The City School

PAF Chapter, Junior Section

Science revision worksheet

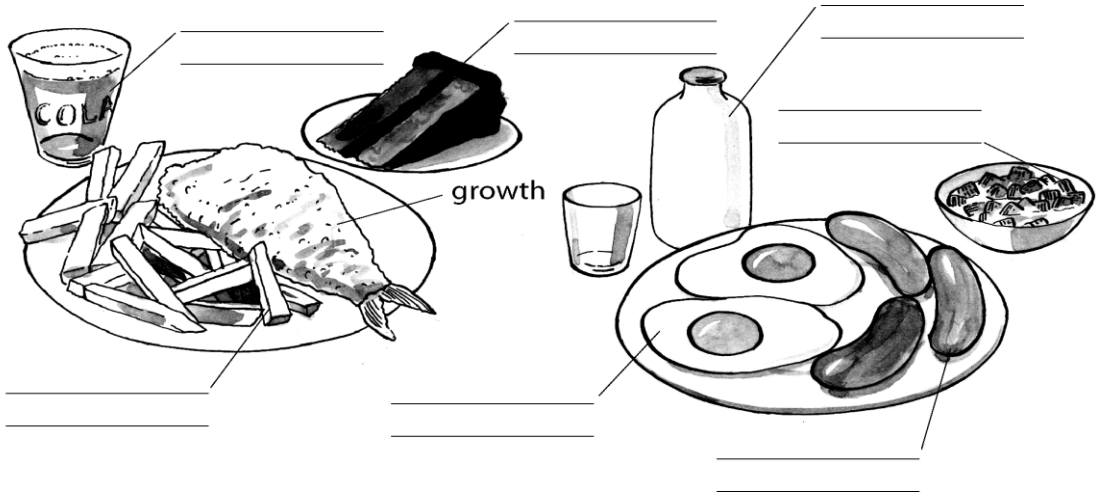
Unit: keeping healthy

Name_____ **Class 5**_____ **Date**_____

Some foods are needed to give you energy. Some foods are needed for growth. Here are some examples.

Food needed for	**Examples**
Energy	Bread, cakes, cereals, pasta, rice, potatoes.
Growth	Eggs, fish, meat, milk.

Q1a. Look at these meals. For each part say whether the food is used for energy or growth. One has been done for you.



b. There is a special word for all the food you eat. What is this word? Circle the correct answer.

diet **energy** **growth** **hunger** **meal**

c. As well as food for energy and growth, you need to eat foods to keep you healthy. Which *two* of these do you need to eat to stay healthy? Circle the correct answers.

cakes **fizzy drinks** **fruit** **ice cream** **sweets** **vegetables**

d. Explain why you should not eat too many sweets?

e. Circle 'true' or 'false' next to each statement. If the statement is false, write out a correct version underneath.

1 In science, the word **diet** means what you eat. **True** **False**

2 Foods containing **sugar** are the most important to help you grow. **True** **False**

3 The **fats** in foods can be used to keep you active. **True** **False**

4 Having a **balanced diet** means only eating small amounts of food. **True** **False**

5 Some people eat too much food and get fat. **True** **False**

6 **Starch** in food is needed to give you energy. **True** **False**

7 Meat and fish both contain things that are needed to help you grow. **True** **False**

8 Fruit and vegetables are not important in a balanced diet. **True** **False**

9 Milk contains a **mineral** called **calcium** which keeps teeth and bones healthy. **True** **False**

10 Cheese does not contain any fat. **True** **False**

Q2. What is the circulatory system?

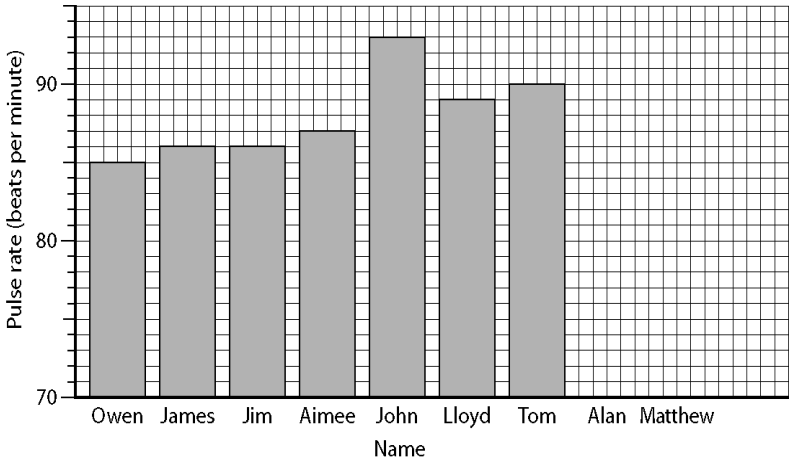
Q3. How many chambers does the heart have?

