

Wednesday 30th September  
Morning Challenge

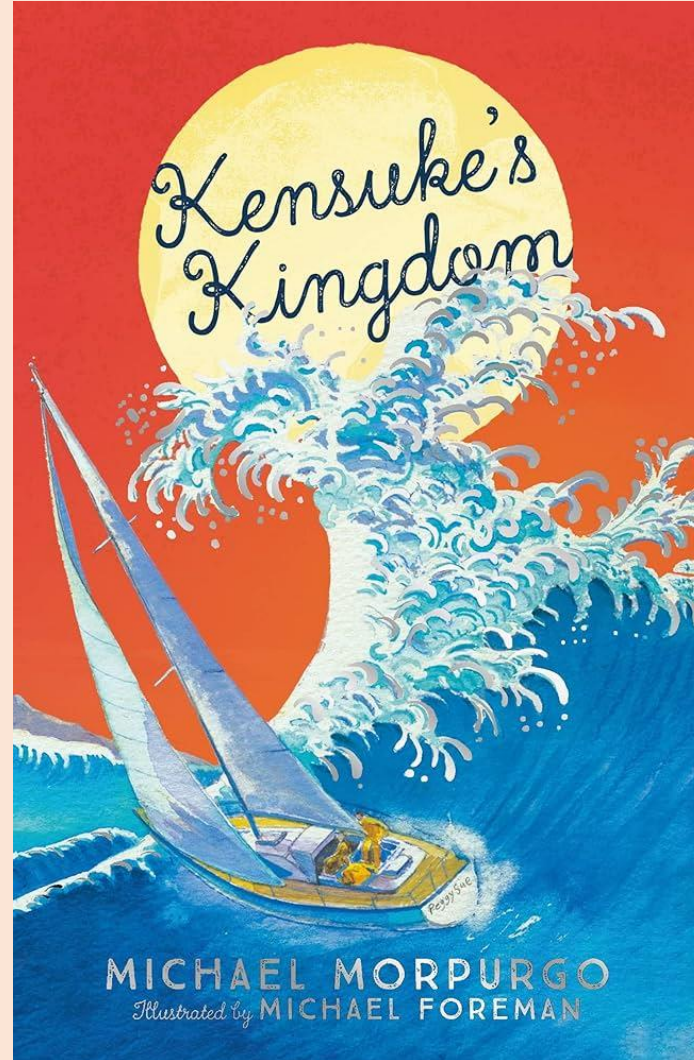
|    |  |   |   |   |
|----|--|---|---|---|
| 1. |  |   |   |   |
|    |  | 1 | 6 | 1 |
| x  |  |   | 2 | 3 |
|    |  |   |   |   |
|    |  |   |   |   |
|    |  |   |   |   |

|    |  |   |   |   |
|----|--|---|---|---|
| 2. |  |   |   |   |
|    |  | 2 | 3 | 2 |
| x  |  |   | 2 | 6 |
|    |  |   |   |   |
|    |  |   |   |   |
|    |  |   |   |   |

|    |  |   |   |   |
|----|--|---|---|---|
| 3. |  |   |   |   |
|    |  | 6 | 1 | 4 |
| x  |  |   | 1 | 8 |
|    |  |   |   |   |
|    |  |   |   |   |
|    |  |   |   |   |

|    |  |   |   |   |
|----|--|---|---|---|
| 4. |  |   |   |   |
|    |  | 9 | 6 | 9 |
| x  |  |   | 9 | 5 |
|    |  |   |   |   |
|    |  |   |   |   |
|    |  |   |   |   |

Wednesday 30th September  
TBAT: read with increasing fluency.



# Number knowledge

Fill in the missing gaps.

$$6 \times \underline{\quad} = 42$$

$$\underline{\quad} \times 8 = 56$$

$$9 \times \underline{\quad} = 72$$

$$\underline{\quad} \times 7 = 63$$

$$12 \times \underline{\quad} = 96$$

$$4 \times \underline{\quad} = 36$$

$$\underline{\quad} \times 6 = 54$$

$$11 \times \underline{\quad} = 88$$

$$7 \times \underline{\quad} = 84$$

$$\underline{\quad} \times 9 = 108$$

$$30 \times \underline{\quad} = 240$$

$$\underline{\quad} \times 40 = 280$$

$$60 \times \underline{\quad} = 420$$

$$\underline{\quad} \times 70 = 560$$

$$90 \times \underline{\quad} = 810$$

30.09.26

TBAT: find missing lengths and angles.

3 in 3

1. \_\_\_\_\_ =  $9^2$

2.  $462 \times 23 =$

A large group of people are going on a trip to a theme park.  
There are 54 groups with 28 children in each group.  
44 grandparents and 39 parents are also going.  
If each ticket costs £28, how much will all of the tickets cost?

3. The table below shows the fruit preferences of **25 pupils** in a class.

a) What **percentage** prefer bananas?

b) What **percentage** prefer apples or peaches?

| Banana | Apple | Pineapple | Peach |
|--------|-------|-----------|-------|
| 8      | 5     | 7         | 5     |

30.09.26

TBAT: find missing lengths and angles.

Recap prior learning – Find numbers to satisfy these equations.

$$a \times b = 36$$

$$c \times d = 24$$

Use some of the cards to create an algebraic equation.

6

x

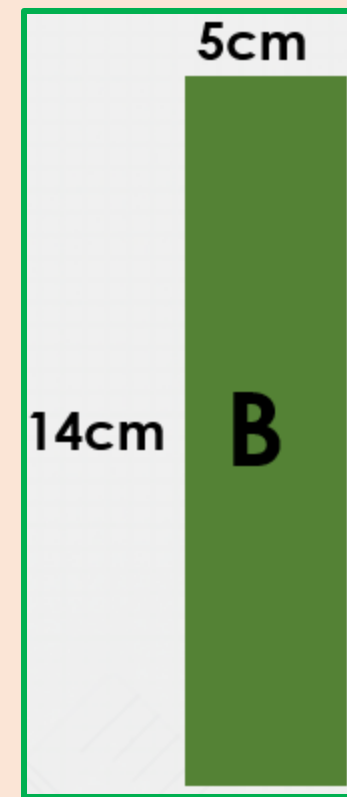
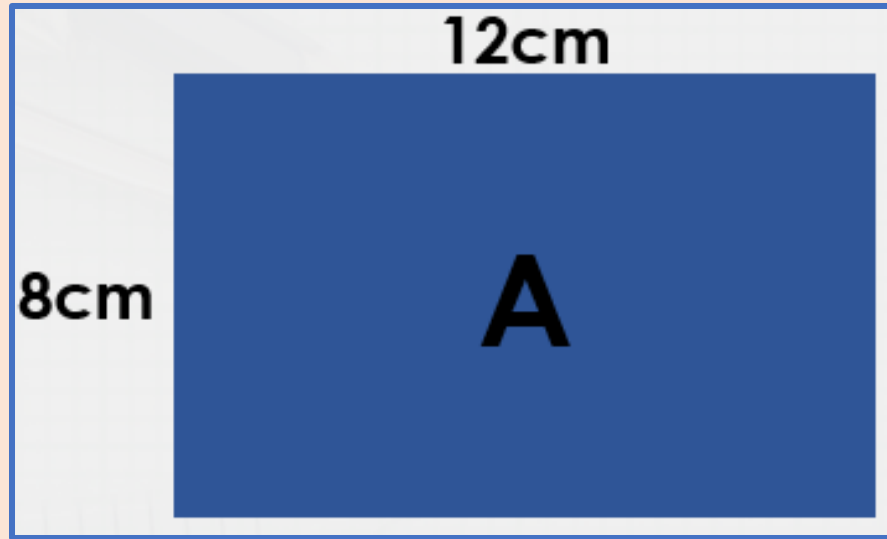
n

36

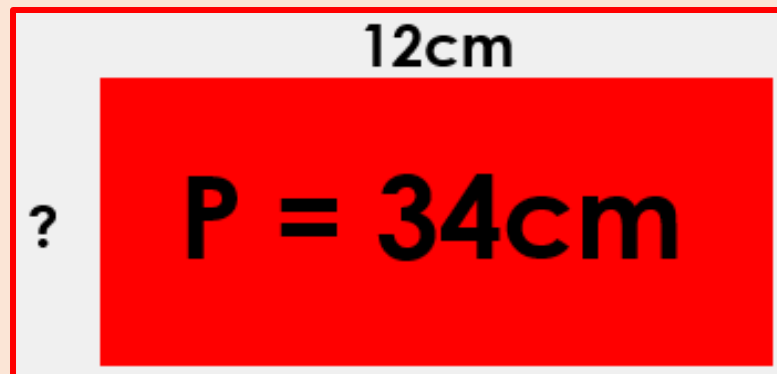
3

30.09.26

TBAT: find missing lengths and angles.



What missing lengths do you need to calculate the perimeter?

