

Escape the Operating Theatre



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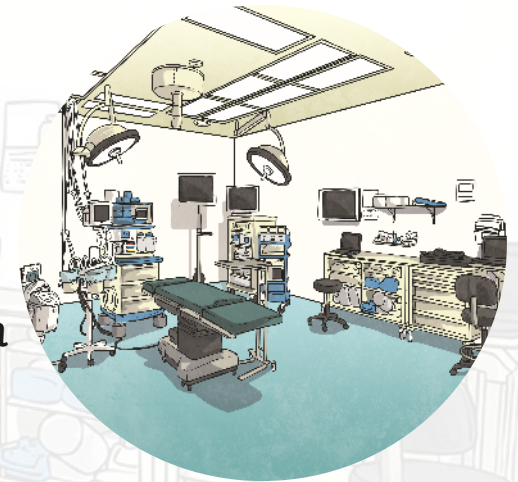
You are having a class visit to the set of a TV show all about hospitals. It's really exciting and you get to meet real-life doctors and surgeons.

During a tour of the operating theatre set, you become interested in looking at all the tools laid out on the operating table. Time flies as you imagine your future as a surgeon.

You come crashing back to reality with a bump when you hear the security door slam. You realise that the tour has left you behind!

The security door has a keypad on it and you must escape the set before the next operation is due to start.

You must solve the clues hidden around to crack the ten-digit code for the keypad. Good luck!



Escape the Operating Theatre

The Rules

- You can work in small groups.
- When you find a clue, work together to solve the puzzle.
- Write your answer down on your answer sheet.
- Once you think you have found all ten digits of the code, check these with your teacher to discover if you can unlock the door and escape the operating theatre.



Escape the Operating Theatre

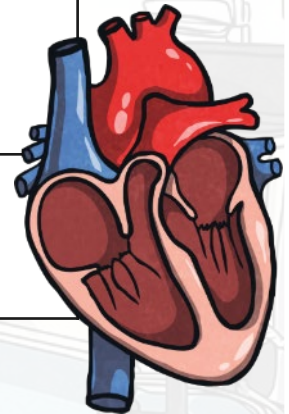


Answers to the Clues

Escape the Operating Theatre – Clue 1

How many of the parts below are in the human circulatory system?

heart	teeth	hair	ribs	arteries
nails	toes	elbows	ankles	knees
eyes	lungs	ears	veins	hips



Four of the parts above are in the human circulatory system.
The **first** digit on the keypad is four.



4

Escape the Operating Theatre – Clue 2

Answer these clues. Rearrange the shaded letters to spell out the second digit on the keypad.

The name of the blood vessels that take oxygenated blood from the heart.

a	r	t	e	r	i	e	s
---	---	---	---	---	---	---	---

The name of the vessels that connect arteries to veins.

c	a	p	i	l	l	a	r	i	e	s
---	---	---	---	---	---	---	---	---	---	---

The name of the blood vessels that take deoxygenated blood back to the heart.

