



Learning Project TERM 6, WEEK 6
3 WEEK TOPIC: Burps, Bottoms and Bile
What would happen if you ate a book?

Age Range: Y3/4

Weekly Maths Tasks (Aim to do 1 per day)

ONLINE: Watch the videos from the White Rose Home Learning website below and complete the worksheets attached to this pack. This week's topic is **measures**. It is a Year 3 topic but useful revision for Year 4 as well.

The worksheets attached can be completed in line with the videos. Some of the worksheets have 3 levels (on 3 separate pages) of questions for each day so don't feel you need to complete all questions. Year 4s may wish to try the second or third page of the worksheets – the 'going deeper' sections.

Years 3 and 4:

Monday: [Week 11 Lesson 1 Measure Mass](#)

Tuesday: [Week 11 Lesson 2 Compare Mass](#)

Wednesday: [Week 11 Lesson 3 Add and Subtract Mass](#)

Thursday: [Week 11 Lesson 4 Measure Capacity](#)

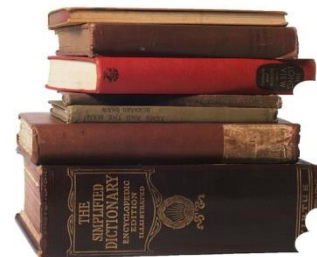
Friday **OFFLINE:** try the Maths Challenges (worksheets attached) or practise times tables!

SKILLS PRACTICE:

- **ONLINE:** Work on [Times Table Rockstars](#).
- **ONLINE:** Daily [arithmetic](#) for different areas of maths.

Weekly Reading Tasks (Aim to do 1 per day)

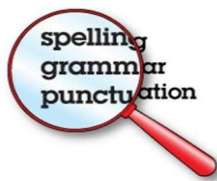
- **ONLINE:** Read the book *The Incredible Book-Eating Boy*. You can listen to it being read on [You Tube](#). Discuss these questions with someone at home, or write your thoughts in a reading journal:
 1. Henry starts by eating a single word and then a whole sentence. If you could eat any word / sentence, what would it be?
 2. Look at the backgrounds in the illustrations. What types of books might they have come from?
 3. What vocabulary could you use to describe how a book tastes? Imagine that you could eat a book about your favourite topic. Write a description of how it tastes.
 4. Watch [this video](#) from the author. Think of questions that you might like to ask if you had the chance. You could even tweet your questions to @OliverJeffers!
 5. If you liked this book, check out some of Oliver Jeffers's other books. You can hear him read many of his books on [his website](#). Which ones are your favourite? Why?
- **OFFLINE:** Why did eating books make the boy feel ill? Read the text about your digestive system and answer the questions to find out.





Weekly Spelling, Punctuation and Grammar Tasks (Aim to do 1 per day)

- **OFFLINE:** Practise the Year 3/4 Common Exception Words [see list here](#)
- **ONLINE:** Practise weekly spellings on [Spelling Shed](#).
- **ONLINE:** Revise your grammar and spelling on the BBC game [Crystal Explorers](#).
- **ONLINE:** Learn about how to write a letter at [BBC Bitesize](#). Watch the videos about using paragraphs and questions, and look at the top tips to remind yourself how to set out a letter.



Weekly Writing Tasks (Aim to do 1 per day)

Focus: Story / Letter Writing

- **ONLINE:** Listen to the story of The Incredible Book-Eating Boy on [You Tube](#). Then choose some of these writing activities:
- **OFFLINE:** Look at the examples of formal letters in this pack. Highlight examples of formal language. Make a list of the features of a formal letter. These examples are letters of complaint. How would your letter be different if you were writing to ask for advice?
- **OFFLINE:** Imagine you are Henry's parents. How do you feel about him eating lots of books? Write a formal letter to his doctor to ask their advice. There are some instructions in this pack to remind you how to set out a formal letter and some grammar activities at [BBC Bitesize](#).
- Write the doctor's reply to Henry's parents. Remember to keep your writing formal! What would they suggest? You could include some information about how the digestive system works and what a balanced diet looks like.



- **OFFLINE:** Plan and write a new story about a boy or girl who eats things that people don't normally like to eat! Remember that a story needs a beginning, a build-up, a problem and a resolution and ending.



Learning Project - to be done throughout the week

Science: How does our body digest food?

- Watch the Kids Health animation [How the Digestive System Works](#) on YouTube. Make a flowchart to show each place your food visits on its journey through your body. Then make notes on what job each part does.
- Cut out the cards in this pack and match the picture, name and function of the different parts of the digestive system. Find out more information at [DK Find Out](#). Once you have matched the cards, sort them into the correct order.
- Compare the human digestive system with animal digestive systems. Read *The Story of the Little Mole who knew it was None of his Business* by Werner Holzwarth and Wolf Erlbruch. What do you notice have the poo of different animals? Match the pictures of animal poo to a picture card of an animal. Construct a classification key for the identification of an animal by its poo. Use simple 'yes' and 'no' questions, such as 'Is it brown? Does it contain fur? Is it wet or dry?'
- Go for a walk and see if you can spot any animal poo. Can you use your classification key to help you identify it?
- Use the information cards in this pack to research and compare the digestive system of a human with that of either a cow, rabbit, lion, chicken, owl, snake, horse, fly, snail or koala. Observe the key similarities and differences in size and the number of main organs. Draw a table to compare your chosen animal's digestive system to a human's digestive system.

Note: These animals have very different digestive systems. For example, chickens have no teeth and therefore swallow small stones and grit that pass into the gizzard with the food they eat. Along with the muscular action of the gizzard, the stones grind down the food before it passes into the intestines.