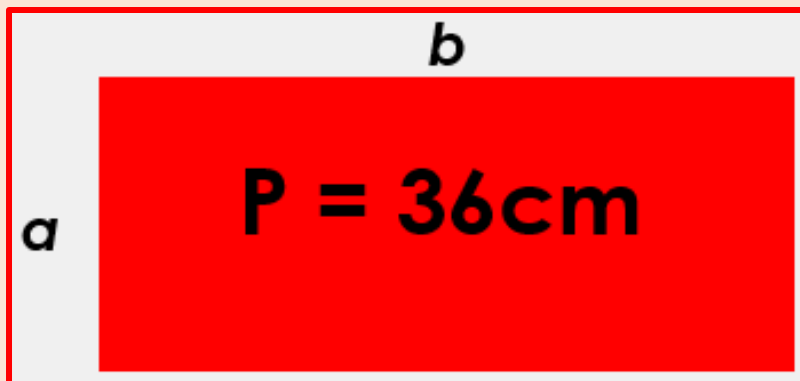
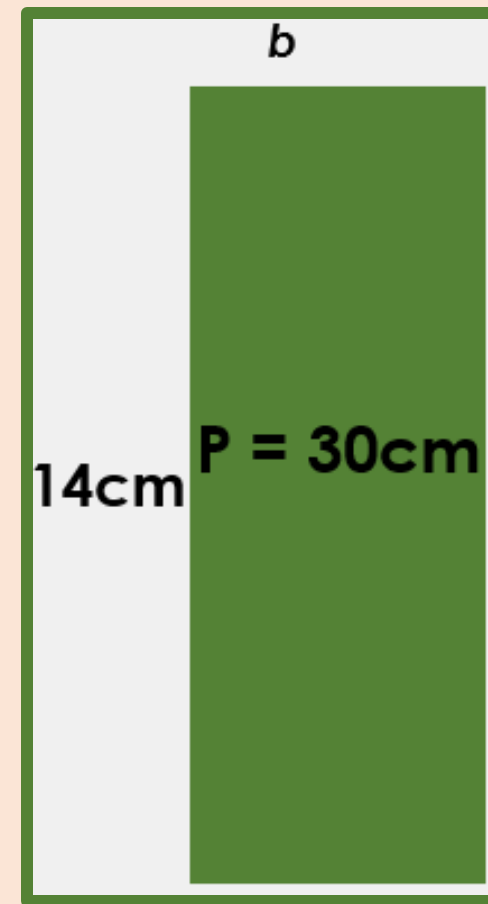
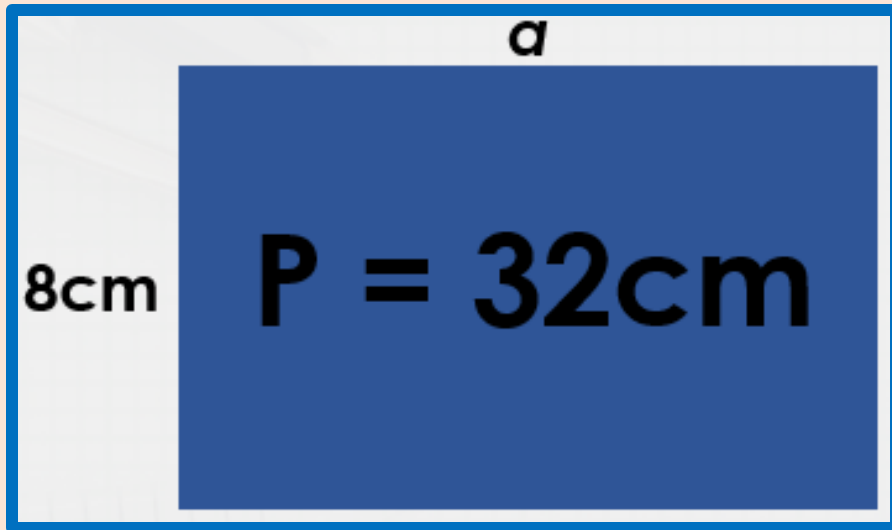


Find the value of the missing length.

30.09.26

TBAT: find missing lengths and angles.

**Find the value of the missing lengths.**

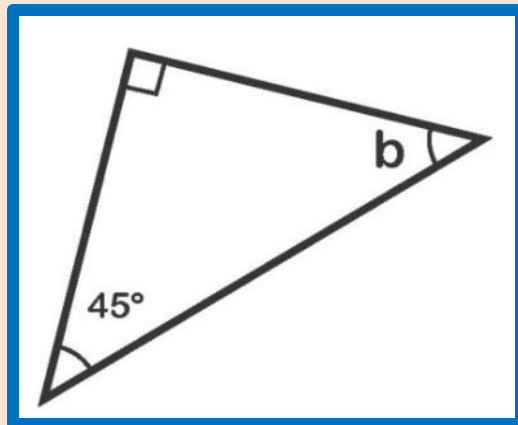
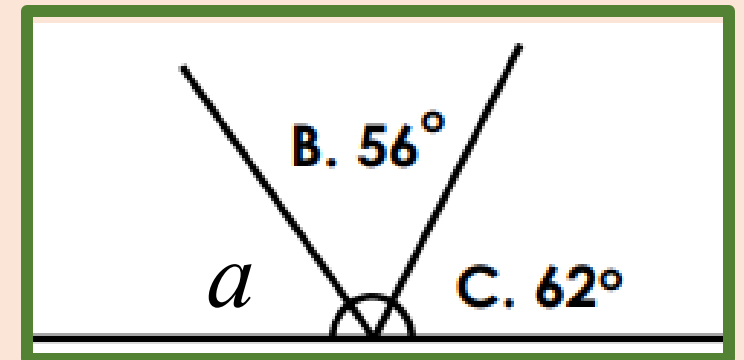
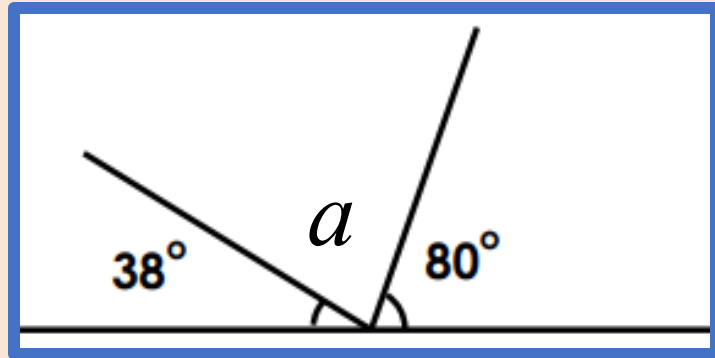
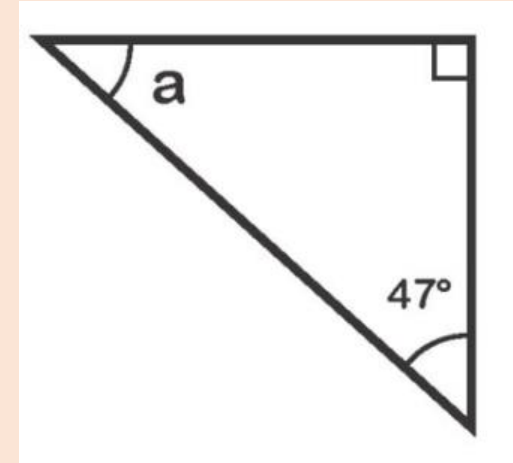
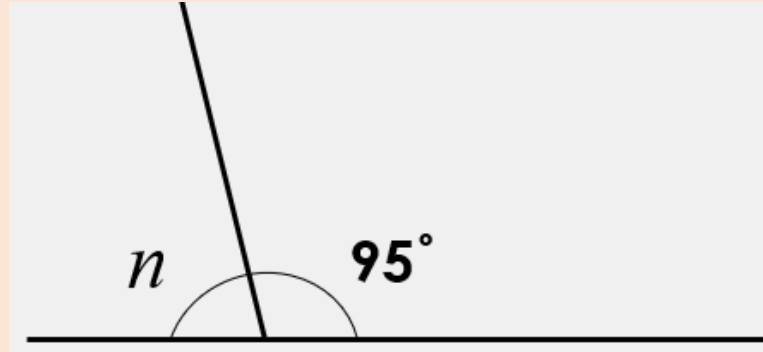


**How many different pairs of numbers  
can you think of to satisfy these  
missing lengths?**

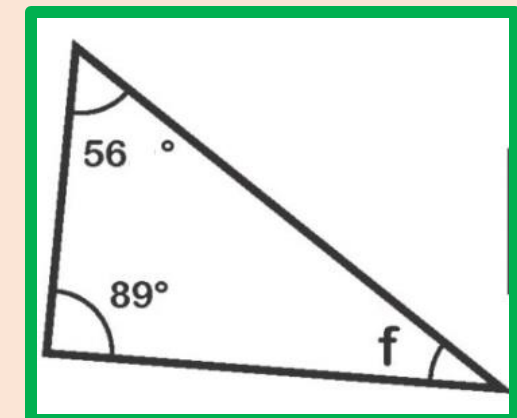
30.09.26

TBAT: find missing lengths and angles.

Find the missing angles.



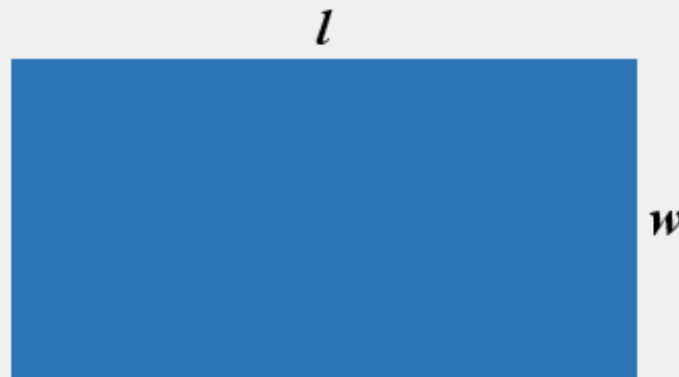
Explain why knowing how many degrees on a straight line can help you work out missing angles?



