to form a tetrahedron.

Edge A and edge B come together to make one side.




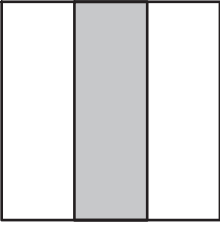
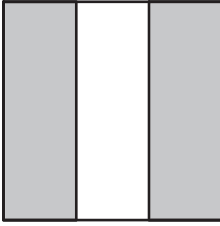
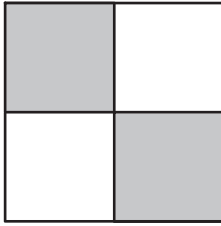
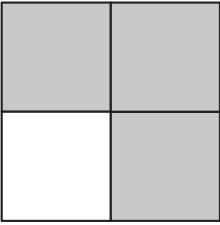

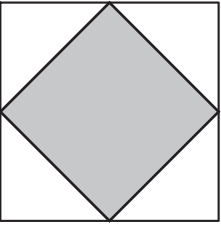
Telling the time (2)



Fraction snap

Prepare two sets of these cards, so there are 30 cards in total.


The value of a shape card is the **Shaded** fraction.

 $\frac{1}{2}$	$\frac{2}{4}$	$\frac{1}{3}$
$\frac{2}{3}$	$\frac{3}{4}$	1
$\frac{3}{3}$	$\frac{2}{2}$	$\frac{4}{4}$
		
		


Domino loop cards

0.5 0.6	0.75 $\frac{1}{2}$	$\frac{1}{10}$ zero point three
seven tenths $\frac{1}{4}$	$\frac{1}{5}$ $\frac{10}{100}$	$\frac{1}{3}$ 0.8
0.3 $\frac{3}{4}$	six tenths 0.9	$\frac{9}{10}$ $\frac{7}{10}$
$\frac{4}{5}$ 0.2	0.25 zero point four	$\frac{40}{100}$ one third

Pairs



$\frac{1}{2}$ of 20	$\frac{1}{5}$ of 15	$\frac{1}{4}$ of 40	$\frac{1}{3}$ of 9
$\frac{1}{4}$ of 28	$\frac{1}{2}$ of 16	$\frac{1}{3}$ of 27	$\frac{1}{10}$ of 30
$\frac{1}{10}$ of 20	$\frac{1}{8}$ of 16	$\frac{1}{2}$ of 10	$\frac{1}{5}$ of 25
$\frac{1}{3}$ of 15	$\frac{1}{4}$ of 20	$\frac{1}{8}$ of 24	$\frac{1}{2}$ of 18
$\frac{1}{10}$ of 80	$\frac{1}{5}$ of 40	$\frac{1}{4}$ of 32	$\frac{1}{3}$ of 18



Place value chart to 2 decimal places

Th	1000	2000	3000	4000	5000	6000	7000	8000	9000
H	100	200	300	400	500	600	700	800	900
Th	10	20	30	40	50	60	70	80	90
U	1	2	3	4	5	6	7	8	9
tenths	0.1	0.2	0.3	0.4	0.5	0.6	0.7	0.8	0.9
hundreths	0.01	0.02	0.03	0.04	0.05	0.06	0.07	0.08	0.09