v	e	i	n	s
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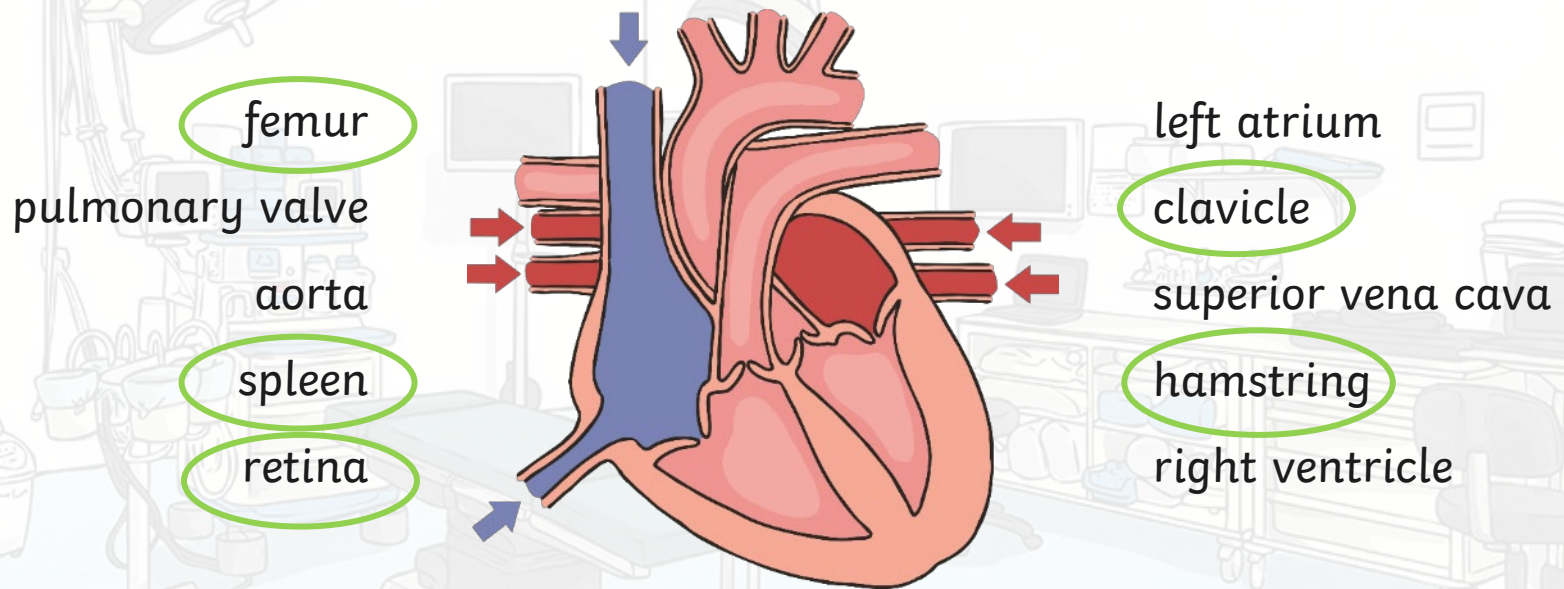
The shaded letters spell out 'seven'. The **second** digit on the keypad is seven.



7

Escape the Operating Theatre – Clue 3

Which of these labels should not appear on this diagram of the heart?



Five of the labels are incorrect.
The **third** digit on the keypad is five.



5

Escape the Operating Theatre – Clue 4

Which of these foods are good sources of protein?



grapes	fish	mushrooms	rice
nuts	olive oil	bread	eggs
potatoes	milk	orange juice	chicken
sweets	tomatoes	bacon	bananas

There are six protein-rich foods.
The **fourth** digit on the keypad is six.



6

Escape the Operating Theatre – Clue 5

How many of these statements are true?

Carbohydrates provide energy.

Proteins help build muscle.

Fats are needed to keep you warm.

Water is needed for cells and body fluids.

Calcium is for a healthy gut.

Iron helps the blood send oxygen around the body.

We can get vitamin D from sunshine.



There are six true statements.
The **fifth** digit on the keypad is six.



6

Escape the Operating Theatre – Clue 6

Which of these statements describes the circulatory system accurately?

1	The lungs take in vitamin D, arteries take calcium around the body, veins take oxygen back to the heart and the lungs get rid of the vitamins that are not needed.
2	Lungs take in oxygen, arteries take oxygenated blood around the body, veins take deoxygenated blood back to the heart and lungs get rid of the carbon dioxide.
3	The heart pumps blood around the body and makes oxygen, which is taken around the body in the blood. Arteries make carbon dioxide which escapes through the skin.

Statement two is correct.
The **sixth** digit on the keypad is two.



2

Escape the Operating Theatre – Clue 7

How many of these are benefits of exercise?

boosts mood

better stamina

reduces stress

better blood circulation

stronger bones

increased fitness

reduces risk of illness



All seven statements are benefits of exercise.
The **seventh** digit on the keypad is seven.



7

Escape the Operating Theatre – Clue 8

How many letters are in the missing word?

- When you breathe in, air travels to the lungs.
- Inside the lungs are bronchioles.
- Air travels through the bronchioles to the air sacs (called **alveoli**) where the oxygen and carbon dioxide transfer to and from the blood.



There are seven letters in the word alveoli.
The **eighth** digit on the keypad is seven.



7

Escape the Operating Theatre – Clue 9

How many of these statements about drugs are false?

Drugs can be good for you.

All drugs are bad.