30.09.26

TBAT: find missing lengths and angles.

**If the formula for finding the perimeter of a rectangle is  $p = 2l + 2w$ , calculate the perimeter of the following rectangles.**



| length ( $l$ ) | width ( $w$ ) | perimeter ( $p$ ) |
|----------------|---------------|-------------------|
| 15cm           | 8cm           |                   |
| 22cm           | 19cm          |                   |
| 12.5cm         | 10cm          |                   |

**Write the formula for finding the area of a rectangle.**

30.09.26

TBAT: find missing lengths and angles.

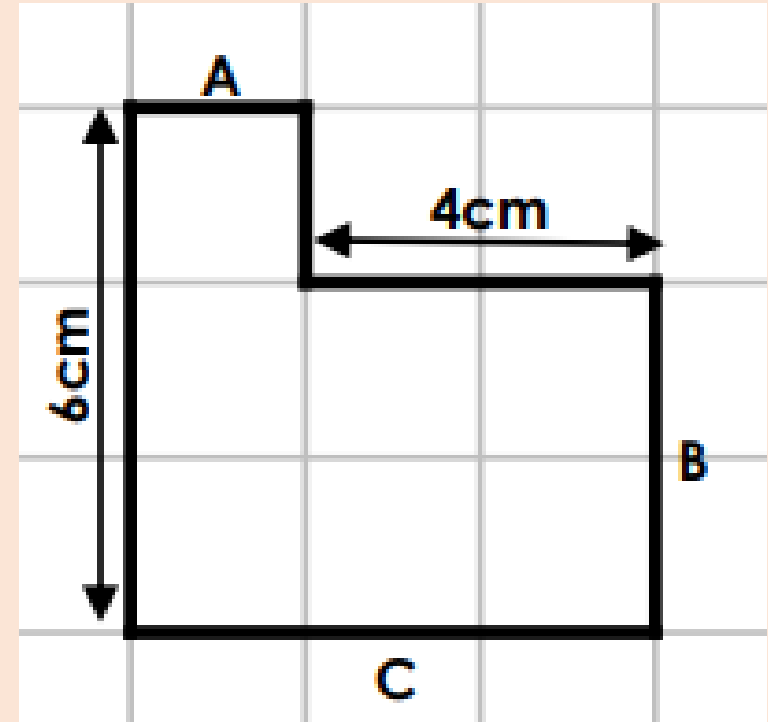
### Knowledge Check

Calculate the length of sides:

A -

B -

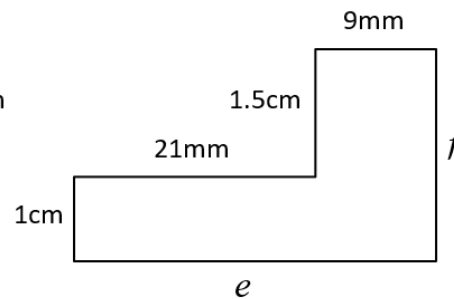
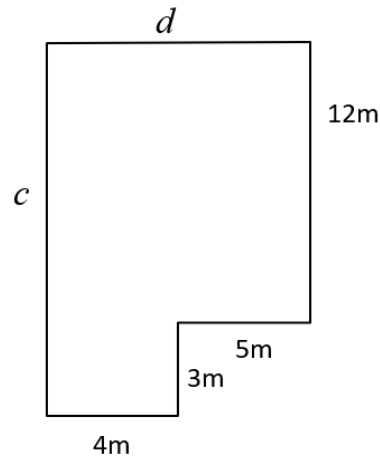
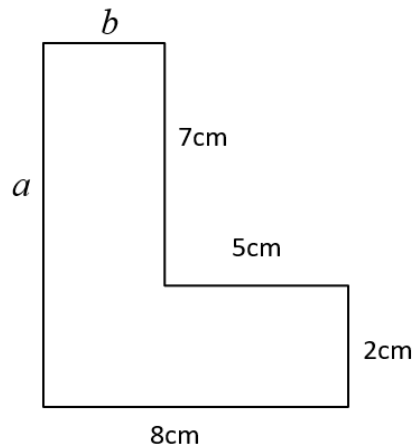
C -



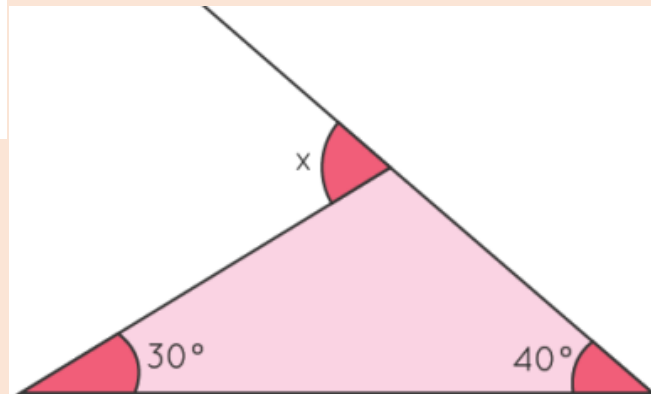
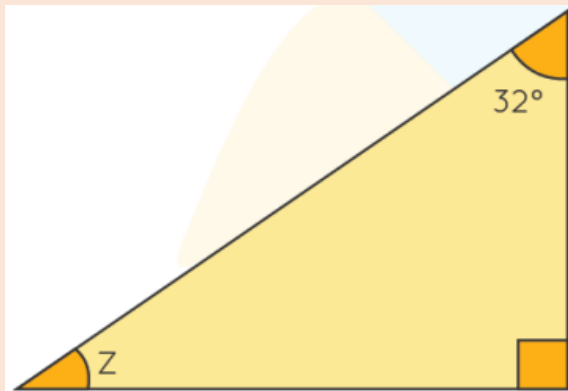
Sam says  $6\text{cm} + 4\text{cm}$  is equal to  $C + A$  on the shape here.  
True or False? Explain.

30.09.26

TBAT: find missing lengths and angles.



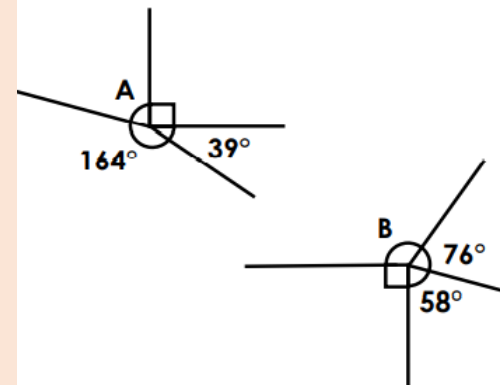
A =  
B =  
C =  
D =  
E =  
F =  
X =  
Z =



RP – Sam has drawn a circle and measured a  $70^\circ$  acute angle. What would the other reflex angle be to complete the circle?

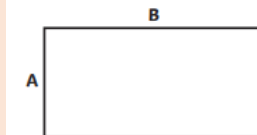
### Challenge

Calculate the missing angles.



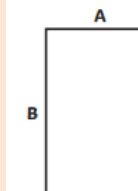
### Mastery with Greater Depth

Work out the missing lengths of these rectangles.



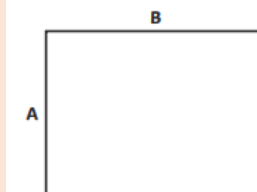
- The perimeter is 12cm.
- A is 2cm shorter than B.

Length A =  
Length B =



- The perimeter is 10m.
- B is longer than A.

Length A =  
Length B =



- The perimeter is 14cm.
- One of the sides is a square number.

Length A =  
Length B =

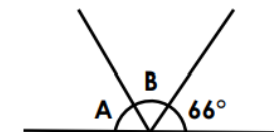
### Mastery Challenge

Dean has been calculating angles.

He says,



I know that angles A and B are the same so they must each measure  $90^\circ$ .



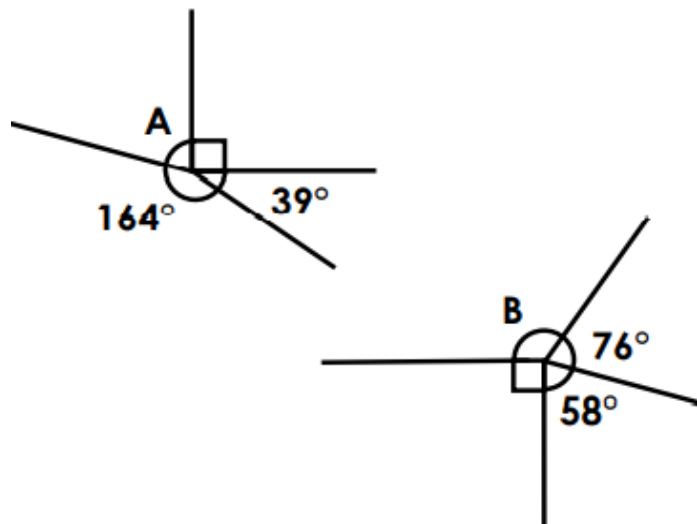
Explain his mistake.