Q4. What colour would the blood be if you took out all the cells and platelets?

Q6a. What things do all the parts of your body need?

b. Where do these things come from?

Q7. The nurse went on to measure the pulse rates of some of Owen's friends. This bar chart shows the results.



a The nurse has not added two of her measurements. Alan had a pulse rate of 88 and Matthew had a pulse rate of 92. Plot these results on the bar chart.

b Who had the highest pulse rate?_____

c Who had the lowest pulse rate?_____

d What was the most common pulse rate?_____

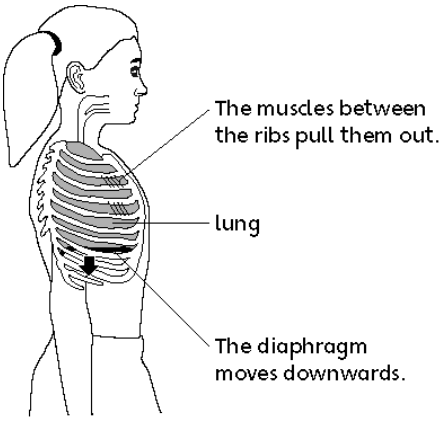
e What is the difference between the highest and lowest pulse rates?_____

Breathing:

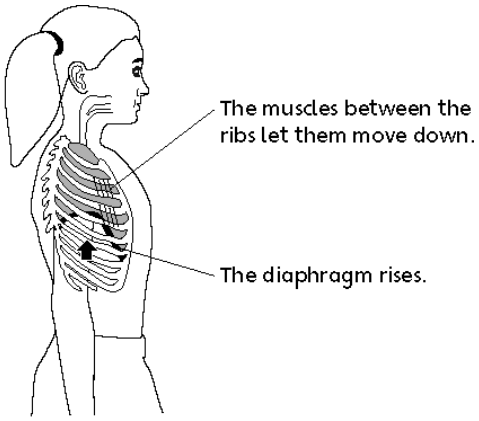
Like your heart, your lungs are protected by your ribs. Your ribs have muscles between them which move them up and down. When these muscles contract (get shorter), they pull your ribs upwards and outwards. This movement makes the lungs bigger.

Respiration

Oxygen is needed by every part of your body for a process called **respiration**. In this process, oxygen and food are used up to provide energy. Respiration produces another gas called **carbon dioxide** which goes back into the blood. The carbon dioxide travels in the blood to your lungs and you breathe it out.



Breathing in.



Breathing out.

Q8. What happens inside your body when you breathe:

a in **b** out?

Q9. Why do you need oxygen?

Q10. Name three substances carried in your blood.

Q11. When you exercise you breathe much more deeply and more quickly. Explain why.

Q12. There is not just oxygen in the air. Find out:

a the names of two other gases in the air

b how much of the air is oxygen.

Q13. Explain why Alex's pulse rate changes when he does exercise.

Q14. What are parts of the body that can move bones called?

b When Alex moves his lower leg forward, which part contracts?

c When this part contracts, what happens to the other part?

d The knee is a **joint**. Name two other joints.

UNIT: GASES AROUND US

When we describe what something is like we are describing its **properties**. The words in the box are properties.

1 a Write the letters for the properties in the table to describe the things. You may need more than one letter for each thing.

A runny	**B** cold	**C** hard	**D** takes the shape of its container
E keeps its shape	**F** hot	**G** does not flow	**H** keeps its volume

Thing	milk	wooden chair	stone	ice	water	freshly made coffee	plastic ruler
Properties							

b Which of the things in the table are solids?_____

c Which properties do *all* solids have?_____

d Which of the things in the table are liquids?_____

e Which properties do *all* liquids have?_____

2 The air is made of gas. What do you think the properties of gases are?

a. Aluminium and steel are both solids.

b. Name one property of all solids.