Alcohol is a type of drug.

Some drugs can be addictive, making the body want more.

Cigarettes don't contain drugs.

All drugs are illegal.

In America, a pharmacy is called a 'drugstore'.

Drugs can be eaten but not drunk.

All drugs are actually medicines.



Five statements are false.
The **ninth** digit on the keypad is five.



5

Escape the Operating Theatre – Clue 10

Which number is missing from each of these symbols?

oxygen = O_?

carbon dioxide = CO_?

The chemical symbols are O₂ and CO₂.
The **tenth and final** digit on the keypad is two.




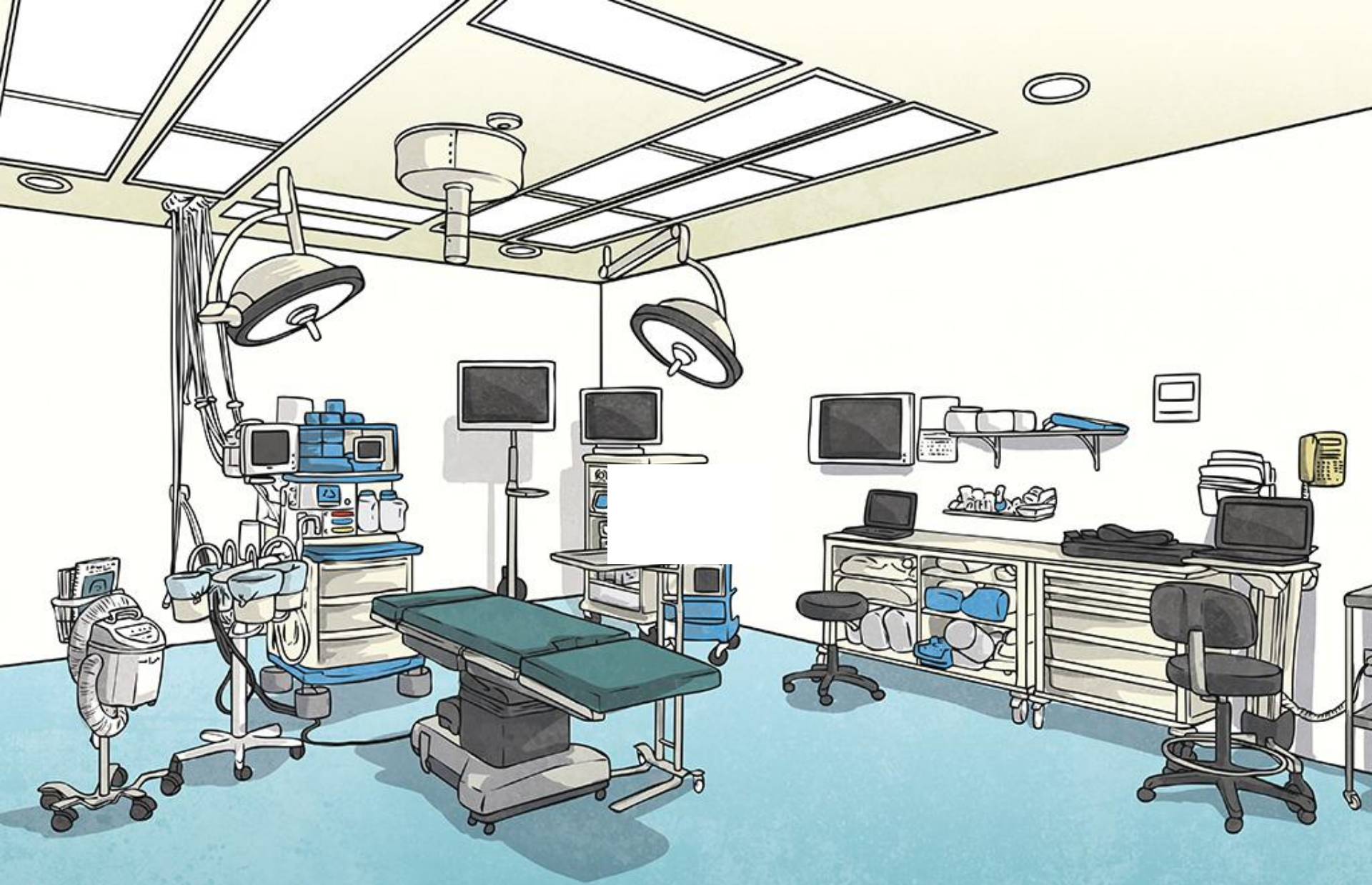
2

Escape the Operating Theatre

Now you've solved all the clues, it's time to enter the code into the keypad and escape the operating theatre!