Computing:

- Use a graphics program (like Paint) to design book covers for a delicious book and a disgusting book.
- Look at the different types of font shown in the book. Use a word processing program to copy and paste the same sentence and change the font in each copy. Which font is your favourite? Why? Do the fonts make each sentence look serious / funny / cute?

Spanish: practise how to talk about your family and pets in Spanish at [The Oak National Academy](#).

RE: Think about what you know about how the human body works. What do you wonder about it? Christians believe God created the human body like this. What would you want to say to God about it? Write a prayer with your thoughts.

Additional learning resources parents may wish to engage with

Author Rob Biddulph does twice weekly drawing videos for children. You can watch them and have a go at [Draw with Rob](#).

Your child may have concerns about the current situation. [Childline](#) has lots of advice about how to discuss



it with your child.

Nosy Crow Books have released a superb free book for children called Coronavirus: a book for children.

You can download and read it [here](#).



St. Giles CE Primary School
Achieving Through Adventure



The following worksheets support the activities mentioned in the pack.



| | | | |
|---|-------------------------------|-------------------------------|-------------------------------|
| | | | |
| 1) What is each interval worth on each set of scales? | Each interval is worth _____. | Each interval is worth _____. | Each interval is worth _____. |
| 2) Mark the mass shown on each set of scales. | 350g | 48g | 225kg |

A bag of flour has a mass of 2kg.

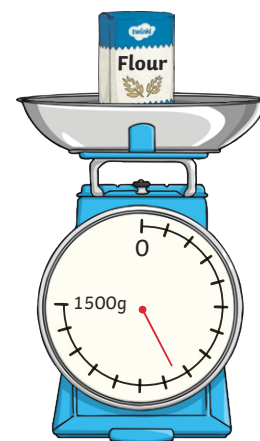


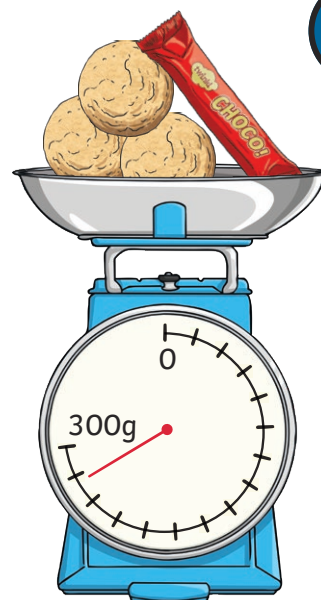
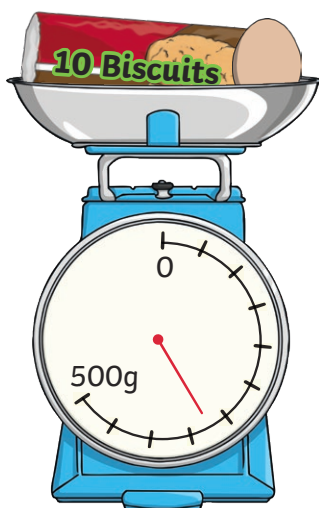
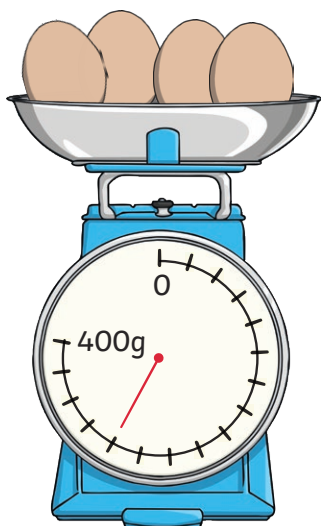
| | | | |
|--|-------------------------------|-------------------------------|-------------------------------|
| | | | |
| What is each interval worth on each set of scales? | Each interval is worth _____. | Each interval is worth _____. | Each interval is worth _____. |

The pointer shows the mass of one bag of flour on each set of scales.

1) One set is incorrect. Which set?

2) Ali says that the mass of the bag of flour on this set of scales is 800g. Do you agree? Explain your answer.





- 1) Use the information shown to work out the mass of the chocolate bar. Show your working out.

- 2) The mass of a watermelon is 1kg. How many bars of chocolate would have the same mass as one watermelon?

- 3) What other combinations of ingredients would have the same mass as one watermelon?

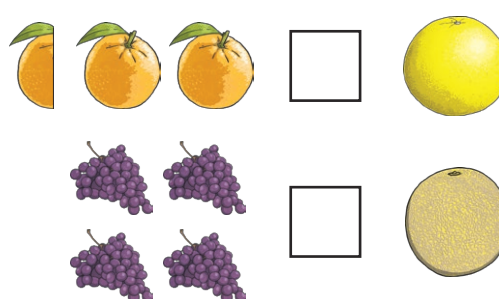
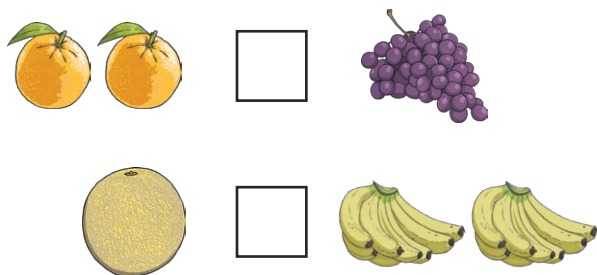
1) Sort these objects into order of mass from lightest to heaviest.