Worksheet 1.2

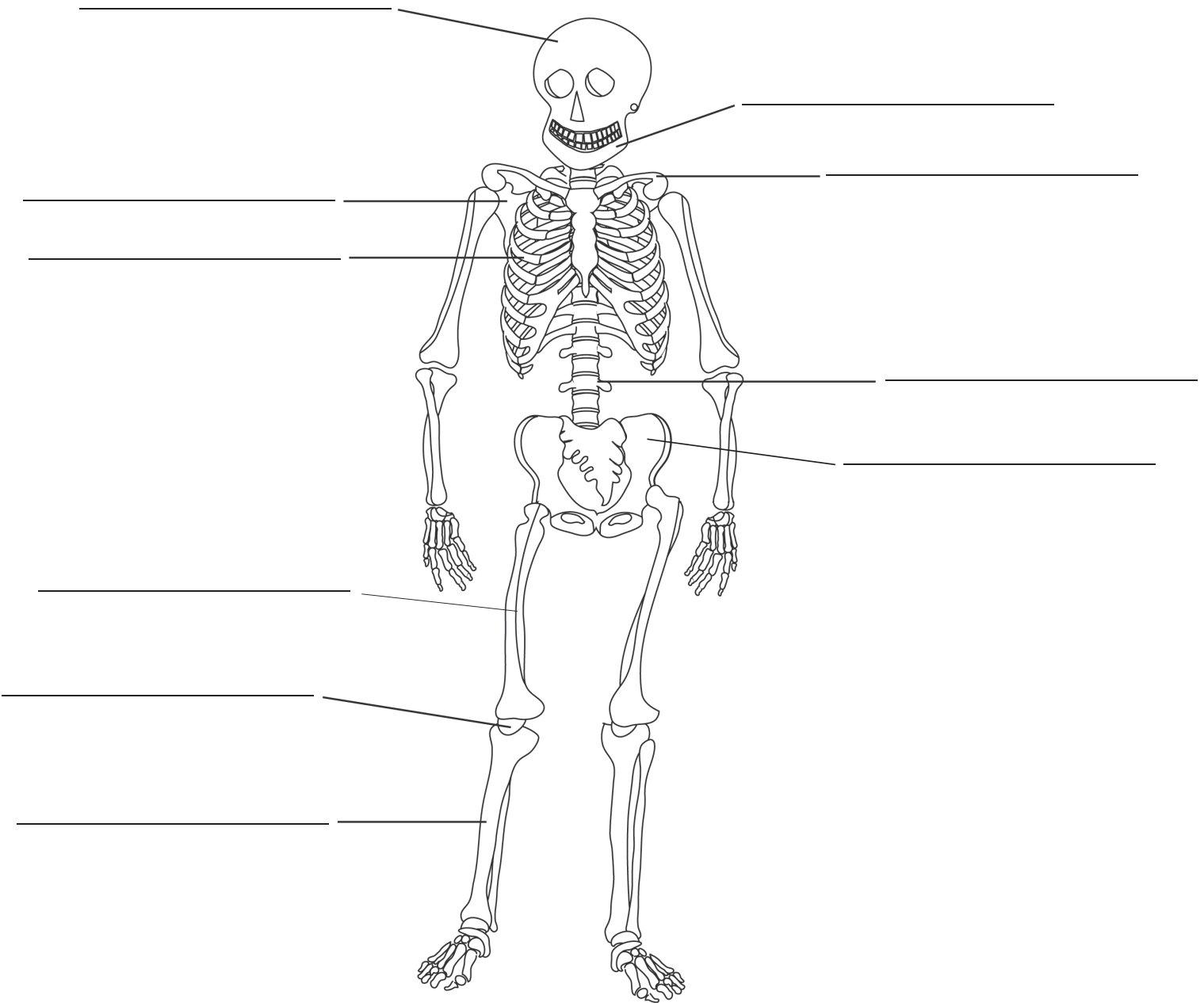
Label a skeleton

Name: _____

Date: _____

Use the names of the bones in the word box to label the different parts of the human skeleton.

jaw bone	hip	shoulder blade	collar bone	shin bone
skull	thigh bone	rib	vertebra	knee cap



Worksheet 1.3a

Measuring bones

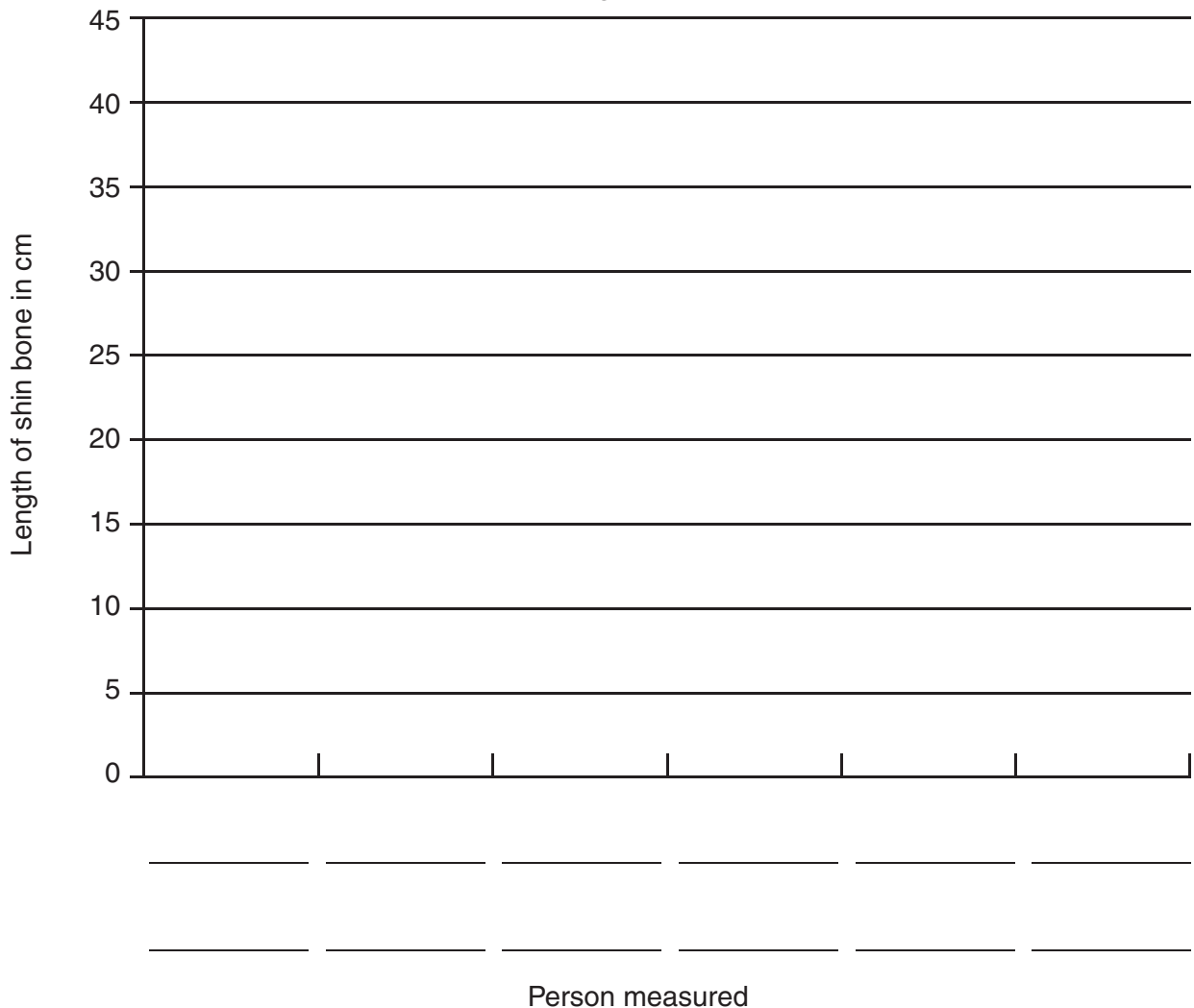
Name: _____

Date: _____

Record your bone measurements in this table.