30.09.26

## TBAT: find missing lengths and angles.

### Challenge

Calculate the missing angles.



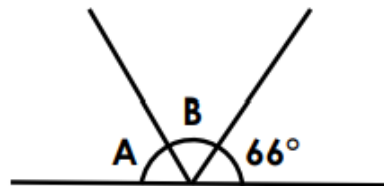
### Mastery Challenge

Dean has been calculating angles.

He says,



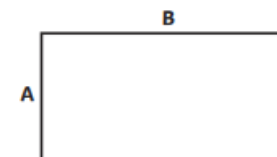
I know that angles A and B are the same so they must each measure  $90^\circ$ .



Explain his mistake.

### Mastery with Greater Depth

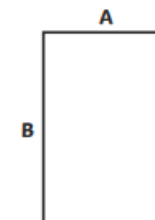
Work out the missing lengths of these rectangles.



- The perimeter is 12cm.
- A is 2cm shorter than B.

Length A =

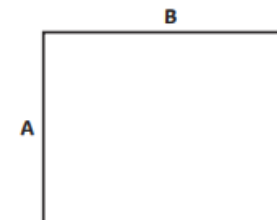
Length B =



- The perimeter is 10m.
- B is longer than A.

Length A =

Length B =



- The perimeter is 14cm.
- One of the sides is a square number.

Length A =

Length B =

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

2 in 2

Tick one box in each row to show whether the sentence is written in **Standard** or **non-Standard English**.

| Sentence                                     | Standard English | Non-Standard English |
|----------------------------------------------|------------------|----------------------|
| “You haven’t done a bad job!” she told us.   |                  |                      |
| “You ain’t done a bad job!” she told us.     |                  |                      |
| “You’ve done an excellent job!” she told us. |                  |                      |
| “You done an excellent job!” she told us.    |                  |                      |

Which sentence is the most **formal**?

Tick **one**.

We’d appreciate it if you could put your litter in the bin outside.

☐

Please pick up your litter and put it in the bin.

☐

We request that you put any litter in the bins provided.

☐

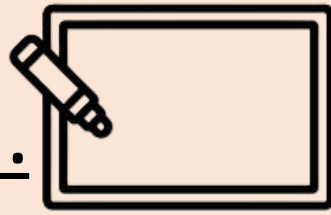
Don’t forget – litter goes in the bin!

☐

**Challenge – How many time adverbials can you think of?**

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.



**Which of these is NOT a feature of a diary entry?**

A) Past tense

B) Time adverbials

C) Formal vocabulary

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

**29th July 1988**

Dear Diary,

Today has been the strangest and most frightening day of my life.

This morning, I woke up to a terrible howling that grew into a fearful crescendo of screeching. At first, I was confused and didn't know where I was. As I looked around, I realised I was lying on a beach. The sand stretched out before me and thick forest stood behind me. Then I spotted Stella prancing happily about in the shallows. I was relieved to see she was safe, but when I struggled to my feet, I felt weak all over. The sea was completely empty. There was no sign of the *Peggy Sue*, Mum or Dad. As the reality of my situation sank in, I felt scared, lonely and confused.

**Can you recall  
the features we  
included in our  
opening  
paragraph on  
Friday?**

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

| Events                                                                                                                                           | Vocabulary / Phrases                        | Grammar                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Today has been the worst day ever.</li><li>• This morning, I woke up to horrendous screeching.</li></ul> | Horrendous, cacophony, screeching, howling, | Exaggeration – worst day ever.<br>Present perfect tense<br>Time adverbial |
|                                                                                                                                                  |                                             |                                                                           |
|                                                                                                                                                  |                                             |                                                                           |

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

Later, I decided to go through the forest and climb the hill in the hope of spotting a boat or someone who could help us. Stella followed closely behind me as we made our way along a narrow track. The forest was alive with creatures. Birds screeched overhead and strange howls echoed through the trees.

**What events are in this paragraph?**

Although the sounds were unsettling, it was the feeling of being watched that frightened me most. Everywhere I went, I felt as though hundreds of curious eyes were following my every move. When I finally reached the top of the hill and looked around, my heart sank. There was nothing but sea in every direction. I could see no boats and there was no sign of human life anywhere on the island. I realised just how alone I really was.

**What features have been included?**

**What ambitious vocabulary has been used?**

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

| Events                                                                                                                                           | Vocabulary / Phrases                        | Grammar                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Today has been the worst day ever.</li><li>• This morning, I woke up to horrendous screeching.</li></ul> | Horrendous, cacophony, screeching, howling, | Exaggeration – worst day ever.<br>Present perfect tense<br>Time adverbial |
|                                                                                                                                                  |                                             |                                                                           |
|                                                                                                                                                  |                                             |                                                                           |

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

The rest of the day was spent searching for food and water. I tried to stay hopeful, telling myself that if the animals could live here, then so could I. However, every search ended in disappointment. I found fruit hanging high in the trees and empty coconuts scattered on the ground, but nothing I could eat. I looked everywhere for a stream or river but found no fresh water. The heat made me desperately thirsty and exhausted. By evening, Stella and I could barely continue. We had found nothing to eat and nothing to drink. As darkness began to fall, I found a small cave on the beach where we could rest. I lay down feeling hungry, thirsty and worried about what tomorrow might bring. Even so, I was grateful that Stella was beside me. Without her, I don't think I could have faced this terrible day alone.

**Michael**

**What events are in this paragraph?**

**What features have been included?**

**What ambitious vocabulary has been used?**

Wednesday 30th September

TBAT: plan a diary entry from the perspective of Michael.

| Events                                                                                                                                           | Vocabulary / Phrases                        | Grammar                                                                   |
|--------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------|---------------------------------------------------------------------------|
| <ul style="list-style-type: none"><li>• Today has been the worst day ever.</li><li>• This morning, I woke up to horrendous screeching.</li></ul> | Horrendous, cacophony, screeching, howling, | Exaggeration – worst day ever.<br>Present perfect tense<br>Time adverbial |
|                                                                                                                                                  |                                             |                                                                           |
|                                                                                                                                                  |                                             |                                                                           |

**Challenge – Improve a sentence from your opening using ambitious vocabulary.**

Wednesday 30th September

KQ – Can I describe how a murti may be used in Puja?

Starter Quiz

1 Brahman is known as ... (Tick 1 correct answer)

- ☐ the Supreme Teacher
- ☐ the Ultimate Reality
- ☐ the Eternal Guide

2 What sound is considered important and sacred in Hindu Dharma? (Tick 1 correct answer)

- ☐ hum
- ☐ aum
- ☐ lum

3 What is the purpose of lighting a diva lamp during puja? (Tick 1 correct answer)

- ☐ to brighten the room
- ☐ to heat up the mandir
- ☐ to symbolise the presence of light over darkness

4 What kinds of items are typically offered during puja? (Tick 1 correct answer)

- ☐ food, flowers and incense
- ☐ money, clothes and aftershave
- ☐ musical instruments, perfume and chimes

5 Where does puja take place? (Tick 1 correct answer)

- ☐ home or mandir
- ☐ home or mosque
- ☐ home or gurdwara

# Keywords

deity

a god or goddess

murti

a physical representation of a deity, usually a statue

quality

a special characteristic of someone or something

puja

rituals of worship performed by Hindus

Many Hindus believe in one God, Brahman.

Brahman can take many forms, called **deities**.

**Murtis** are usually statues that represent **deities**. You can find these in mandirs.

Some Hindus keep **murtis** at home in a shrine.



Here is an example of a **murti** in a mandir.

What can you see?

What links can you make with what you know?

This **murti** represents the **deity**, Ganesha.

The **murti** symbolises **qualities** of Brahman, shown in the design of the **murti**.

## Why might a Hindu use a different murti in puja?



Small eyes symbolise concentration on gaining wisdom.

The axe symbolises cutting through obstacles in life and things that hold people back.

Large ears show how wise people keep an open mind and listen.

Fruit has been left to show devotion to Ganesha.

**Murtis** are often used to focus the mind during prayer.

Devotees may offer food, flowers, incense and prayers to the **murti**.



Jun



Prayer and meditation are often conducted in front of the **murti**.



Izzy

Hindus may choose different **murtis** depending on what they are praying for. This is because each **deity** shows a different **quality** of the one God, Brahman.

Some Hindus might pray for wisdom to help them in school.



Jacob

Others might pray for protection to keep their family safe.



Aisha

Why might a Hindu use a different **murti** during **puja**?

- a** Each **murti** represents a **deity** and focuses on a specific **quality**, like wisdom or protection. ✓
- b** Each **murti** is for a different day of the week.
- c** Hindus all have the same **murti** in their **puja**.

## Why might a Hindu use a different murti in puja?

Most Hindus believe Ganesha is a **deity** that helps remove obstacles and bring success.



This a different **murti** of Ganesha.

Many Hindus pray to Ganesha at the start of new ventures, like a new school year, or a journey.

Most Hindus believe Lakshmi is a **deity** that is linked to wealth and prosperity.



This a **murti** of Lakshmi.

Many Hindus like to pray to Lakshmi during Diwali. They ask for blessings of wealth and abundance in their homes and lives.

Most Hindus believe Saraswati is the **deity** of knowledge, music and the arts.