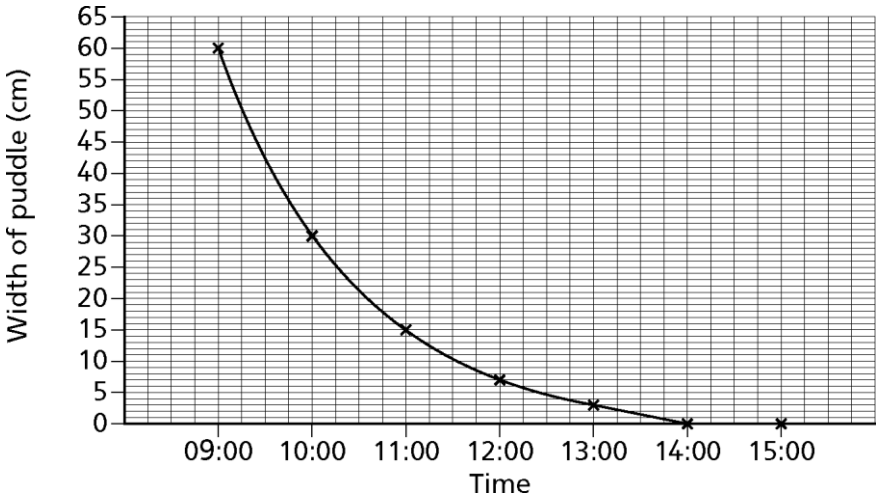
c. Name one property of aluminium that is different to steel.

3 When things are welded a metal is heated up until it becomes a liquid.

a What is it called when a solid turns into a liquid?_____

b What is it called when a liquid turns into a solid?_____

Q6. Chelsea did an experiment to find out how long it took for a puddle in the playground to dry up. She measured the width of the puddle every hour after it stopped raining. The graph shows her results.



Graph to show the width of a puddle during six hours.

a What happened to the width of the puddle during this experiment? _____

_____

b At what time did Chelsea start her experiment? _____

c At what time was the puddle 11 cm wide? _____

d At what time was the puddle completely gone? _____

Q7. Choose words from the brackets to explain why the puddle dried up.

The water in the puddle (evaporated/melted/condensed) and changed into a (liquid/solid/gas) called water (liquid/vapour/gas). This went into the air.

Q8. Some liquids have a smell because some of the liquid changes into a gas. We can smell some gases.

a. Which part of your body do you use to smell things? _____

b Explain why you can smell wet paint._____

c Why can't you smell dry paint? _____

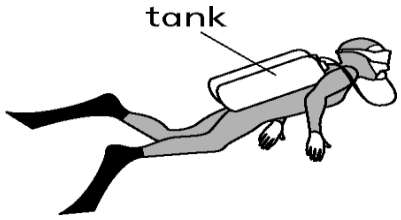
Q9. Fill in the table below, writing 'yes' or 'no' in the boxes.

	Solids	Liquids	Gases
Do they flow?			
Do they keep their shapes?			
Do they take up the shape of their containers?			
Can they be squashed?			
Do they keep their volumes?			
Do they evaporate?			
Can they have a smell?			
Do they easily escape from their containers?			

Q10. Here are three ways in which things are stored. Write down what can be stored in each container and why this container is suitable. Use the phrases in question 1 to help you.

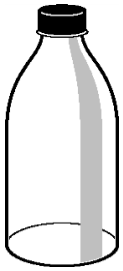
a. This tank is used to store _____

It is suitable because _____



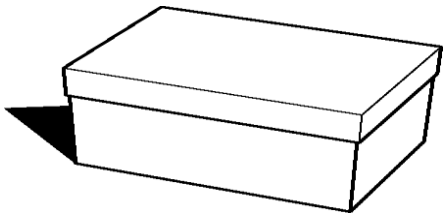
b This bottle is used to store _____

It is suitable because _____



c This box is used to store _____

It is suitable because _____



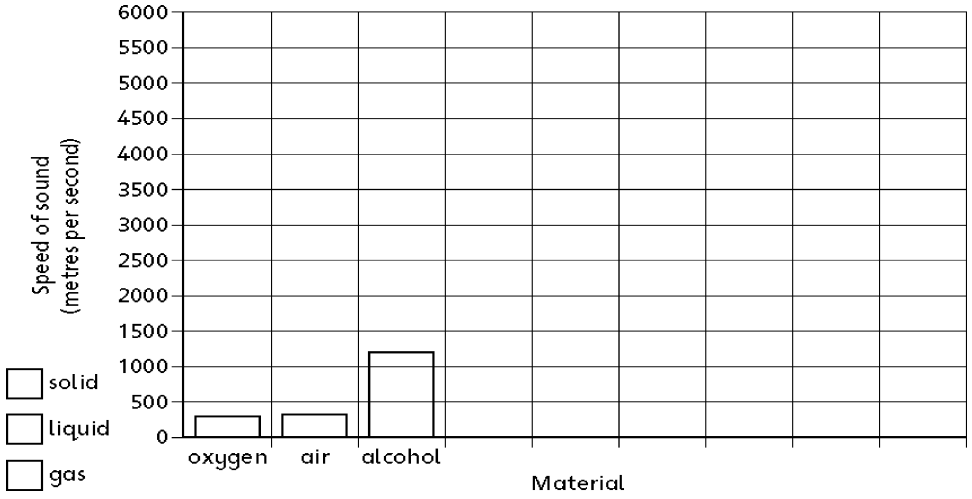
Unit: Changing Sounds

This table shows how fast sound travels in different materials.