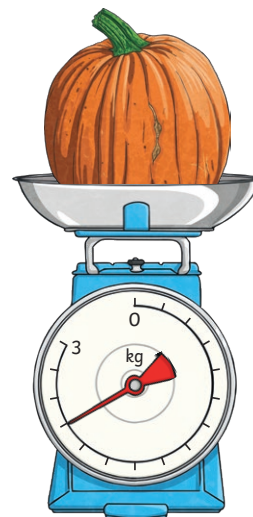
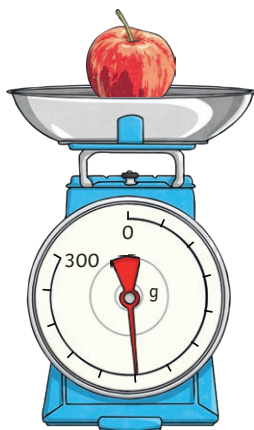
lightest

heaviest

2) Use <, > or = to compare these objects.



Tomek, Mark and Geri are weighing their shopping items.



- 1) Sort the items in order of mass from heaviest to lightest.

- 2) Look at the statements below. Which do you agree with? Explain why.

Geri says, "The bag of sprouts is heavier than the bag of potatoes because 960 is greater than 4."

Mark says, "The pumpkin weighs less than the apple because the pointer on the pumpkin scale is less than halfway but on the apple scale it is more than halfway."

Tomek says, "The apple weighs less than the bag of potatoes because 175g is less than 4kg."

- 3) Explain what is wrong with the incorrect statements.

- 1) Maria, Jemma, Ben and Graham have all been shopping. Use the clues to work out who each bag belongs to.



This bag belongs to



This bag belongs to



This bag belongs to



This bag belongs to

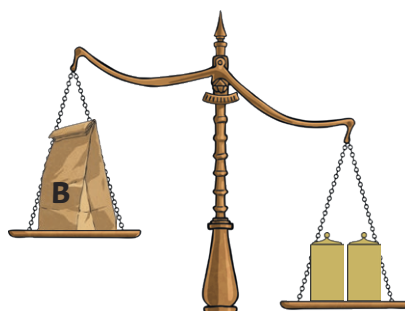
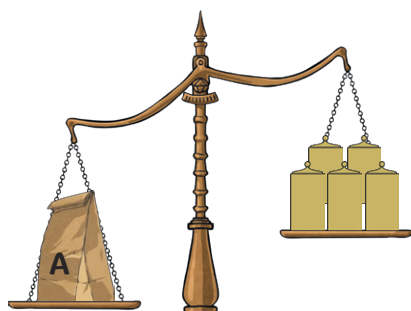
Maria's shopping bag has a mass of less than $\frac{1}{4}$ of 10kg and more than 2kg.

Jemma's shopping bag has a mass of more than 4kg but less than 6200g.

Ben's shopping bag weighs less than Jemma's but more than Maria's.

- 2) Write a clue to compare Graham's shopping bag to someone else's.

- 3) The same shopping bags are placed onto a balance with some sets of equal weights. What can you say is true about the weights?



- 4) Estimate how many weights would balance each shopping bag.

- 1) Zach the zookeeper is trying to work out how much animal food he has left in each bag.



How much food is left?



495g was used to feed the lemurs yesterday.

mass: _____.



1kg 860g was used to feed the lemurs yesterday.

mass: _____.



930g was used to feed the otters yesterday.

mass: _____.

- 2) Zach the zookeeper put all the leftover food in his wheelbarrow.
What was the total mass of food in the wheelbarrow? _____.

You will need the Animal Top Cards. Zach the zookeeper is trying to work out which animals he can transport in his truck. His truck has a maximum limit of 500kg.

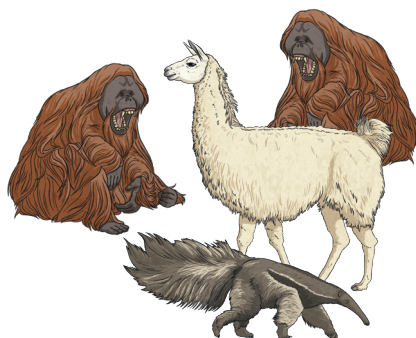


- 1) What is the total mass of the animals?
2) Can Zach transport these in his truck? (Circle the correct answer).



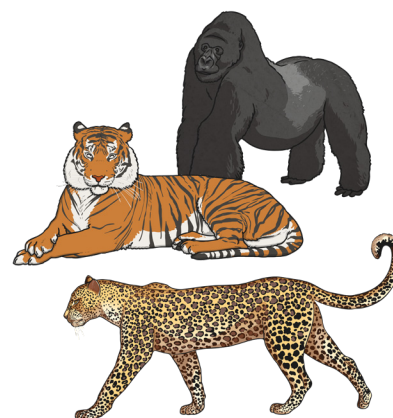
mass: _____.

yes / no



mass: _____.

yes / no



mass: _____.

yes / no

- 3) Zach's assistant says that no other animal from their zoo can travel with the camel in the truck.
Is this correct? Explain why.

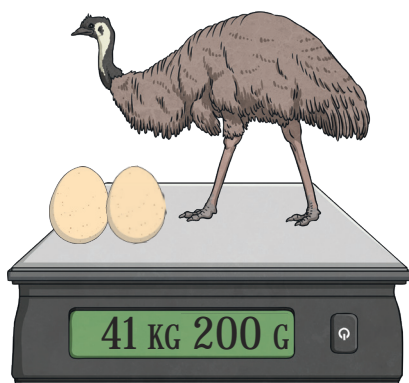
You will need the Animal Top Cards. Use the information on the cards to work out the mass of each mother's baby.



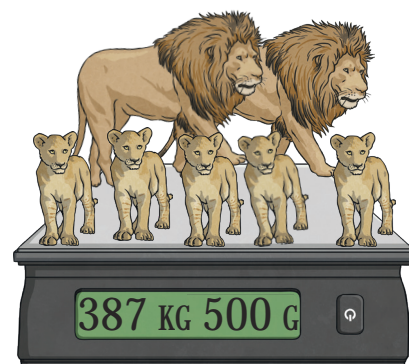
- 1) What is the mass of one baby?



mass: _____.