This a **murti** of Saraswati.

Some Hindus like to pray to Saraswati when learning new things, for help with playing instruments and before exams. They ask for wisdom, focus and success.

## True or false?

Most Hindus should pray to Ganesha for wisdom or when they need help with their studies.



True



False



Why?

Some Hindus pray to Ganesha for removing obstacles. Saraswati is the **deity** associated with wisdom and knowledge.



Jacob

Vivaan is a Hindu and is starting a new school. He's feeling nervous about making friends and adjusting to his new environment.

Prisha is a Hindu and has an important exam coming up. She wants help focusing and doing well in her studies.



Aisha

Explain which **murti** of a **deity** Vivaan and Prisha might choose to perform **puja** to. Which **quality** of Brahman might they connect with?

For some Hindus, focusing on one **deity** through a specific **murti** helps them connect with **qualities** of Brahman that feel meaningful in their lives. Hearing from different Hindus can help us understand more about Hindu worldviews.

Dhanu, Het and Kavita are going to share how **puja** is personal to them.



Dhanu



Het



Kavita



Dhanu at home

I do **puja** twice a day. Once in the morning and once in the evening. The **deity** I feel is most meaningful in my life is Ram (Rama).

I ask for help in making good choices and how I can do my best by my family and others.

I believe and have faith he will help me and guide me through the right path in my life.



**murti** of Ram

Some Hindus focus their **puja** towards Ram (Rama) because he represents **qualities** of courage, duty, compassion and honesty.

Ram is seen as a symbol of doing what is right and being a loyal family member.

## True or false?

Hindus pray to Ram (Rama) mainly for wealth and good fortune.

**T** True

**F** False



Why?

Prayers to Ram are for guidance in making good choices, not for wealth.



Het at home

I **puja** to Hanuman every morning before school. I ask for strength and focus for my day ahead. He gives me courage and helps me face challenges with confidence.

I trust that Hanuman will protect me and lead me on the right path, helping me grow into a better person for myself and my family.



**murti** of Hanuman

Some Hindus focus their **puja** towards Hanuman because he represents **qualities** of strength, devotion and courage.

Hanuman is seen as a symbol of loyalty, selfless service and protection, always ready to help those in need.



Why does Het pray to Hanuman every morning?

**a**

to ask for wealth and good fortune for the day ahead

**b**

to learn more about Hanuman for the day ahead

**c**

to feel strong, focused and brave for the day ahead





Kavita at home

I do **puja** with my mum in the morning before I go to school. I pray to Radha because she makes me feel loved and happy.

I ask her to help me be kind, happy and nice to others. I know she will help me be a good person.



**murti** of Radha

Some Hindus focus their **puja** towards Radha because she represents **qualities** of love, devotion and purity.

Radha is seen as a symbol of deep love and faith, showing how to be kind and loyal, especially in relationships with others.

## Task B

How is puja personal to some Hindus?



Write three sentences about why **murtis** are important for many Hindus during **puja**.

Think about what **qualities murtis** have and how they might make a difference in the way Hindus feel or connect during **puja**.

- Many Hindus see Brahman through different **deities**.
- Many Hindus use **murtis** or images of **deities** to focus their worship.
- **Murtis** show different **qualities** of the **deity** they represent.
- **Puja** is personal to each individual.

Wednesday 30th September

KQ – Can I describe how a murti may be used in Puja?

## Your task



Jacob

Vivaan is a Hindu and is starting a new school. He's feeling nervous about making friends and adjusting to his new environment.



Aisha

Prisha is a Hindu and has an important exam coming up. She wants help focusing and doing well in her studies.

Explain which **murti** of a **deity** Vivaan and Prisha might choose to perform **puja** to.  
Which **quality** of Brahman might they connect with?



Challenge – Is Puja personal to each individual? Explain your answer in sentences.

Write three sentences about why **murtis** are important for many Hindus during **puja**.

Think about what **qualities murtis** have and how they might make a difference in the way Hindus feel or connect during **puja**.

Wednesday 30th September

KQ – Can I describe how a murti may be used in Puja?

Exit Quiz

1 A murti is understood as an aspect of ... (Tick 1 correct answer)

- ☐ Jesus
- ☐ Shiva
- ☐ Brahman

2 What does the word puja mean? (Tick 1 correct answer)

- ☐ celebrating a holiday
- ☐ honouring or offering
- ☐ eating food

3 Why might a Hindu choose a specific murti for puja? (Tick 1 correct answer)

- ☐ because it is easier to worship multiple deities at once
- ☐ to focus on specific qualities of Brahman
- ☐ to make puja shorter

4 What do Hindus worship? (Tick 1 correct answer)

- ☐ images
- ☐ no visuals
- ☐ murtis

5 Match each deity to what they are commonly prayed to for by Hindu people. (Write the correct letter in each box)

|   |           |
|---|-----------|
| a | Saraswati |
| b | Lakshmi   |
| c | Ganesha   |

|  |                                    |
|--|------------------------------------|
|  | removing obstacles in new ventures |
|  | wealth and prosperity              |
|  | success and wisdom in studies      |

Wednesday 30th September  
KQ – How are nutrients and water transported within humans?

Quick Quiz

- 1. The function of the \_\_\_\_\_ is to pump blood around the body.
- 2. The average heart is the size of a clenched human \_\_\_\_\_.
- 3. The tubes carrying blood around the body are called blood \_\_\_\_\_.
- 4. Veins are blood vessels that return blood low in \_\_\_\_\_ back to the heart.
- 5. Blood that is low in oxygen is called \_\_\_\_\_ blood.

Match the parts of the human body to the statement.

|   |          |
|---|----------|
| a | heart    |
| b | arteries |
| c | veins    |

|  |                                                       |
|--|-------------------------------------------------------|
|  | is made of different chambers with a muscle wall      |
|  | carry deoxygenated blood back to the heart            |
|  | carry oxygenated blood from the heart around the body |

# Keywords

nutrients

Nutrients are important substances that living things use to stay alive and healthy.

digest

When we digest food it is broken down so that nutrients can be used by the body.

intestine

The intestine is a long tube that is split into the small and large intestine, through which food travels from the stomach and out of the body while it is being digested.

bloodstream

Bloodstream is the flow or movement of blood throughout the body.

model

A model is used to describe something that can't be experienced directly.

The food we eat contains many different **nutrients**.

Nutrients have different purposes and come from different foods.

Do you know the names of any nutrients and which foods they come from?



eating food

Jacob and Alex find out about **nutrients** and the job they do in the human body.



Jacob

Alex

Vitamins are nutrients in food. Some vitamins help to fight infections and others help you to grow and develop.



orange juice

Fibre is an important nutrient that can help food move through your digestive system.



wheat and bread

toast



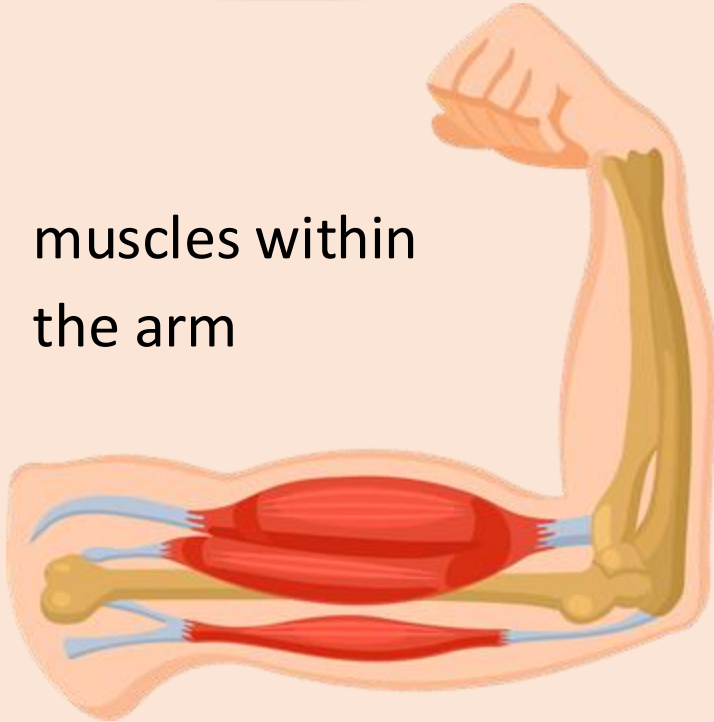
Carbohydrates are **nutrients** in foods such as bread and pasta, that provide energy.

eggs



Proteins are nutrients in food such as eggs, that help the body grow and repair.

muscles within  
the arm



Minerals are **nutrients** in food that help to strengthen bones and organs.

pizza



Fats are nutrients that provide energy for the body and help to absorb vitamins.

water



Water is an essential nutrient for hydration.

## True or false?

Nutrients have different purposes and come from different foods.

**T** True 

**F** False

## Justify your answer

**a**

All nutrients support the same functions in our body, so we only need to eat one type of food.

**b**

Different nutrients support different functions in our body, so we need a balanced diet.