Bone	Length in cm	
	Me	Teacher
upper arm bone		
thigh bone		
shin bone		

Use this grid to draw a bar chart to show your results. Draw a bar for each bone that you measured. Label each bar with the person (me or teacher) and the bone (upper arm, thigh, shin).



Worksheet 1.3b

Draw a bar chart of bone size

Name: _____

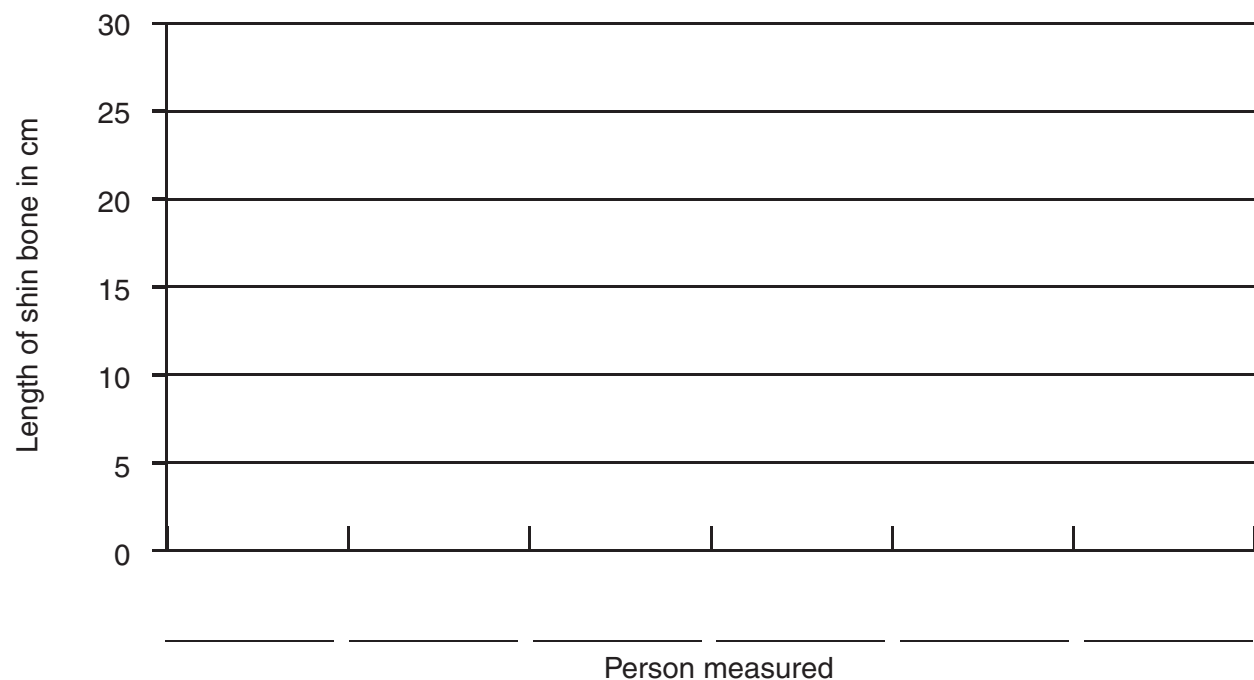
Date: _____

Virat measured the lengths of the shin bones of some people in his class.

These are his results.

Girls	Length of bone in cm	Boys	Length of bone in cm
Mira	24	Nikhil	29
Naima	25	Sanjeev	27
Gita	22	Dinesh	30

1 Draw a bar chart of Virat's results.



2 a Whose shin bone was longest? _____

b Whose shin bone was shortest? _____

c What pattern can you see in the results that Virat obtained? Suggest a reason for the pattern. _____

Worksheet 1.4

Make a model of arm muscles

Name: _____

Date: _____

In this activity, you will make a model to show how the muscles of the arms work in pairs.

Cut two lengths of card, each about 20 cm long.

Make a hole about 5 cm away from one end of each piece of card with the point of the scissors. Place a piece of sticky tack or Plasticine® behind the card to push the scissors into.

Put the card pieces on top of each other with the holes lined up. Push the paper fastener through holes to join the two pieces of card. This is your arm.

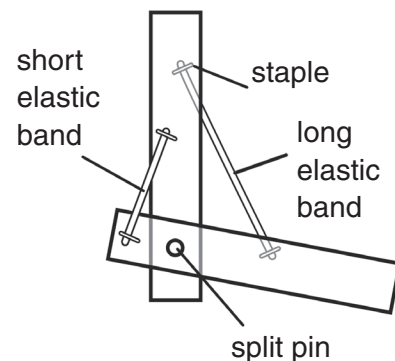
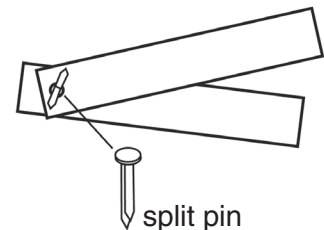
Staple the longer elastic band to the inside of the upper and lower 'bones' of the card arm.