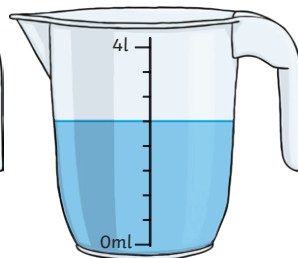
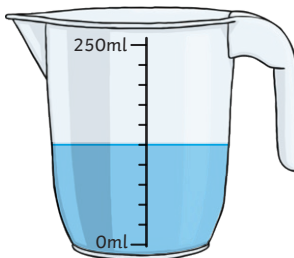
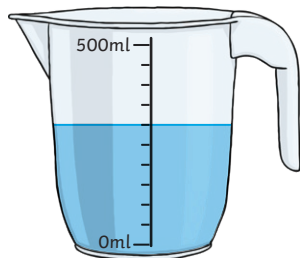
mass: _____.



mass: _____.

- 2) Explain how you worked out the mass of each baby.

- 3) The total mass of some of the baby animals is 72kg.
Which combinations of animal babies could have been included in this total?



1) What is each interval worth on the container? _____

2) What is the capacity of the container? _____

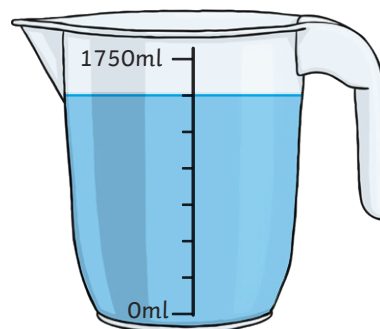
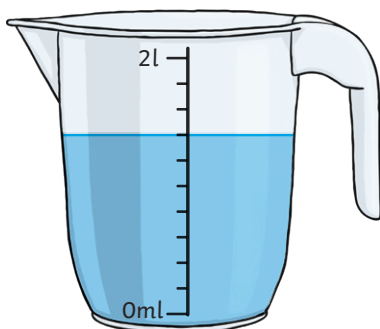
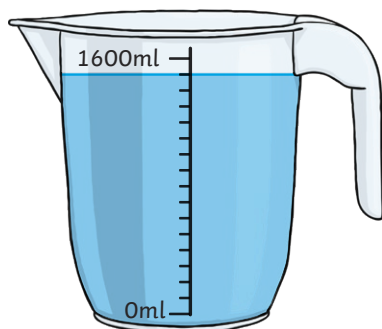
3) What volume of liquid is in the container? _____

Complete these sentences:

Capacity is _____.

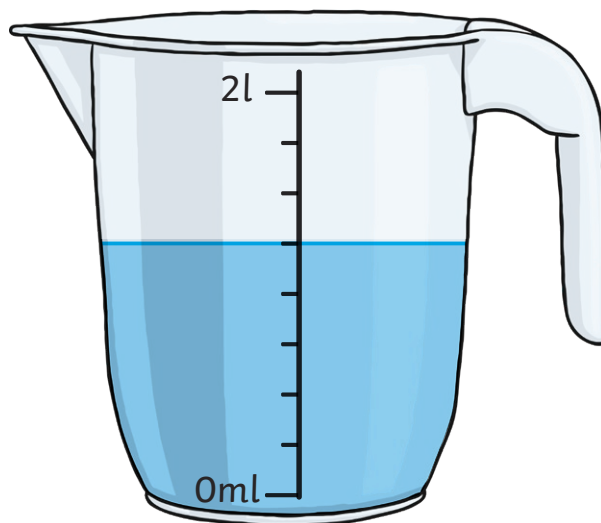
Volume is _____.

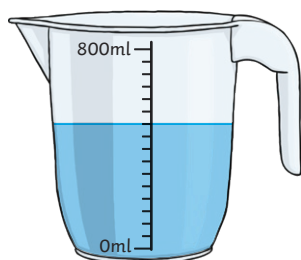
A soft drink bottle has a capacity of 1500ml.



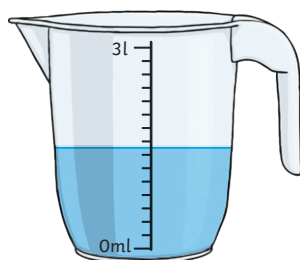
1) Which jug does not contain the contents of a soft drink bottle? _____

2) Ali says that the volume of liquid in this jug is $1\frac{1}{4}$ litres. Do you agree? Explain your answer.

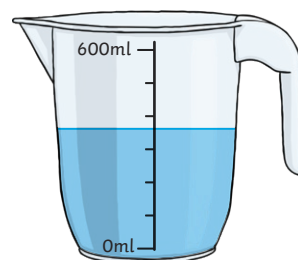




Container A



Container B



Container C



Rafe says,
"My container is half full."



Aria says,
"My container has 1000ml
less in it than Rafe's."



Henry says,
"My container has less
than half a litre in it.
My container has a
capacity less than Aria's."

- 1) Use the clues to work out whose container is whose. Explain how you worked out the answers. How much water could each one have in their container?

| | Container | Volume of Water |
|-------|-----------|-----------------|
| Rafe | | |
| Aria | | |
| Henry | | |

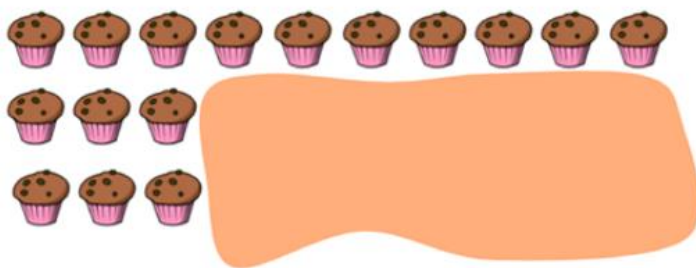
- 2) Two more children, Jessica and Mason, join the group. Jessica has a jug with 1450ml of water in it. Mason has a jug with 2l in it. Write more clues to add the children to the maths story.