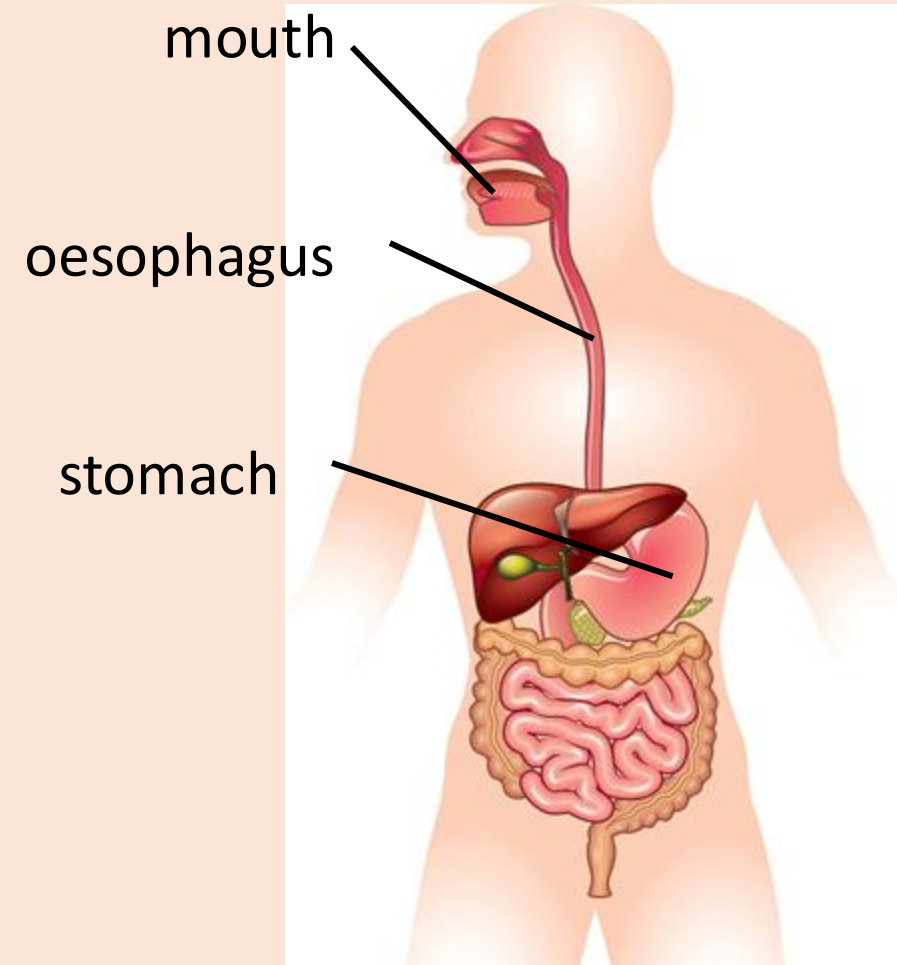


Food is broken down into smaller pieces in the mouth. It then moves down the oesophagus into the stomach.

So, **nutrients** from food do not pass into blood from the stomach. It must happen somewhere else in the body.  
Do you know?



Alex



human digestive system

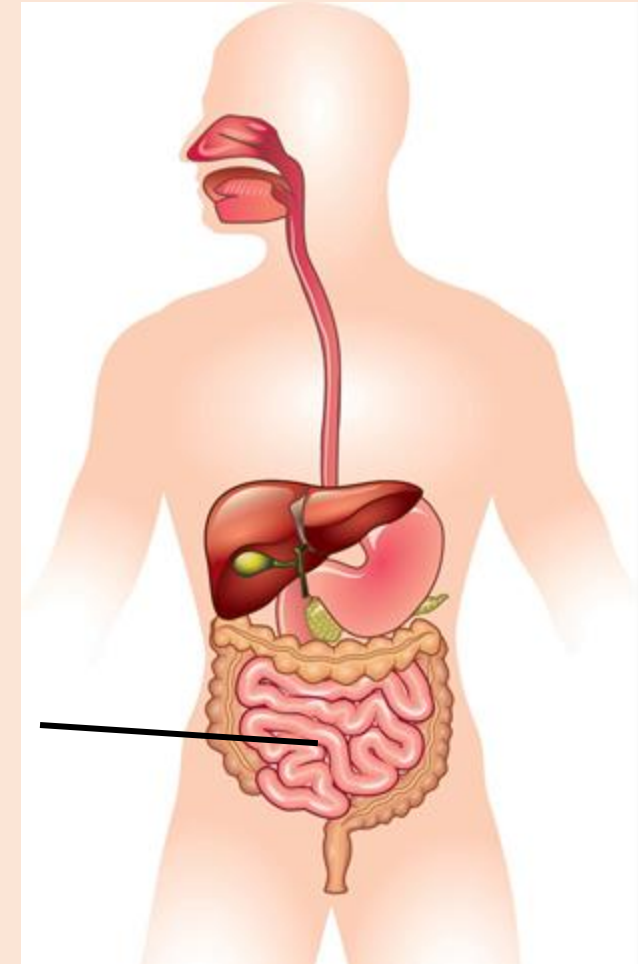
During digestion, the small **intestine** absorbs the **nutrients** from food and passes them into the **bloodstream**.



Jacob

Our bodies break down nutrients from food to help us to stay alive. I know that this happens in the small intestine.

small intestine



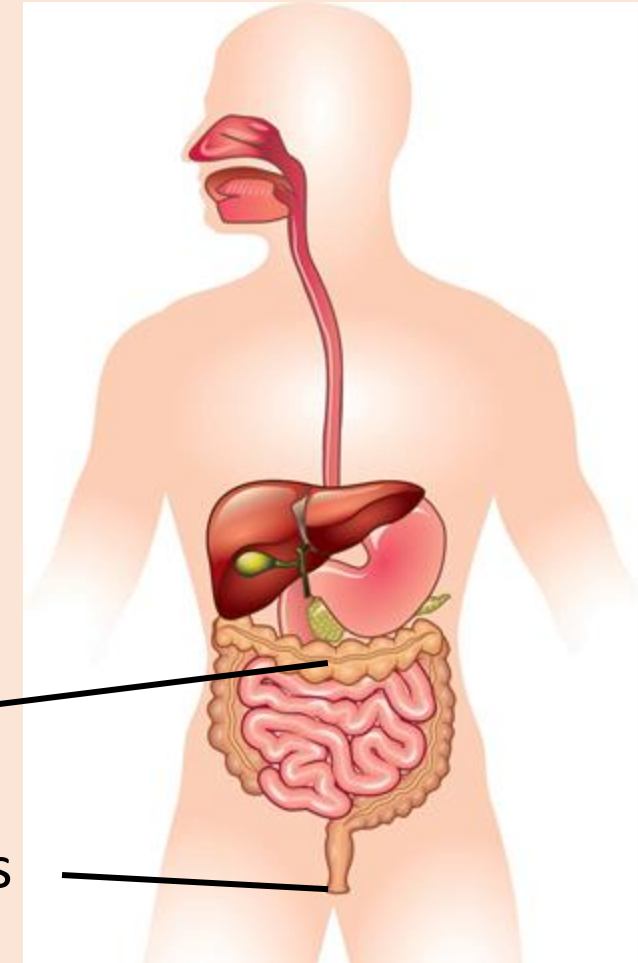
human digestive system

The digestive system does not end once **nutrients** from food have entered the bloodstream.

The large **intestine** absorbs water from undigested food, which helps to form solid waste for the body to get rid of as faeces through the anus.

large intestine

anus



human digestive system



blood in the bloodstream travelling  
through the body

Our blood absorbs water and **nutrients** from food. This travels, along with oxygen, to different parts of the body through blood vessels.

Our muscles use the nutrients and oxygen all the time, even more so when we are active.

Water and nutrients from food are transported in your ...

**a**

blood.



**b**

waste.

**c**

hair.

How are water and nutrients transported in blood around the human body?

**a**

in microscopic boats or rafts

**b**

through blood vessels



**c**

through valves

**d**

soaked up in mini sponges

# Summary

How nutrients and water are transported within humans

Nutrients have different purposes and come from different foods.

A healthy diet is essential for maintaining the nutrients our body needs to function properly.

During digestion, your small intestine absorbs the nutrients from your food and passes them into the bloodstream.

Water and nutrients from food are transported in blood around the body to where they are needed.

Models can be used to help us to learn about how science works.

Wednesday 30th September

KQ – How are nutrients and water transported within humans?

Research different nutrients and complete the table to better understand the job they do and where we get them from.

| Nutrient      | Which foods do we find them in? | What role does it have in the body? |
|---------------|---------------------------------|-------------------------------------|
| carbohydrates | Bread, pasta ...                |                                     |
| proteins      |                                 |                                     |
| vitamins      |                                 |                                     |
| fats          |                                 | Provides energy for the body.       |
| fibre         | Nuts, seeds, grain ...          |                                     |
| water         |                                 |                                     |
| minerals      |                                 | Strengthens bones and organs.       |

Design a model using all or some of these resources to represent the digestive system at work.



bowl



jug



tights



banana



plate



masher

Challenge  
Explain **why balance** is important and what might happen if we had **too much or too little** of each.

Mastery  
Compare and contrast two different nutrients (e.g. protein vs carbohydrate). How are they different?