Staple the shorter elastic band to the outside of the upper and lower 'bones' of the card arm. The elastic bands should be tight but not pulling.

You will need:

- a piece of thick card
- two elastic bands (one longer than the other)
- scissors
- a paper fastener (split pin)
- a ruler
- a stapler and staples
- a piece of sticky tack or Plasticine®.

card lengths



1 What happens to the card arm when you pull on the longer elastic band?

2 What happens to the card arm when you pull on the shorter elastic band?

3 Explain how the two elastic bands act like the muscles in the body that lift and lower the arm.

4 Which body muscles do the elastic bands represent?

Worksheet 1.5

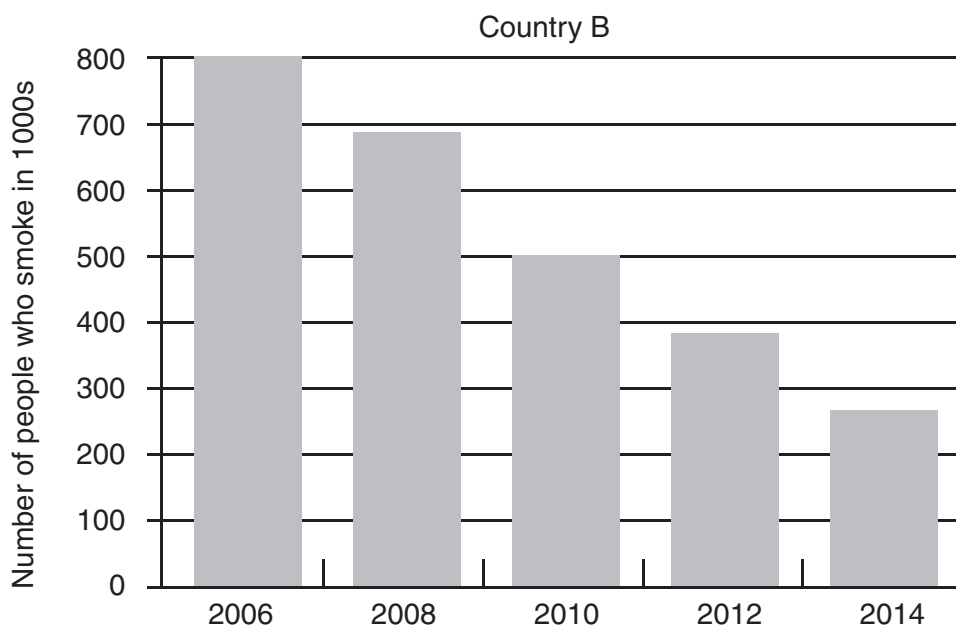
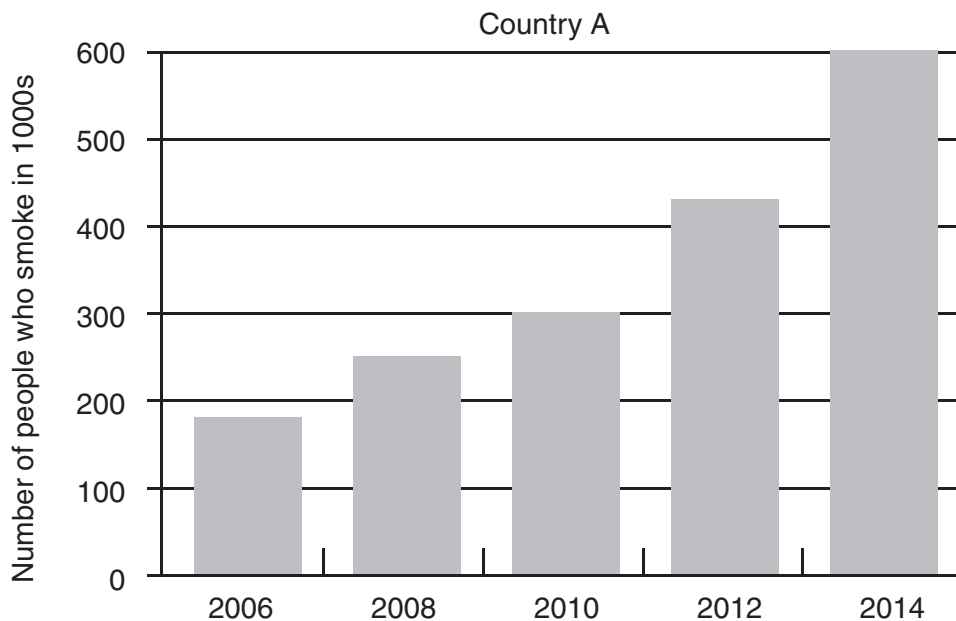
Analyse data on smoking

Name: _____

Date: _____

In this activity, you will find information from bar charts and identify trends.

Smoking cigarettes can cause health problems. Many countries are trying to get people to stop smoking. The bar charts show information about how many people smoke in country A and country B.



1 a In which country did more people smoke in 2006?

b How many people in that country smoked then?

2 a In which country did more people smoke in 2014?

b How many people in that country smoked then?

3 What pattern can you see in the bar charts?

4 Suggest **two** ways in which the government of a country can help fewer people to smoke.

5 a Name the drug found in cigarettes. _____

b Explain how this drug can harm people.