Family Challenge

Friday 3rd July

Challenge 1

30 cakes are arranged in an **array**. Some of the cakes are hidden.



How many cakes are hidden?

Challenge 2

Work out the missing numbers.

$$10 \times 2 = 5 \times \text{blue circle}$$

$$10 + 2 = 5 + \text{orange triangle}$$

$$10 \div 2 = 5 \div \text{green square}$$

$$10 - 2 = \text{yellow heart} - 5$$

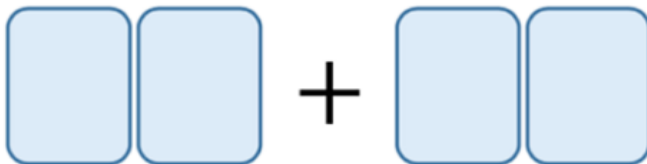
Challenge 3

Danni has these four digit cards.



Danni uses all four cards to make two 2-digit numbers.

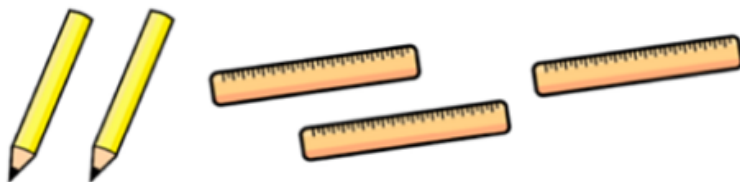
She then adds the two numbers together.



What is the greatest total she can make?

Challenge 4

Sonny buys 2 pencils and 3 rulers.



Each pencil costs 69p.

Sonny pays with a £5 note and receives £1.07 change.

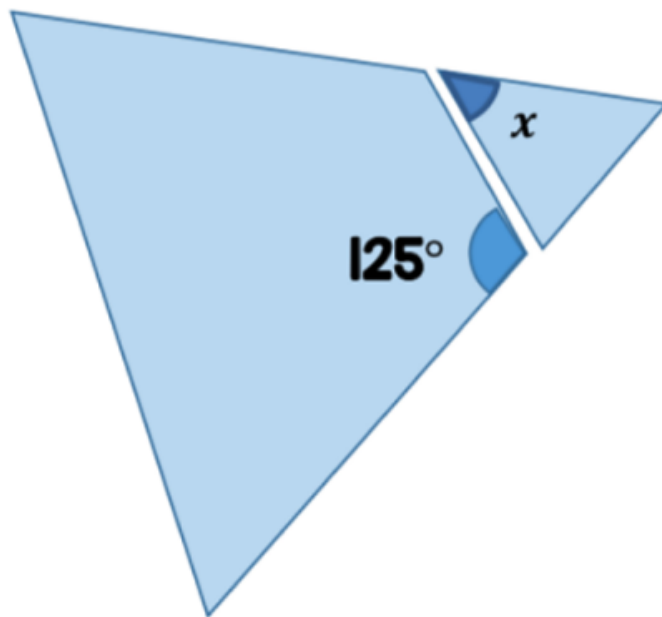
How much does a ruler cost?

Challenge 5

Adam has an equilateral triangle.

He cuts a corner off the triangle.

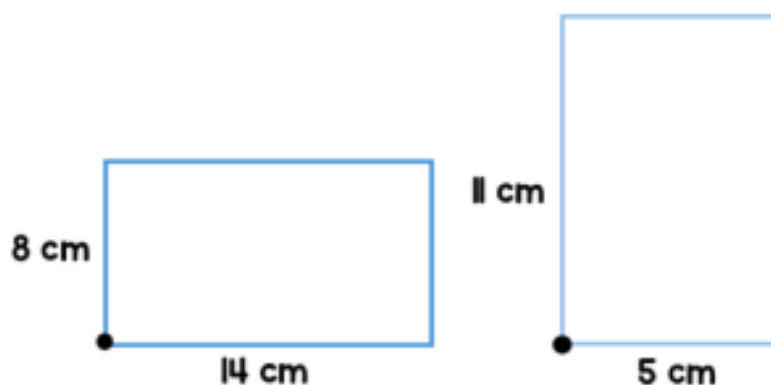
Here are the two pieces.



What is the size of the angle marked x ?

Challenge 6

Here are two rectangles.



The two rectangles are put on top of each other.

They are lined up so the black circles overlap.

The shaded area shows where the two rectangles overlap.



What is the area of the non-shaded parts of the shape?

Challenge 7



Today the ratio of
my age to Anne's
age is $1 : 3$

In exactly 6 years
time the sum of
our ages is 84



Anne

How old was Anne this time last year?

Challenge 8

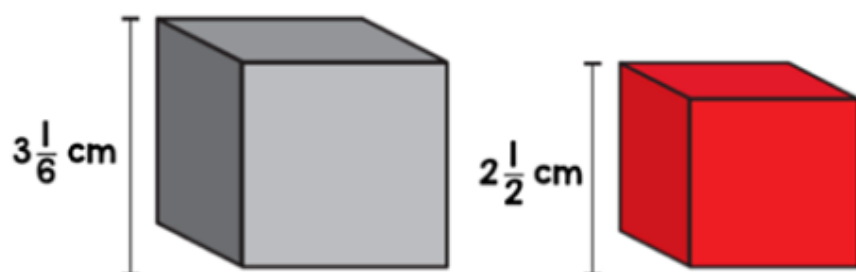
Here is a rule for generating a sequence.