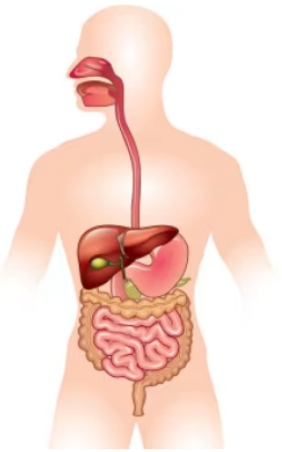
# Wednesday 30th September

## KQ – How are nutrients and water transported within humans?

### Exit Quiz

1. What are nutrients? Tick 2 correct answers
- Parts of food that help us to breathe.
  - Important substances that living things use to stay alive and healthy.
  - Components in food that are used by the body to function properly.
  - Natural things we find in our body used by the brain.
2. The part of the digestive system that helps to transfer nutrients into the bloodstream is \_\_\_\_\_.
3. Water and nutrients from food are transported in \_\_\_\_\_ around the body to where they are needed.

Place this process in order starting with 'Food enters the mouth and travels down the oesophagus.' Use numbers to show the correct order



|  |                                                                                  |
|--|----------------------------------------------------------------------------------|
|  | Food is broken down further in the stomach and passed to the small intestine.    |
|  | The blood travels through blood vessels so the body can use nutrients from food. |
|  | Food enters the mouth and travels down the oesophagus.                           |
|  | The small intestine transfers nutrients from food to the bloodstream.            |

### Challenge

Match these nutrients to the foods we find them in. Write the correct letter in each box

|   |               |
|---|---------------|
| a | fats          |
| b | carbohydrates |
| c | proteins      |
| d | fibre         |
| e | vitamins      |

|  |                                                      |
|--|------------------------------------------------------|
|  | cereal, bread, beans, lentils, fruit, and vegetables |
|  | cereals, bread, pasta, rice, and potatoes            |
|  | dairy, fruit, and vegetables                         |
|  | fish, meat, and eggs                                 |
|  | butter, oil, and nuts                                |

Create a model to demonstrate how the small and large intestine allows nutrients and water to be absorbed and pass into the bloodstream.

- I used a food masher to break the food up, adding some water to help transport it.
- I poured the contents into tights, which represent the small and large intestine.
- I squeezed the tights over a plate to show how water and nutrients pass through the intestine into the bloodstream.



breaking up  
food



intestines



water and  
nutrients in the  
body

Wednesday 30th September

KQ: What are legal and illegal drugs?

What is a **drug**?

# Definition of a drug

The United Nations Office on Drugs and Crime defines a **drug** as:

*'A **substance** people take to change the way they feel, think or behave.'*

The term 'drugs' can refer to all drugs:

- All **illegal** drugs
- All **legal** drugs, including alcohol, tobacco and volatile substance (those giving off a gas which can be inhaled)
- All over-the-counter and prescription medicines

# Drug & alcohol education: Managing risk: legal and illegal drugs Learning Objectives

**By the end of this lesson, you will be able to:**

**Key vocabulary:**

Drug, substance, effects,  
risks, law, legal, illegal,  
habit, advice, support



- **Explain** that there are **risks** associated with using any type of **drug** and identify some of the risks and **effects** of **drug** use
- **Recognise** that **drugs** have **laws** related to them and that some **drugs** are **illegal** to own, use or give to others
- **Analyse** the level of **risk** in different situations, identifying that **drugs** can affect people in different ways
- **Explain** that for some people **drug** use can become an unhealthy **habit** that can be difficult to break but there is **support** available to help people; where to report any concerns they have

# Fact check activity

Using the fact sheets, check your answers.

## Class discussion:

What did you find out?

Do different drugs have similar risks?

Were you surprised by any of the risks of drugs you found out about?

Resource 3: Pupil fact sheets

**E-cigarettes (Vapes)**

Using an e-cigarette is known as vaping. An e-cigarette is a device that allows someone to inhale vapour (rather than smoke). They work by heating a liquid that contains chemicals and some (but not all) contain nicotine. There are different types: some look like cigarettes, a small tube or pen and others are small pots of liquid.

|                                                                                                                                                             |                                                                                                                                                     |                                                                                                                                 |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Effects</b></p> <ul style="list-style-type: none"> <li>E-cigarettes often contain nicotine which raises blood pressure and increases heart</li> </ul> | <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>E-cigarettes are not risk free, and more research is needed to understand any</li> </ul> | <p><b>Laws</b></p> <ul style="list-style-type: none"> <li>Someone must be aged 18 years and over to buy e-cigarettes</li> </ul> |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|

Resource 3: Pupil fact sheets

**MDMA (Ecstasy)**

An illegal drug that usually comes in pills or tablets, a powder or white / grey crystals. It is swallowed, dabbed onto gums or sometimes snorted through the nose.

|                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                 |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Effects</b></p> <ul style="list-style-type: none"> <li>Can make people feel happy and chatty, energised and alert</li> <li>Can make people feel confident and sociable</li> <li>Feelings and surroundings, or music, or colours</li> </ul> | <p><b>Laws</b></p> <ul style="list-style-type: none"> <li>MDMA is illegal to have, give away or sell (class A)</li> <li>Possessing MDMA can mean up to 7 years in prison, an unlimited fine or both, and a criminal record*</li> <li>Supplying (selling or giving away) MDMA, even to friends, can mean life in prison, an unlimited</li> </ul> |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Resource 3: Pupil fact sheets

**Tobacco (cigarettes, shisha)**

Tobacco is a plant. The leaves are dried and shredded and sold as factory-made cigarettes, rolled tobacco (roll-ups) or shisha which is smoked through a water pipe (hookah). The drug in tobacco is nicotine, but cigarettes also contain other chemicals that harm the body.

|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Risks</b></p> <ul style="list-style-type: none"> <li>Sickness and dizziness (particularly for first time smokers)</li> <li>Breath, hair and clothes smell</li> <li>Nicotine in tobacco is addictive</li> <li>Increased anxiety, tension, irritability and possibly depression over time</li> <li>Tar in tobacco smoke can lead to stained teeth and nails</li> <li>Stops oxygen getting to the skin which can lead to a dull complexion and premature ageing (wrinkles)</li> <li>Tobacco smoke contains harmful chemicals which damage most of the body's organs and can lead to long term or life threatening disease (such as lung disease, heart disease, diabetes and different types of cancer)</li> </ul> | <ul style="list-style-type: none"> <li>Second-hand smoke means other people are also at risk of these diseases (particularly children as they have less developed lungs, airways and immune systems).</li> <li>Causes weak and brittle bones (arthritis)</li> <li>Reduces fertility (ability to make a baby) in both men and women</li> <li>If a pregnant woman smokes it can harm the unborn baby</li> <li>If Shisha is smoked, more smoke is inhaled (so, smoking shisha for 20- minutes is equivalent to smoking approximately 25 cigarettes)</li> <li>Risk of accidental fire</li> </ul> |
| <p><b>Effects</b></p> <ul style="list-style-type: none"> <li>Contains nicotine which raises heart rate and blood pressure</li> <li>Many smokers believe that smoking helps them relax but nicotine interferes with the chemicals in the brain meaning when they haven't smoked for a while they have a craving to do so. They may feel irritable and anxious until they can smoke. These feelings are temporarily relieved when they smoke again</li> </ul>                                                                                                                                                                                                                                                           | <p><b>Laws</b></p> <ul style="list-style-type: none"> <li>It is illegal to smoke in all public enclosed areas and workplaces (including restaurants, bars and pubs or vehicles used for work purposes)</li> <li>Smoking in a car with someone under the age of 18 is against the law*</li> <li>It is illegal for shops to sell cigarettes to anyone under the age of 18</li> <li>It is illegal for an adult to buy cigarettes for someone under the age of 18</li> </ul> <p><small>*Not currently illegal in Northern Ireland</small></p>                                                    |

References: [www.talktofrank.com](http://www.talktofrank.com) [www.nhs.uk/Smokefree](http://www.nhs.uk/Smokefree) [www.nhs.uk/live-well](http://www.nhs.uk/live-well)

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# Tobacco (cigarettes, shisha)

Tobacco is a plant. The leaves are dried and shredded and sold as factory-made cigarettes, rolled tobacco (roll-ups) or shisha which is smoked through a water pipe (hookah). The drug in tobacco is nicotine, but cigarettes also contain other chemicals that harm the body.

## Risks

- Sickness and dizziness (particularly for first time smokers)
- Breath, hair and clothes smell
- Nicotine in tobacco is addictive
- Increased anxiety, tension, irritability and possibly depression over time
- Tar in tobacco smoke can lead to stained teeth and nails
- Stops oxygen getting to the skin which can lead to a dull complexion and premature ageing (wrinkles)
- Tobacco smoke contains harmful chemicals which damage most of the body's organs and can lead to long term or life threatening disease (such as lung disease, heart disease, diabetes and different types of cancer)
- Second-hand smoke means other people are also at risk of these diseases (particularly children as they have less developed lungs, airways and immune systems).
- Causes weak and brittle bones (arthritis)
- Reduces fertility (ability to make a baby) in both men and women
- If a pregnant woman smokes it can harm the unborn baby
- If Shisha is smoked, more smoke is inhaled (so, smoking shisha for 20-minutes is equivalent to smoking approximately 25 cigarettes)
- Risk of accidental fire

## Effects

- Contains nicotine which raises heart rate and blood pressure
- Many smokers believe that smoking helps them relax but nicotine interferes with the chemicals in the brain meaning when they haven't smoked for a while they have a craving to do so. They may feel irritable and anxious until they can smoke. These feelings are temporarily relieved when they smoke again

## Laws

- It is illegal to smoke in all public enclosed areas and workplaces (including restaurants, bars and pubs or vehicles used for work purposes)
- Smoking in a car with someone under the age of 18 is against the law\*
- It is illegal for shops to sell cigarettes to anyone under the age of 18
- It is illegal for an adult to buy cigarettes for someone under the age of 18

*\*Not currently illegal in Northern Ireland*

# E-cigarettes (Vapes)

Using an e-cigarette is known as vaping. An e-cigarette is a device that allows someone to inhale vapour (rather than smoke). They work by heating a liquid that contains chemicals and some (but not all) contain nicotine. There are different types: some look like cigarettes, a small tube or pen and others are small pots of liquid.