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



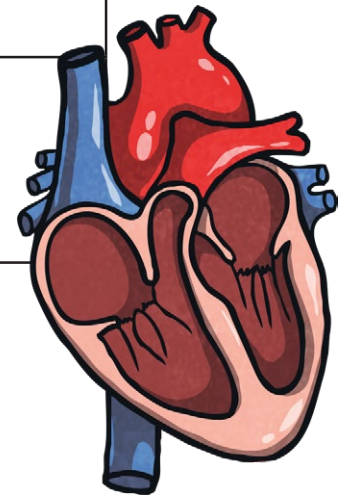


Clue for Digit 1

The human body is amazing and has many different systems to keep it going.

How many of the parts below are in the human circulatory system?

heart	teeth	hair	ribs	arteries
nails	toes	elbows	ankles	knees
eyes	lungs	ears	veins	hips



The number of parts in the human circulatory system is the first digit on the keypad.

Clue for Digit 2

Blood in the human body is carried around by different types of blood vessels.

Fill in the missing words below.

The name of the blood vessels that take oxygenated blood from the heart.

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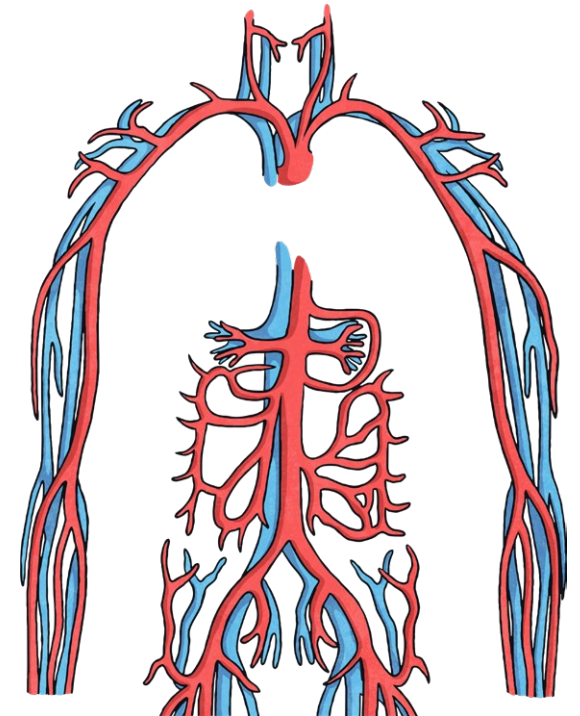
The name of the vessels that connect arteries to veins.

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The name of the blood vessels that take deoxygenated blood back to the heart.