Worksheet 2.1b

The habitats of birds

Name: _____

Date: _____

Cut out the pictures of birds and stick them above the correct description.

1 This bird cannot fly but is an excellent swimmer. It feeds on fish in the sea. When it is on land or on snow and ice, this bird walks slowly and lives in large groups called rookeries.

2 This large, powerful bird nests in tall trees or on high cliffs. It feeds on small animals, which it finds by flying many miles across hills and mountains.

3 This large bird lives in or beside shallow lakes. It lives in large flocks spending many hours walking in the water and using its large hook-shaped bill to sieve food from the water.

4 This large bird lives on and beside rivers. Its long neck allows it to feed on weeds growing on the bed of the river.



Worksheet 2.3

Soil habitat for earthworms

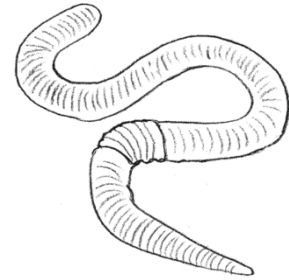
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Date: _____

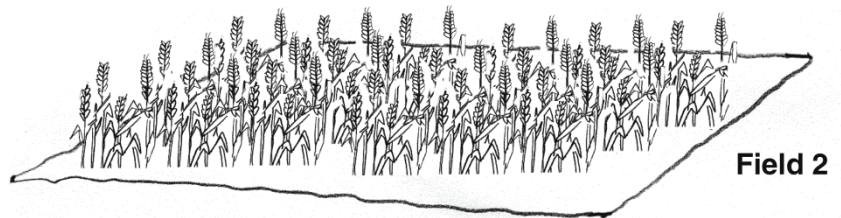
Earthworms like damp soil with a lot of decaying plant material, which they eat along with soil.

A class of learners dig in three fields looking for earthworms.

Answer the questions about the earthworms.



The learners found two earthworms.



The learners found 11 earthworms.



The learners found no earthworms.

1 Can you say why Field 2 had more earthworms?

2 Why did Field 3 have no earthworms?

Worksheet 2.4

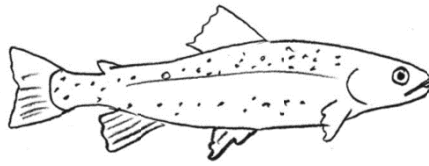
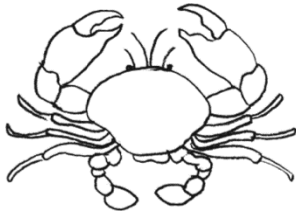
Make an identification key

Name: _____

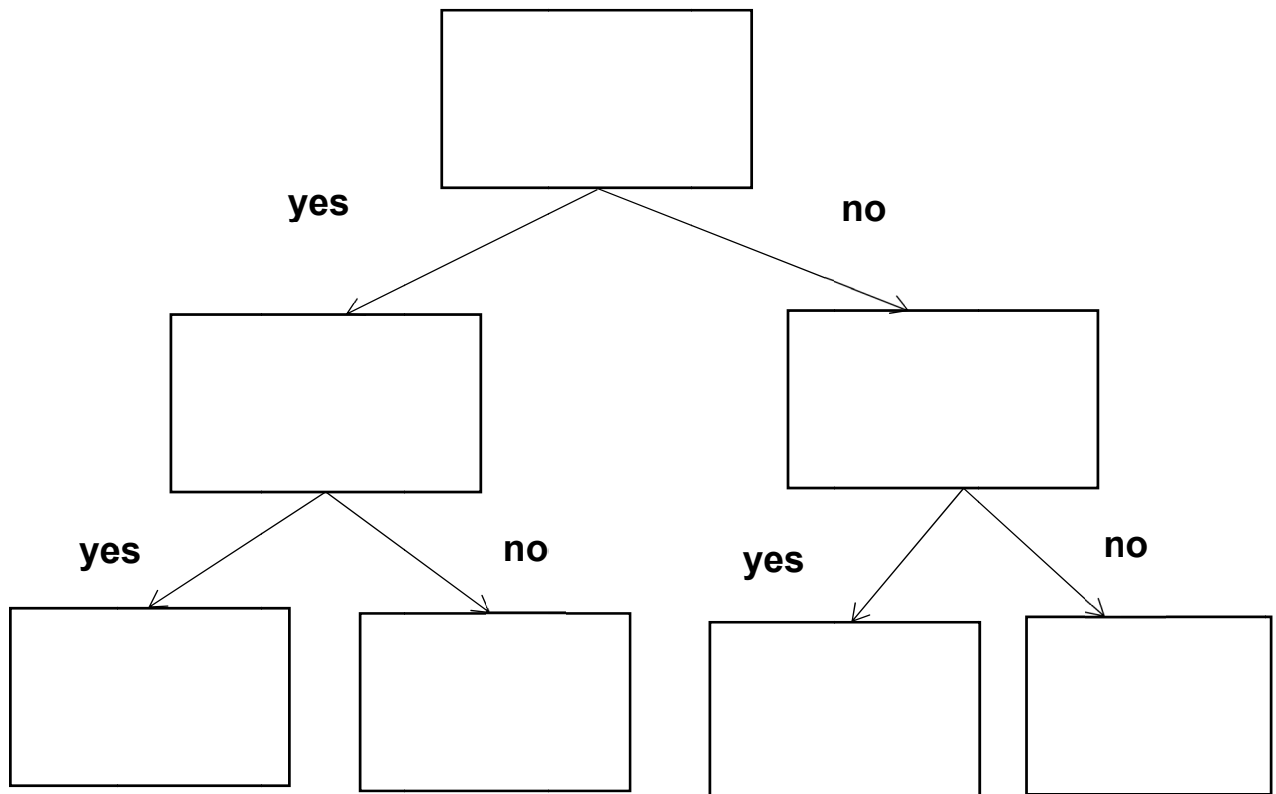
Date: _____

Can you create your own identification key?