## Effects

- E-cigarettes often contain nicotine which raises blood pressure and increases heart rate
- When nicotine enters the body it can make people feel relaxed and calm, or increase alertness depending upon how the person is feeling beforehand
- Cravings for nicotine can make someone feel anxious or irritable
- When combined with face-to-face support from a smoking cessation or medical professional, e-cigarettes or vaping can help people to quit smoking – by helping people to manage and reduce the amount of nicotine they are taking in.
- There is currently no evidence that vaping causes harm to others (like second-hand smoke from cigarettes).

## Risks

- E-cigarettes are not risk free, and more research is needed to understand any potential long-term harms, but use carries less risk than smoking cigarettes
- Although e-cigarettes don't contain tobacco or produce carbon monoxide (two of the most damaging elements in tobacco smoke) the liquid and vapour do contain potentially harmful chemicals (although in much lower levels than cigarettes).
- E-cigarettes contain nicotine which is addictive and causes a craving for the user to smoke more
- E-cigarettes must be used with care (such as using the correct charger) to ensure they do not pose an increased risk of causing fire

## Laws

- Someone must be aged 18 years and over to buy e-cigarettes
- It's illegal for an adult to buy e-cigarettes for someone under the age of 18
- Vaping is not allowed on buses, planes, trains or at train stations
- It is up to the owner of other public places to decide if vaping is allowed (for example in bars, restaurants or cafes)

# MDMA (Ecstasy)

An illegal drug that usually comes in pills or tablets, a powder or white / grey crystals. It is swallowed, dabbed onto gums or sometimes snorted through the nose.

## Effects

- Can make people feel happy and chatty, energised and alert
- Can make people feel confident and sociable
- Feelings and surroundings, or music, or colours can become more intense
- Raises body temperature
- Increases heart rate
- Some people feel tingles or tightening of muscles

## Laws

- MDMA is illegal to have, give away or sell (class A)
- Possessing MDMA can mean up to 7 years in prison, an unlimited fine or both, and a criminal record\*
- Supplying (selling or giving away) MDMA, even to friends, can mean life in prison, an unlimited fine or both
- Driving after using MDMA is illegal and can lead to a fine, driving ban or prison

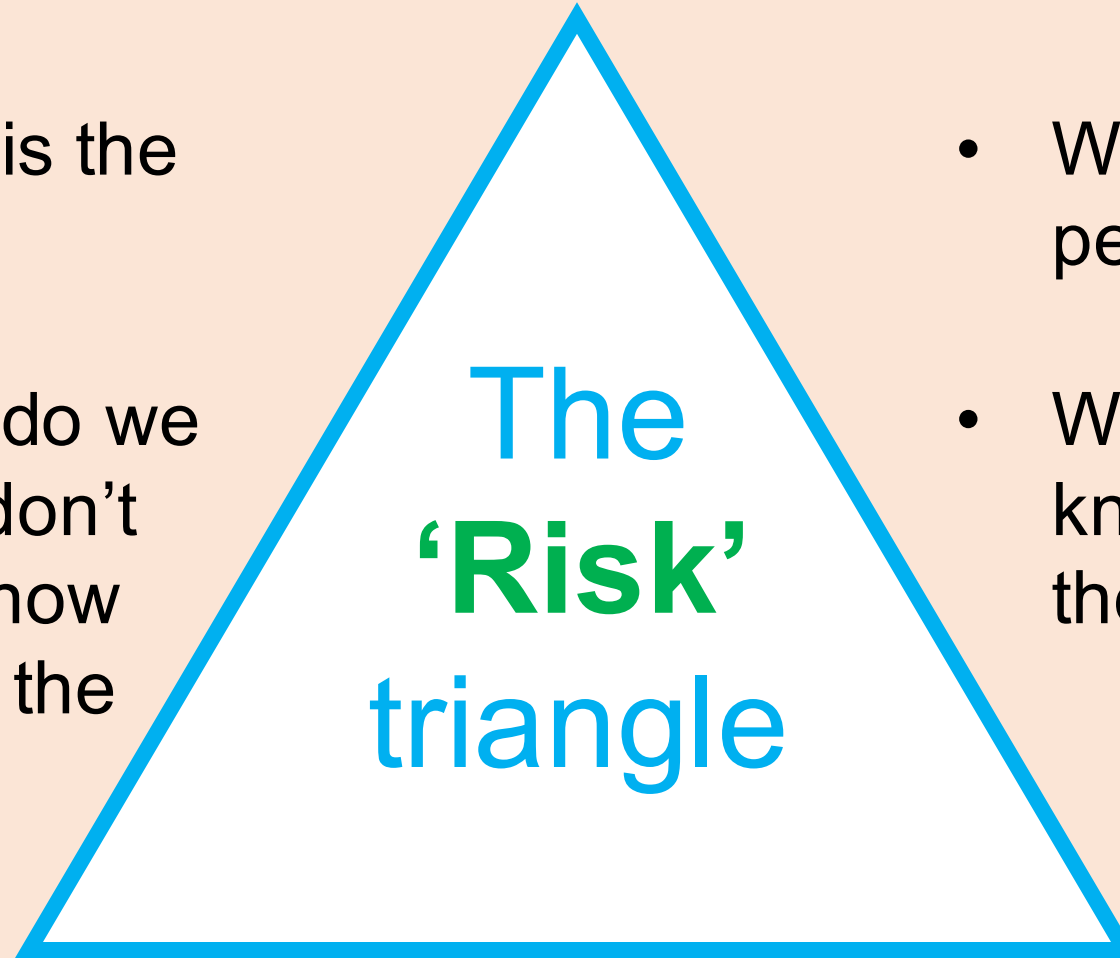
*\*Having a criminal record can affect a person's ability to apply for certain jobs or travel to different countries, such as United States of America (USA).*

## Risks

- Difficult to know what is in the drug — it may be 'mixed' with other dangerous drugs or chemicals
- Difficult to know how strong the drug is or how much the drug will affect someone
- Sickness
- Can cause anxiety, confusion, panic or paranoia
- Body dangerously overheats or dehydrates — can be fatal
- This can also lead to accidents where people try to cool down or drink too much water to rehydrate
- Liver, kidney and heart problems (people with asthma, epilepsy or heart conditions can have a dangerous reaction)
- People can become dependent or want to take more to get more of a 'buzz'
- Long term use, when used in higher amounts can cause memory problems or depression
- Increased chance of colds and sore throats
- Injury or accidents — dangerous to drive or operate machinery after using MDMA

# Drugs risk scenarios

- What is the **drug**?
- What do we (and don't we) know about the **drug**?

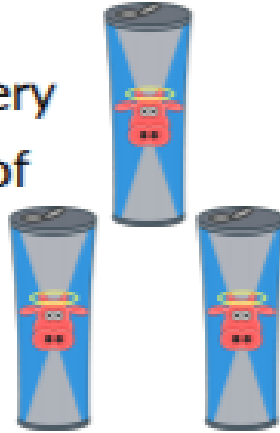


- Who is the person?
- What do we know about them?

- What is the situation they are in?

# Drugs risk scenarios

Mo, 14, skips breakfast every day and drinks three cans of energy drinks on the way to school instead.



Jim, 51, drinks four pints of beer most days of the week.



Indie, 15, is having meal with their family to celebrate Gran's birthday. Indie's mum says that Indie can have a small glass of wine.



## **Your task:**

Working in pairs, read the scenarios to complete the risk triangle sheet.

# Drug & alcohol education: Managing risk: legal and illegal drugs Learning Objectives

**By the end of this lesson, you will be able to:**

**Key vocabulary:**

Drug, substance, effects,  
risks, law, legal, illegal,  
habit, advice, support



- **Explain** that there are **risks** associated with using any type of **drug** and identify some of the risks and **effects** of **drug** use
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- **Analyse** the level of **risk** in different situations, identifying that **drugs** can affect people in different ways
- **Explain** that for some people **drug** use can become an unhealthy **habit** that can be difficult to break but there is **support** available to help people; where to report any concerns they have

If you want to talk to someone about today's lesson:

- Your teacher
- Your parent/carer
- One of your other trusted adults



Post a question in the box on the way out if you have further questions or would like further support

Want to know more...?  
Need some support...?

If you would like further information and **advice** about **drugs**, alcohol and smoking visit:



If you need urgent help if someone is seriously ill, scared or unsafe:



# End point assessment

Return to the baseline assessment activity you completed at the start of this lesson.

Add or amend the information, using a different coloured pen, to reflect on what you have learnt in the lesson about what the **risks** and effects of different **drugs**.

‘Drug’