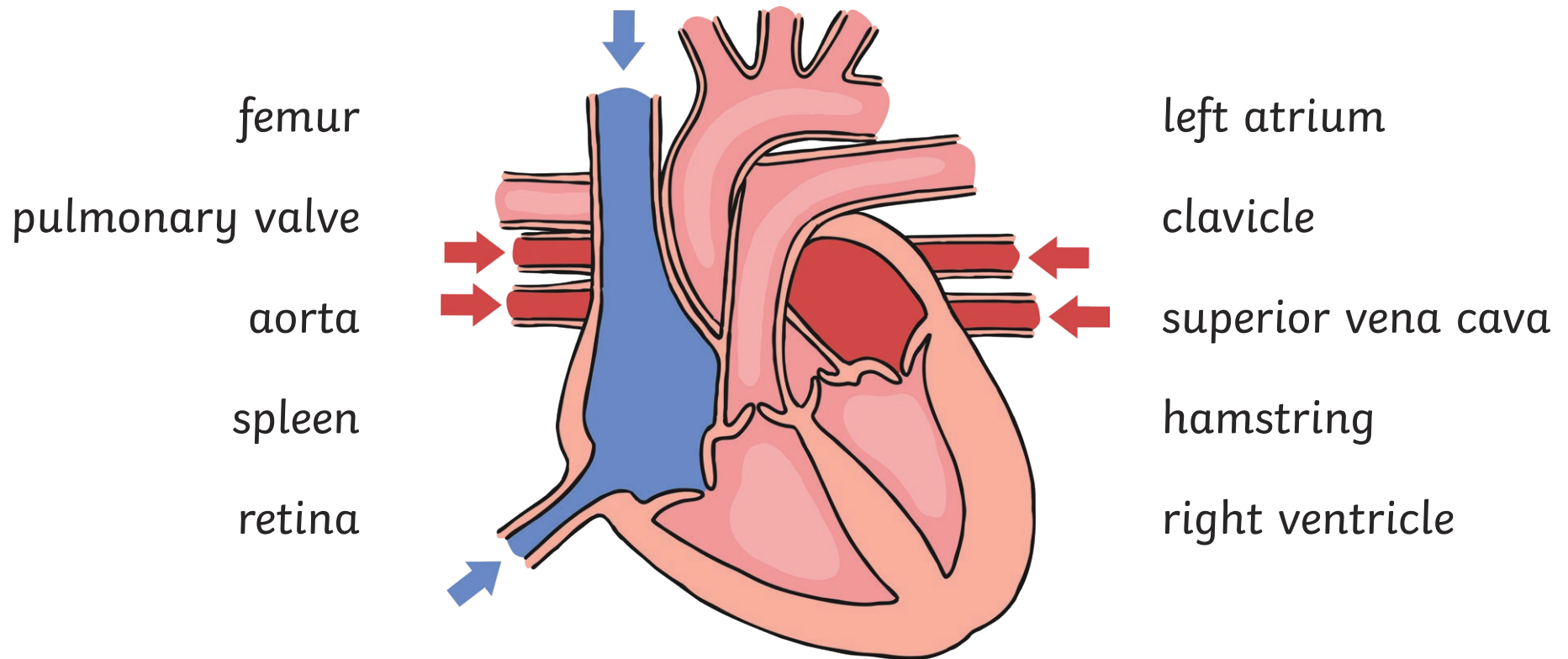
--	--	--	--	--	--	--	--

Rearrange the shaded letters to spell the second digit on the keypad.



Clue for Digit 3

Here is a diagram of the heart. Which of these labels should not appear on this diagram?



The number of incorrect labels is the third digit on the keypad.

Clue for Digit 4

The human body needs a healthy, balanced diet of foods from different food groups.

Which of these foods are good sources of protein?

grapes	fish	mushrooms	rice
nuts	olive oil	bread	eggs
potatoes	milk	orange juice	chicken
sweets	tomatoes	bacon	bananas

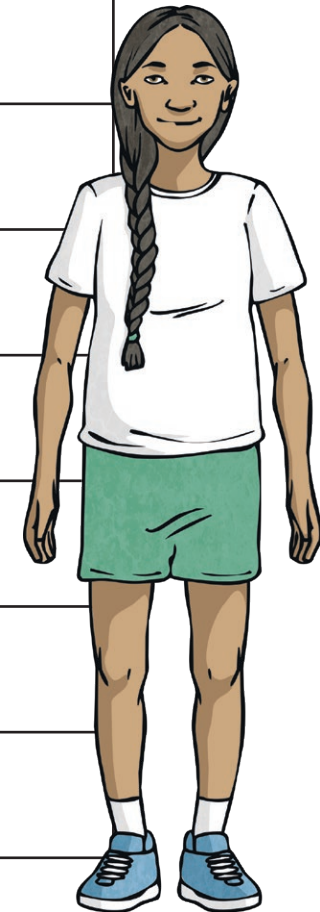


The number of protein-rich foods is the fourth digit on the keypad.

Clue for Digit 5

The body uses food to help it function. How many of these statements are true?

Carbohydrates provide energy.
Proteins help build muscle.
Fats are needed to keep you warm.
Water is needed for cells and body fluids.
Calcium is for a healthy gut.
Iron helps the blood send oxygen around the body.
We can get vitamin D from sunshine.



The number of true statements is the fifth digit on the keypad.

Clue for Digit 6

Which of these statements describes the circulatory system accurately?