Try this one and include these animals.



Your first question could be: 'Does the animal have legs?'



Worksheet 2.5

A different style of key

Name: _____

Date: _____

We can make a key by asking questions. Look at this key below.

Question 1 Does the invertebrate have wings? yes - go to question 2

no - go to question 3

Question 2 Does it have legs?

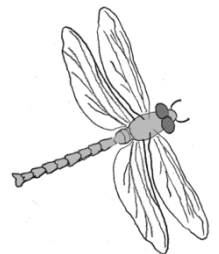
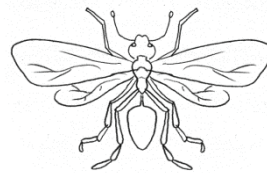
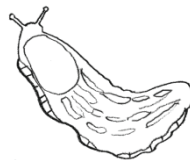
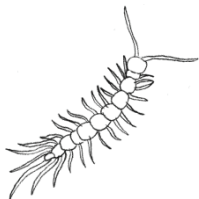
yes - it is a butterfly

Question 3 Does it have a shell?

yes - it is a snail

no - it is a slug

Write your own key of the invertebrates shown here. Think up suitable questions.



Question 1 Can this invertebrate fly?

yes - go to question _____

no - go to question _____

Question 2 _____.

yes - it is a _____

no - it is a _____

Question 3 _____.

yes - it is a _____

no - go to question _____

Question 4 _____.

yes - it is a _____

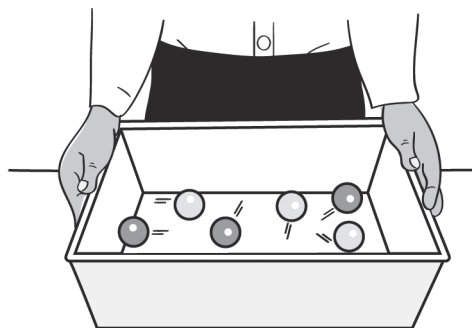
Worksheet 3.2

Make a particle model

Name: _____

Date: _____

This is a practical investigation.



You will need:

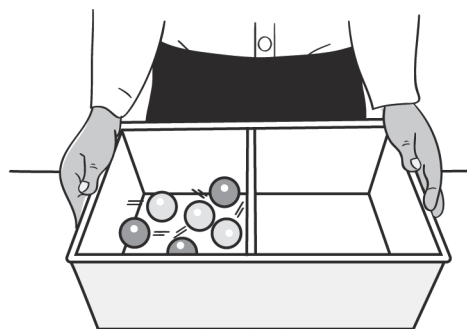
- a rectangular box such as a shoe box
- a piece of cardboard that fits the width of the box to divide it into sections
- about six marbles.

- 1 Place the box on a table. Do not put the divider into the box. Put the marbles in the box. Shake the box in all directions, but without lifting the box from the table.

Observe the movement of the marbles.

Observe the spaces between the marbles.

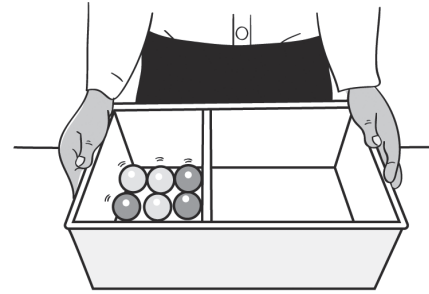
- 2 Put the divider about half way along the base of the box to make the space for the marbles smaller. Put the marbles in one section only. Shake the box in all directions, but without lifting the box from the table.



Observe the movement of the marbles. How is the movement different to the movement of the marbles in step 1?

Observe the spaces between the marbles. How are the spaces different to the spaces between the marbles in step 1?

- 3** Put the divider close to one end of the box to make the space for the marbles even smaller. This time the marbles must be as closely packed as possible. Shake the box in all directions, but without lifting the box from the table.



Observe the movement of the marbles.
How is the movement different to the movement of the marbles in steps 1 and 2?

Observe the spaces between the marbles. How are the spaces different to the spaces between the marbles in steps 1 and 2?

- 1** You have made three arrangements with the box and marbles. Which one do you think is a model for how particles behave in a solid? Say why you chose this arrangement.

- 2** Which do you think is a model for how particles behave in a liquid? Say why you chose this arrangement.

- 3** Which do you think is a model for how particles behave in a gas? Say why you chose this arrangement.

- 4** What else could you have used to represent the particles of matter?