**Double the previous number
and then subtract 1**

The third term of the sequence is 25.

What is the difference between the first and fifth terms?

Challenge 9



Jack builds a tower using grey blocks.

Alex builds a tower using red blocks.

The towers are exactly the same height.

What is the minimum number of blocks they each use?

Challenge 10

A speedboat sets out from a port P on a bearing of 120° .

The speedboat travels at 48 mph.

A fishing boat sets out from port P on a bearing of 210° .

The fishing boat travels at 20 mph.

How far are the two boats apart after 90 minutes?

As a rough guide of difficulty level:

- **Challenge 1 and 2** are suitable for ages 5 to 7.
- **Challenge 3 to 6** are suitable for ages 7 to 11.
- **Challenge 7 to 10** are suitable for ages 11 to 15.

We want everyone to get involved with challenge day, so work together to solve as many as you can and share your solutions!



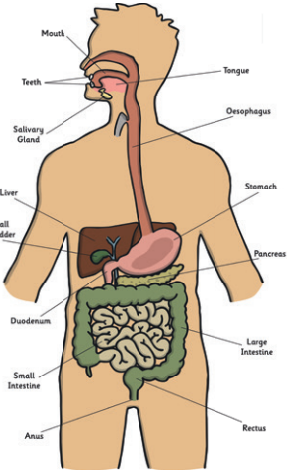
Your Digestive System

Have you ever wondered what happens to your food after you've chewed it in your mouth? Your body is amazing and has a system that sorts and uses the food you eat to make sure your body has everything it needs to work properly. This is called your digestive system. Here's how it works...

Before the Stomach

First of all, we all know that you put food in your mouth to eat it. You enjoy the taste and the feel of the food in your mouth whilst your teeth break it down into smaller pieces. Saliva is the juice in your mouth that is mixed with your food to help make it softer.

When food is small and soft enough to be swallowed, it goes down a big tube to your stomach called the oesophagus (say: a-soff-a-guss). Muscles in the oesophagus take turns to move the food to your stomach. These muscles are so good at this job that they could even get the food to your stomach if you were standing on your head! (Don't try to eat your tea standing on your head though!)



The diagram illustrates the human digestive system within a torso outline. Labels on the left side include: Mouth, Teeth, Salivary Gland, Liver, Gall Bladder, Duodenum, Small Intestine, and Anus. Labels on the right side include: Tongue, Oesophagus, Stomach, Pancreas, Large Intestine, Rectum, and Anus. The organs are color-coded: mouth and tongue are pink, teeth are white, salivary gland is light blue, liver is brown, gall bladder is green, pancreas is light green, duodenum is yellow, small intestine is coiled green, large intestine is coiled brown, rectum is brown, and anus is a small opening at the bottom.

Fact File

- An adult eats about 500kg of food per year.
- Your body can produce up to 1.5 litres of saliva every day.
- An adult oesophagus is about 25cm long.
- A camera has been invented now that is as small as a pill (called Pillcam). It can be swallowed so it passes through your oesophagus in order to take photos of the inside of your body. It can take up to 55,000 pictures over the 8 hours that it's in there! It's been used since 2001 to let doctors see inside patients.

At the Stomach

When the chewed-up food arrives in the stomach, it is mixed with acid that breaks the food down even more into something that looks a bit like porridge- this substance is called 'chyme'.

After the Stomach

The next part of the journey for your food (which doesn't look like food anymore) is through the small intestine. In the small intestine, all the goodness is taken out of the food so it can go off to different places in the body to keep you healthy.

When the small intestine has done its job of getting all the goodness out of the food, all the material that is unwanted goes into the large intestine. Then, it makes its way out of the body as poo at the end of the large intestine.

So, there you have it. Isn't your body clever?

Questions about Your Digestive System

1. Why do you have to chew food before it goes down the oesophagus?

2. What mixes with the food in your mouth?

3. How much food does the average adult eat in a year?

4. Put these organs in the correct order to show the stages of the digestive system:

large intestine

mouth

small intestine

stomach

oesophagus

5. Where in your body does all the waste go right before it leaves the body?

6. Why has the author used an exclamation mark after the word 'head' near the end of the 'Before the Stomach' section?

7. What does 'chyme' look like?

8. Why has the author started the text with a question sentence?

9. Why has the author written '(say: a-soff-a-guss)' in the 'Before the Stomach' section?

10. At the end the author says: 'Isn't your body clever?' Do you agree? Why or why not?

Questions about Your Digestive System

Answers

1. Why do you have to chew food before it goes down the oesophagus?

To break it down to be smaller and softer pieces to move down the oesophagus and through the body. If it were too big or too rough, it might hurt you or get stuck.

2. What mixes with the food in your mouth?

Saliva

3. How much food does the average adult eat in a year?

500kg

4. Put these organs in the correct order to show the stages of the digestive system:

mouth, oesophagus, stomach, small intestine, large intestine

5. Where in your body does all the waste go right before it leaves the body?

Large intestine

6. What has the author used an exclamation mark after the word 'head' near the end of the 'Before the Stomach' section?

Because it is surprising that the body can do this.

7. What does 'chyme' look like?

Porridge

8. Why has the author started the text with a question sentence?

To engage the reader/make you read on.

9. Why has the author written '(say: a-soff-a-guss)' in the 'Before the Stomach' section?

To tell you how to say the word. The word oesophagus is a tricky word and is not written how it is said.

10. At the end the author says: 'Isn't your body clever?' Do you agree? Why or why not?

Open-ended for discussion.