1	The lungs take in vitamin D, arteries take calcium around the body, veins take oxygen back to the heart and the lungs get rid of the vitamins that are not needed.
2	Lungs take in oxygen, arteries take oxygenated blood around the body, veins take deoxygenated blood back to the heart and lungs get rid of the carbon dioxide.
3	The heart pumps blood around the body and makes oxygen, which is taken around the body in the blood. Arteries make carbon dioxide which escapes through the skin.

The number of the statement that describes the circulatory system is the sixth digit on the keypad.

Clue for Digit 7

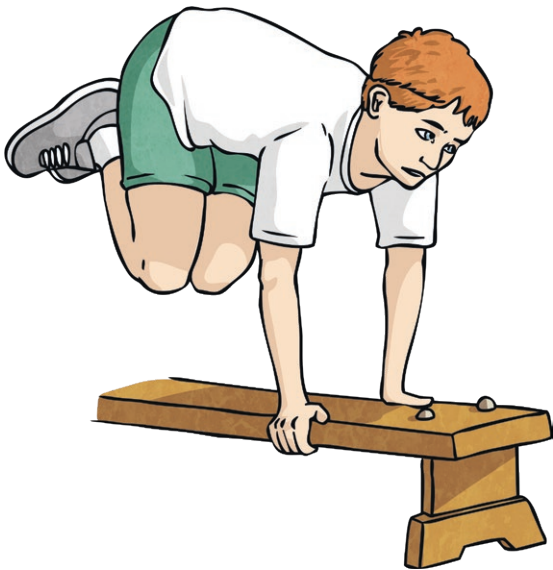
When we exercise, it can benefit our body in many ways.

How many of these are benefits of exercise?

boosts mood

better stamina

reduces stress



better blood circulation

stronger bones

increased fitness

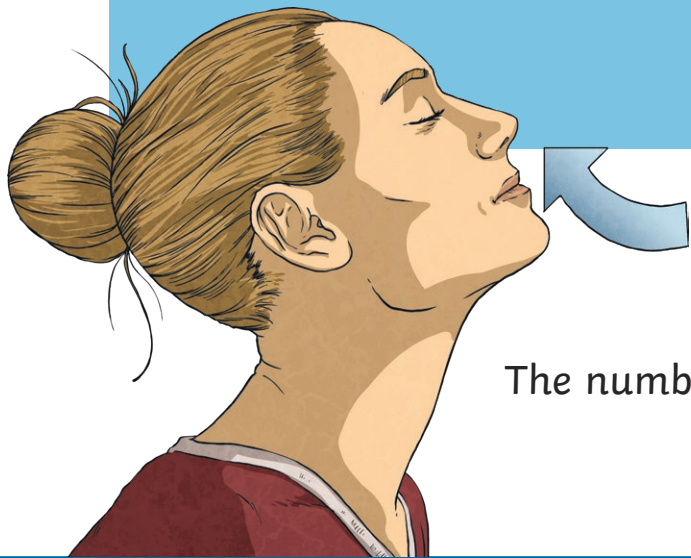
reduces risk of illness

The number of benefits of exercise is the seventh digit on the keypad.

Clue for Digit 8

Fill in the missing word.

- When you breathe in, air travels to the lungs.
- Inside the lungs are bronchioles.
- Air travels through the bronchioles to the air sacs (called _____) where the oxygen and carbon dioxide transfer to and from the blood.

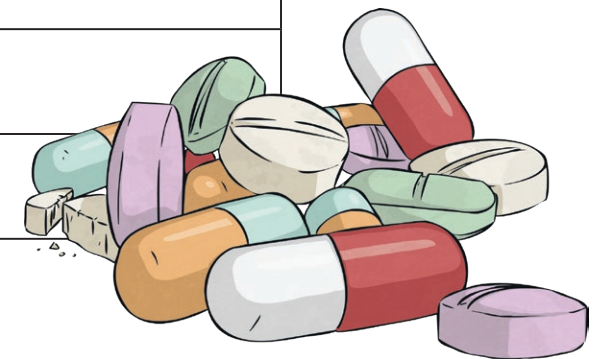


The number of letters in the missing word is the eighth digit on the keypad.

Clue for Digit 9

How many of these statements about drugs are false?