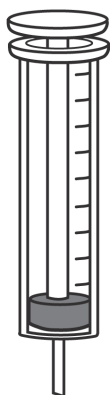
Worksheet 3.3a

Squashing gases, liquids and solids

Name: _____

Date: _____

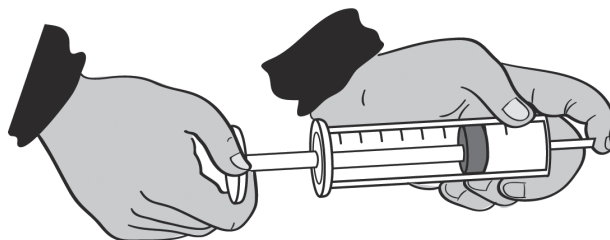
This is a practical activity.



Pull the plunger back to the 10ml mark.
The syringe now contains 10ml air.

Cover the open end of the syringe with
your free thumb.

Push the plunger in as hard as you can.
Can you push the plunger below the 10ml
mark to squash the air?



It is easy to squash or compress air.
Think back to the particle model.
Remember that particles in a gas are
far apart. There is plenty of space
between the particles so it is easy to
squash the particles.

Now push the plunger into the syringe
as far as it will go.

Place the open end of the syringe in the
water. Slowly pull the plunger out to
let in about 12ml water. You will see
that you have sucked up some air with
the water.

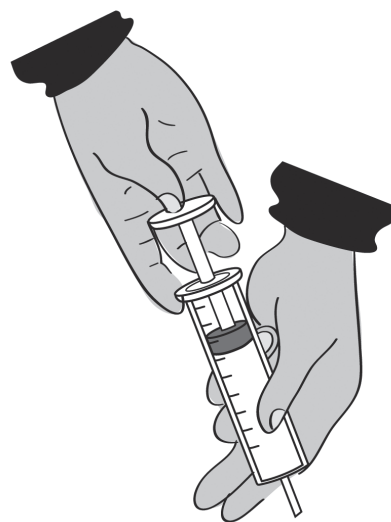
You will need:

- a syringe without the needle
- some water in a cup or beaker
- a freezer.



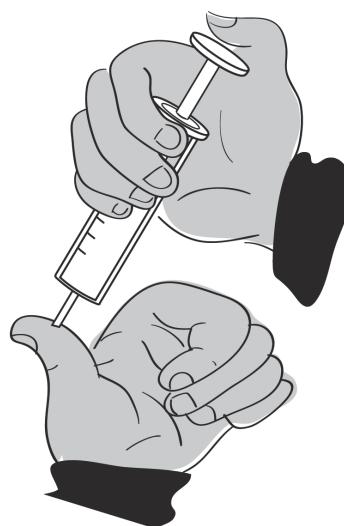
Hold the syringe with the plunger downwards. Gently push the plunger up to the 10ml mark. The air should be pushed out now.

Press the open end of the syringe against the thumb of your other hand. Push the plunger into the syringe as hard as you can. Can you push the plunger below the 10ml mark? Is it easier or more difficult than squashing air?



It is difficult to compress a liquid when it is in an enclosed space like a syringe. But it is possible. Think back to the particle model. Remember that particles in a liquid can slide over each other.

Fill the syringe with water. Freeze the water in the syringe. When it is frozen, try to compress the ice by pushing down the plunger. Can you do it? Is it easier or more difficult than squashing air or water?



- 1 Which is easiest to squash, a gas, a liquid or a solid?

- 2 Use the particle model to write a sentence to explain how you can squash a gas.

Worksheet 3.3b

Making crystals

Name: _____

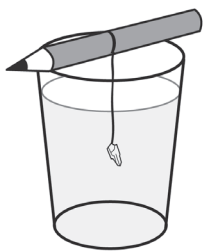
Date: _____

This practical activity shows how a solid keeps the same shape as it grows.

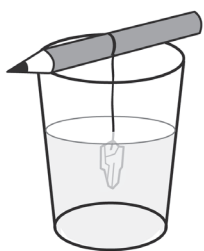
- 1 Tie the cotton thread round your large crystal.
- 2 Fill the drinking glass about one third full of warm water. Add salt slowly, and use the pencil to stir the mixture. Stop adding salt when no more will dissolve in the water.
- 3 Allow the mixture to cool.

You will need:

- a crystal of salt which is large enough to tie a piece of cotton to
- a piece of cotton thread about 10cm long
- a drinking glass or jam jar
- some table salt or cooking salt
- a pencil
- some warm water.



- 4 Carefully hang your large crystal in the mixture in the glass so that it is just covered by the mixture. Keep it in place by winding the other end of the cotton thread round the pencil and balancing the pencil across the top of the drinking glass.



- 5 Leave the drinking glass in a safe place for several days. Make sure each day that the crystal is still in the mixture.

Watch your crystal grow.

- 6 Draw your crystal to show the shape.

Worksheet 3.4b

Observing a lit candle

Name: _____

Date: _____

Carry out this practical activity and answer the questions.

Light the candle. Observe what happens.

Let the candle burn down completely. Observe what happens.

- You will need:
- a candle in a holder
 - matches.

1 What happened to the candle when it burnt?

2 Fill in the phase changes a candle went through when you heated it.

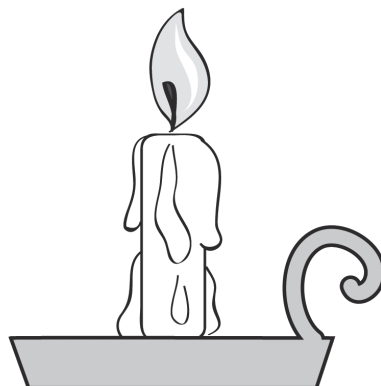
candle wax (_____ phase) $\xrightarrow{\text{heat}}$ candle wax (_____ phase)

3 a How did some of the candle wax change when you heated it more?

b Describe the phase change that happened when you heated it more.