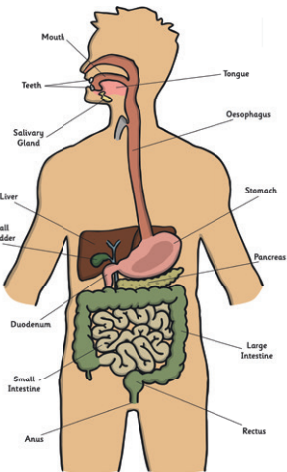
Your Digestive System

Have you ever wondered what happens to your food after you've chewed it in your mouth? Your body is amazing and has a system that sorts and uses the food you eat to make sure your body has everything it needs to stay healthy. This is called your digestive system. Here's how it works...

Before the Stomach

Firstly, we all know that you put food in your mouth to eat it. You enjoy the taste and the texture of the food whilst your teeth break it down into smaller pieces. Then, saliva is mixed with it and your mouth cools it or warms it to a good temperature for you to be able to swallow.

When the food is broken down enough, it is swallowed and goes down a big tube to your stomach called the oesophagus (say: a-soff-a-guss). Muscles in the oesophagus move in waves to move the food down to your stomach. These muscles are so good at this job that they could even get the food to your stomach if you were standing on your head! (Don't try to eat your tea standing on your head though!)



The diagram illustrates the human digestive system within a torso outline. Labels point to various organs: Mouth, Teeth, Salivary Gland, Liver, Gall Bladder, Duodenum, Small Intestine, Anus, Tongue, Oesophagus, Stomach, Pancreas, Large Intestine, and Rectum.

Fact File

- An adult eats about 500kg of food per year.
- Your body can produce up to 1.5 litres of saliva every day.
- An adult oesophagus is about 25cm long.
- A camera has been invented now that is as small as a pill (called Pillcam). It can be swallowed so it passes through your oesophagus in order to take photos of the inside of your body. It can take up to 55,000 pictures over the 8 hours that it's in there! It's been used since 2001 to let doctors see inside patients.

At the Stomach

When the chewed-up food arrives in the stomach, it is mixed with acid that breaks the food down even more into something that looks a bit like porridge. This substance is called 'chyme'.

After the Stomach

The next part of the journey for your food (which doesn't look like food anymore) is through the small intestine. It's here that all the goodness is taken out of the food and goes off to different places in the body for you to use.

When the small intestine has done its job of getting all the goodness out of the food, all the material that is unwanted goes into the large intestine. Then, it makes its way out of the body as poo at the end of the large intestine.

So, there you have it. Isn't your body clever?

Questions about Your Digestive System

1. Why do you have to chew food before it goes down the oesophagus?

2. Name something that happens to the food whilst in your stomach.

3. How much food does the average adult eat in a year?

4. Put these organs in the correct order to show the stages of the digestive system:

large intestine

mouth

small intestine

stomach

oesophagus

5. Where in your body does all the waste go right before it leaves the body?

6. In the 'After the Stomach' section, the author has used brackets to remind us that the food does not look like food at this point. Why doesn't it look like food?

7. Why has the author used an exclamation mark after the word ‘head’ near the end of the ‘Before the Stomach’ section?

8. What does ‘chyme’ look like?

9. Why has the author started the text with a question sentence?

10. Why has the author written ‘(say: a-soff-a-guss)’ in the ‘Before the Stomach’ section?

Questions about Your Digestive System

Answers

1. Why do you have to chew food before it goes down the oesophagus?

To break it down to be smaller and softer pieces to move down the oesophagus and through the body. If it were too big or too rough, it might hurt you or get stuck.

2. Name something that happens to the food whilst in your stomach.

Accept any answers from: breaks down more, gets stored for a while, mixes with acid/juices/enzymes, or the juices in there help kill bacteria in the food.

3. How much food does the average adult eat in a year?

500kg

4. Put these organs in the correct order to show the stages of the digestive system:

mouth, oesophagus, stomach, small intestine, large intestine

5. Where in your body does all the waste go right before it leaves the body?

Large intestine

6. In the 'After the Stomach' section, the author has used brackets to remind us that the food does not look like food at this point. Why doesn't it look like food?

Any answers that give reference to; it has been broken down, it has been chewed and swallowed, it looks more like porridge, or enzymes, acid and juices have mixed with it.

7. What has the author used an exclamation mark after the word 'head' near the end of the 'Before the Stomach' section?

Because it is surprising that the body can do this.

8. What does 'chyme' look like?

Porridge

9. Why has the author started the text with a question sentence?

To engage the reader/make you read on.

10. Why has the author written '(say: a-soff-a-guss)' in the 'Before the Stomach' section?

To tell you how to say the word because it is a tricky/ unusual word to pronounce.

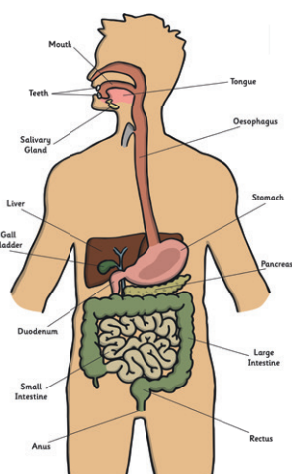
Your Digestive System

Have you ever wondered what happens to your food after you've chewed it in your mouth? Your body is amazing and has a system that sorts and uses the food you eat to make sure you get everything you need to stay healthy. It's called your digestive system. Here's how it works...

Before the Stomach

Firstly, we all know that you put food in your mouth to eat it. You enjoy the taste and the texture of the food whilst your teeth break it down into smaller pieces. Saliva is then mixed with it to help make it softer and break it down. Also, your mouth cools it or warms it to an acceptable temperature for you to swallow.