Material	Speed of sound (metres per second)	Solid, liquid or gas?
Oxygen	300	*gas*
Air	330	
Alcohol	1200	*liquid*
Water	1500	
Brick	3000	
Glass	4500	
Concrete	5000	
Iron	5000	
Steel	6000	*solid*

1 Decide if each material is a solid, a liquid or a gas, and fill in the last column. Some have been done for you.

2 Plot a bar chart to show this information. Use different colours to show which materials are solids, which are liquids, and which are gases, and colour in the key to show what the colours mean.



The speed of sound in different materials.

3 Class 5 had some ideas about the speed of sound in different materials. Look at your bar chart to help you answer these questions.

a Annie thinks that sound always travels fastest in air.
Do you think that Annie is right? Explain your answer._____
_____

b Ben thinks that sound always travels fastest in metals. Steel and iron are metals.
Do you think that Ben is right? Explain your answer._____
_____

c Charlie thinks that sound always travels fastest in building materials like brick and concrete.
Do you think that Charlie is right? Explain your answer. _____
_____

d Dipesh thinks that sound travels fastest in solids and slowest in gases.
Do you think that Dipesh is right? Explain your answer._____
_____

4. Copy the following sentences, and finish them off. Include one of the following words or phrases in each answer.

and because but however such as herefore which so to

1 Sounds are made when things vibrate …

2 Sound can travel through different materials …

3 Some sounds are a nuisance …

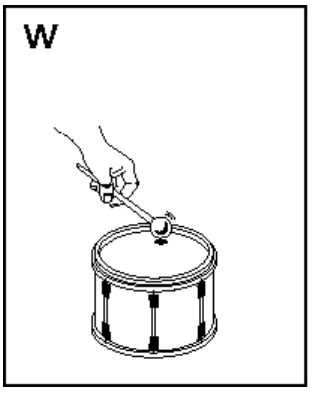
4 Soft materials absorb sound …

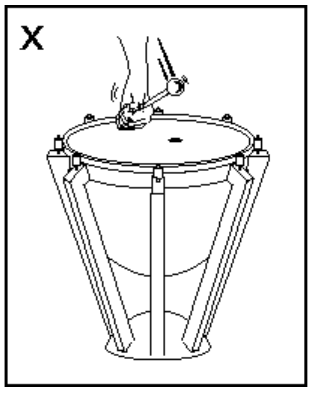
5 Loud sounds can damage our ears …

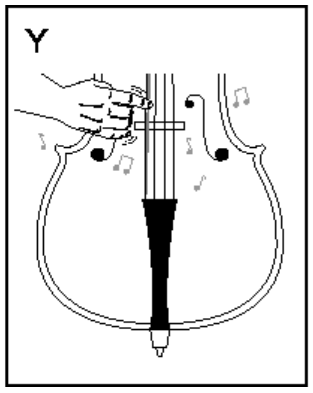
5. Circle the materials which are good at absorbing sound.

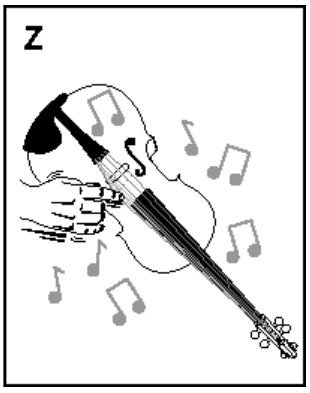
cotton wool brick glass carpet curtains wooden floor

6 Fill in the gaps in the sentences using words from the box below. You may use some of the words more than once. You do not need to use all of the words.