4 a What happened to the liquid wax when it cooled down?

b What phase change took place?



Worksheet 4.3

Observe how vibrations cause sound

Name: _____

Date: _____

This is a practical activity. All sound is caused by vibrations.
You will explore how different materials vibrate to make sounds.

You will need:

- a ruler
- an elastic band.

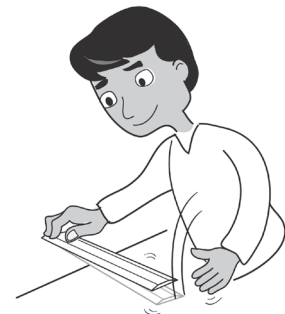
- 1 Stretch out the elastic band, like the girl in the picture. Get a partner to pull it gently and let go. Observe the vibrations of the elastic band.



- a Does the elastic band make a sound when it vibrates? yes/no
- b Pull the elastic band harder. What happens to the size of the vibrations?

- c What happens to the sound?

- 2 Hold one end of the ruler on the edge of a desk. Get your partner to push the other end down and let go. Observe the vibrations of the ruler.



- a Does the ruler make a sound when it vibrates?
- b Push harder on the end of the ruler. What happens to the size of the vibrations?

c What happens to the sound?

3 Fill in the missing words to complete the following sentences.

a Objects make sound because they _____.

b When vibrations are small, an object makes a _____ sound.

c When the vibrations get bigger, the sound gets _____.

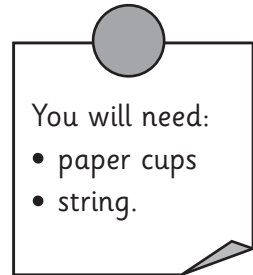
Worksheet 4.1

Plan an investigation

Name: _____

Date: _____

This is a practical activity. You have to think about some questions before you carry out the practical activity.



You will need:

- paper cups
- string.

Lee said at his school they made paper cup telephones because they work better than tin can telephones. What do you think?

1 Write down a question that you can test.

2 What will you measure or test? How will you do this?

3 What will you keep the same? How will you do this?

4 What will you change? How will you do this?

5 How will you make your test fair?

6 Predict the result you will get.

7 Conduct the investigation. Was your prediction correct?

Worksheet 4.2

Which material does sound travel through best?

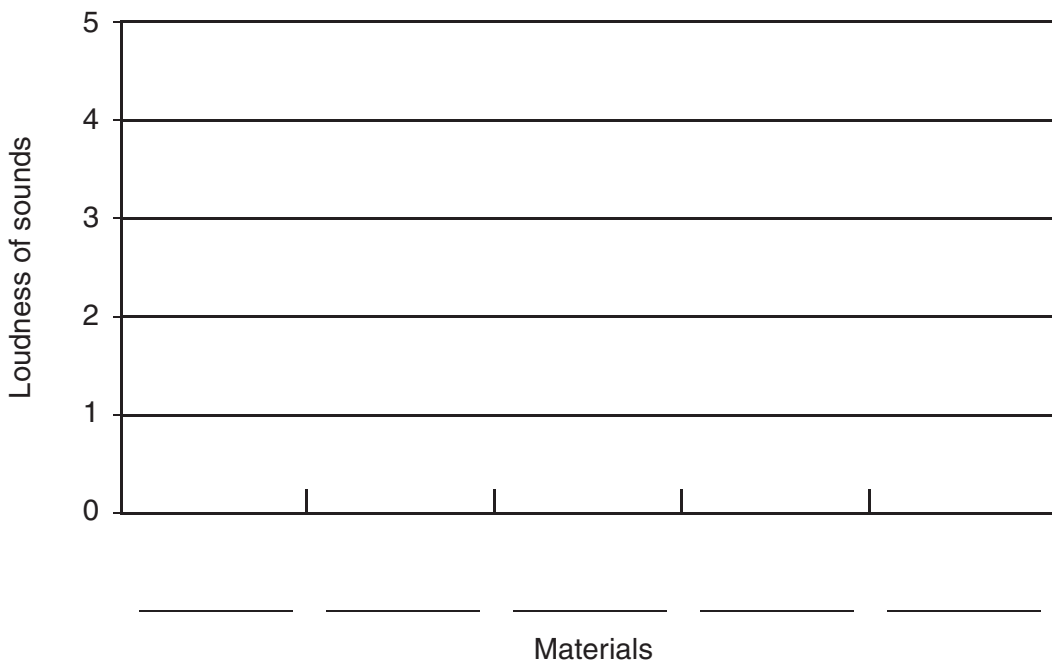
Name: _____

Date: _____

Yasmin and Ahmed listened to sounds through different materials. This is a table of their results.

Material	Loudness of sound
water	✓✓
wood	✓✓✓✓
steel	✓✓✓✓✓
air	✓

1 Draw a bar chart of their results.



2 a Through which material was the sound the loudest? _____

b Through which material was the sound the softest? _____

3 What does the bar chart tell you about how well sound travels through liquids?

4 a If the sound travels through plastic, predict if the sound will be louder or softer than through water.

c Draw another bar on the chart to show how loud you think the sound will be through plastic.