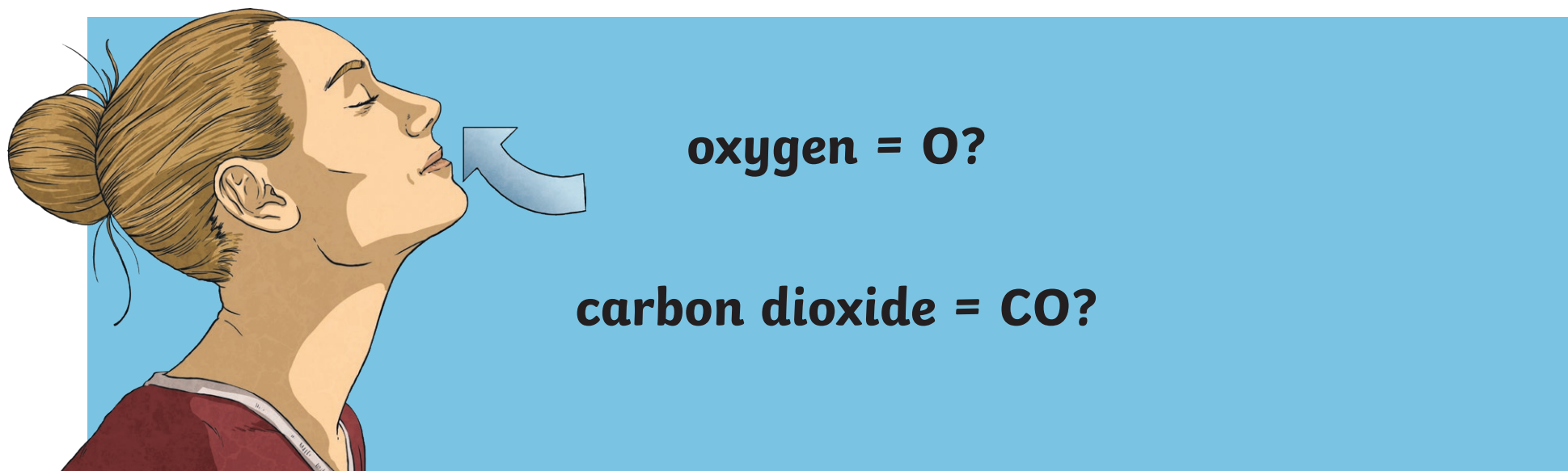
Drugs can be good for you.
All drugs are bad.
Alcohol is a type of drug.
Some drugs can be addictive, making the body want more.
Cigarettes don't contain drugs.
All drugs are illegal.
In America, a pharmacy is called a 'drugstore'.
Drugs can be eaten but not drunk.
All drugs are actually medicines.



The number of false statements is the ninth digit on the keypad.

Clue for Digit 10

Oxygen and carbon dioxide are often seen written as their chemical symbol but which number is missing from each of these symbols?



The number which should be in place of the '?' is the tenth digit on the keypad.

Escape the Operating Theatre Recording Sheet

Solve the clues hidden around the room to discover the keypad passcode needed to escape the operating theatre.

Write the digits on this answer sheet as you crack the clues.

1st digit 2nd digit 3rd digit 4th digit 5th digit 6th digit 7th digit 8th digit 9th digit 10th digit

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Once you have discovered the number for the keypad, check it with your teacher to see if you can escape the operating theatre!

Year 6 Escape the Operating Theatre

Teacher Guide

Children will love playing this escape the room game. Here are some tips on how to ensure the game goes well:

- Prior to playing the game, hide the clues (around the room, hall or even outside) so the children have to search for them. You could even couple this with an orienteering exercise or write your own treasure-trail clues.
- Divide the children into teams and give each team a recording sheet. Mixed ability groups usually work best. However, if you have additional adults to support lower ability pupils, you may wish to put the children into ability groups.
- Show the children the first part of the PowerPoint which explains the scenario. The game works particularly well if you add a dramatic tone to this part!
- Read through the rules of the game. Then, set the children to work. To avoid congestion, the clues can be tackled in any order, just as long as they are written in the correct box on the recording sheet.
- Once enough teams have solved the clues, gather the class back together and enter the code on the PowerPoint.