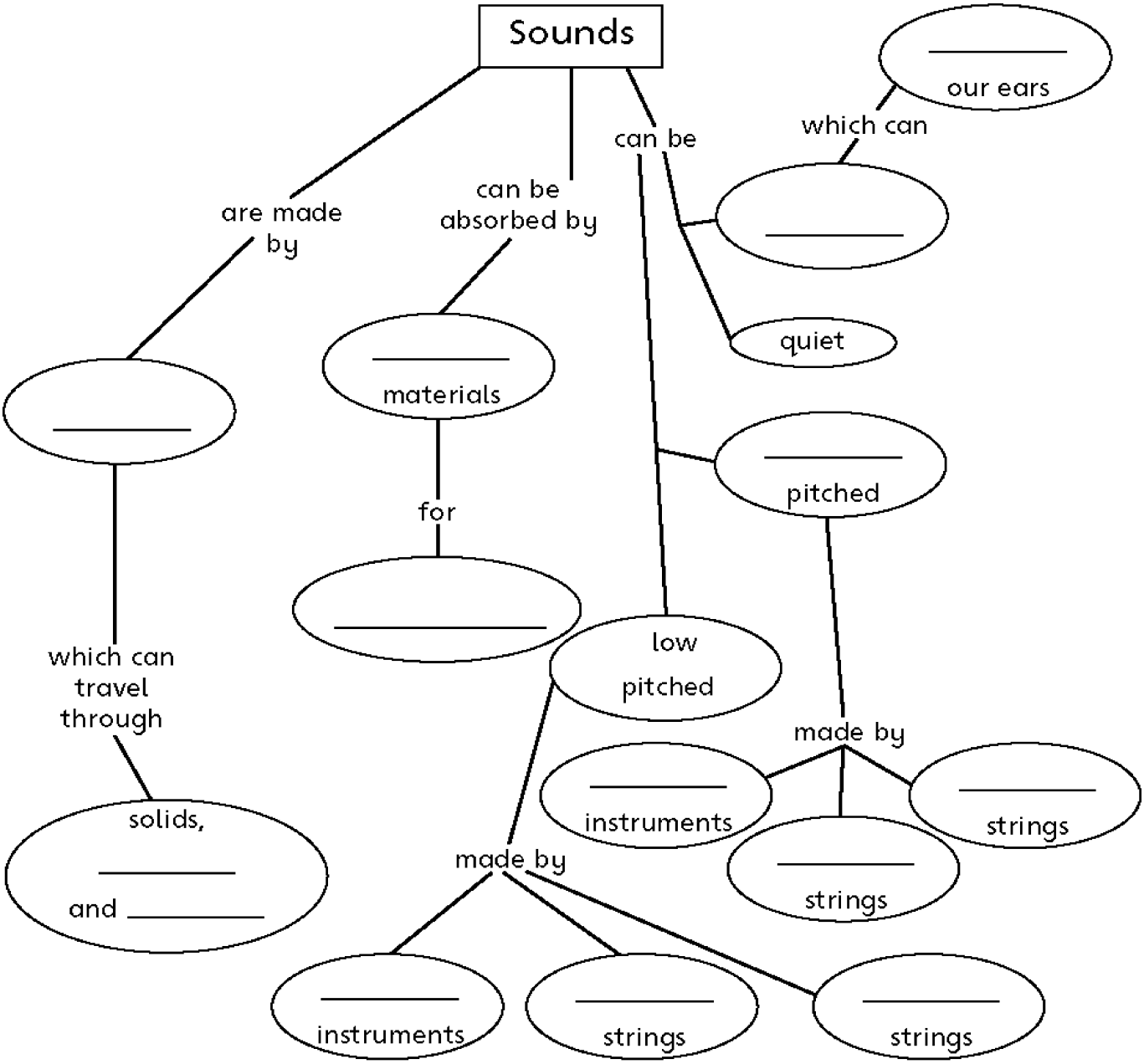
a Drum _____ will make a louder sound, because it is being hit _____ .
b Drum _____ will make a low-pitched sound, because it is _____ .
c Y will make a _____ sound than Z, because the strings are _____.
d Z will make a louder sound than Z, because the strings are being plucked_____.

bigger harder higher-pitched longer lower-pitchedshorter smaller

Q7. Write the answers to the clues in the grid.

a The _____vibrates inside a recorder.
b Soft materials can_____ sound to make things quieter.
c Longer strings make lower sounds than_____ ones do.
d Sound can travel through solids, liquids and_____.
e The_____ of a sound describes how high or low it is.
f A small drum will make a_____ sousnd than a big one.
g When you play a guitar, the_____ vibrate.
h Very loud sounds can_____ your ears.

8. Complete this concept map to show what you know about sounds and how they are made. You can use the words in the box to help you. You do not need to use all of the words. You may need to use some words more than once.



damage	gases	high	liquids	large	long	loose	loud
short	small	soft	soundproofing	tight	vibrations		