When the food is broken down enough, it is swallowed and goes down to your stomach via a tube called the oesophagus (pronounced 'a-soff-a-guss'). Muscles in the oesophagus move in waves to move the food down to your stomach. These muscles are so good at this job that they could even get the food to your stomach if you were standing on your head! (Don't try this though!)



Fact File

- The average adult eats about 500kg of food per year.
- Your body can produce up to 1.5 litres of saliva every day.
- An adult oesophagus is about 25cm long.
- A camera has been invented now that is as small as a pill (called Pillcam). It can be swallowed so it passes through your oesophagus in order to take photos of the inside of your body. It can take up to 55,000 pictures over the 8 hours that it's in there! It's been used since 2001 to let doctors see inside patients.

At the Stomach

When the chewed-up and softened food arrives in the stomach (which is a stretchy sack shaped like a letter 'J'), it is mixed with acid and enzymes (pronounced: en-zymes) that break the food down. Once it's broken down, it looks a bit like porridge- it is a substance called 'chyme'. The stomach juices also help to kill any bad bacteria that might be in the food, which could potentially make you ill.

After the Stomach

The next part of the journey for your food (which doesn't look like food anymore) is through the small intestine. It's here that all the goodness is taken out of the food, which goes off to different places in the body for you to use.

When the small intestine has done its job of getting all the goodness out of the food, all the material that is unwanted goes into the large intestine. Then, it makes its way out of the body as poo at the end of the large intestine.

So, there you have it. Isn't your body clever?

Questions about Your Digestive System

1. Why do you have to chew food before it goes down the oesophagus?

2. Name something that happens to the food whilst in your stomach.

3. How much food does the average adult eat in TWO years?

4. Put these organs in the correct order to show the stages of the digestive system:

large intestine

mouth

small intestine

stomach

oesophagus

5. Where in your body do the nutrients and goodness come out of the food to go into the rest of your body?

6. In the fact file, the author tells you about a thing called a 'Pillcam' – why would doctors find this useful?

7. Why has the author used an exclamation mark after the word 'head' near the end of the 'Before the Stomach' section?

8. What is 'chyme'?

9. Why has the author started the text with a question sentence?

10. Why has the author written '(pronounced: a-soff-a-guss)' in the 'Before the Stomach' section?

Questions about Your Digestive System

Answers

1. Why do you have to chew food before it goes down the oesophagus?

To break it down to be smaller and softer pieces to move down the oesophagus and through the body. If it were too big or too rough, it might hurt you or get stuck.

2. Name something that happens to the food whilst in your stomach.

Accept any answers from: breaks down more, gets stored for a while, mixes with acid/juices/enzymes, or the juices in there help kill bacteria in the food.

3. How much food does the average adult eat in TWO years?

1000kg (2 x 500kg)

4. Put these organs in the correct order to show the stages of the digestive system:

mouth, oesophagus, stomach, small intestine, large intestine

5. Where in your body do the nutrients and goodness come out of the food to go into the rest of your body?

Small intestine

6. In the fact file, the author tells you about a thing called a 'Pillcam' – why would doctors find this useful?

To look for something wrong/any problems on the inside of someone's digestive system.

7. What has the author used an exclamation mark after the word 'head' near the end of the 'Before the Stomach' section?

Because it is surprising that the body can do this.

8. What is 'chyme'?

A substance that looks like porridge that contains broken down food mixed with acid, juices and enzymes

9. Why has the author started the text with a question sentence?

To engage the reader/make you read on.

10. Why has the author written '(pronounced: a-soff-a-guss)' in the 'Before the Stomach' section?

The word oesophagus is a tricky word to read and say, and is not pronounced how it is spelt.

How to Write a Formal Letter



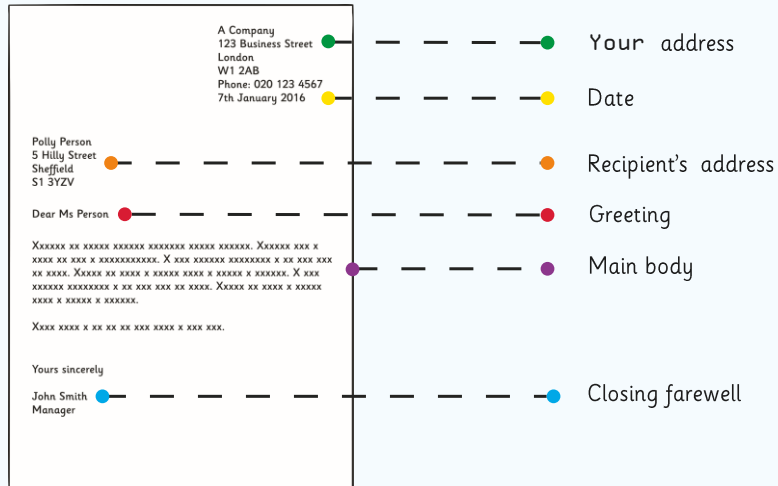
Aim



To learn how to correctly set out a formal letter.



Layout



twinkl.com

Beginning Your Letter

If you don't know who to address your letter to, then you must begin the letter with:

Dear Sir or Madam,

If you know the name of the person you are writing to, then you must begin the letter with Mr, Mrs or Ms along with their surname:

Dear Mr Smith,

twinkl.com

Ending Your Letter

If you don't know who to address your letter to, then you must end the letter with:

Yours faithfully
(YOUR NAME)

If you know the name of the person you are writing to, then you must begin the letter with Mr, Mrs or Ms along with their surname:

Yours Sincerely
(YOUR NAME)

twinkl.com



Formal Letter Example



Mr S. Pilkington
32 Warren Drive
Warwickshire
S13 4AP

Mr T. Smith
89 Foxhole Lane
Twinklstone
WA12 4QP

Monday 26th November 2012

Dear Mr Pilkington,

I am writing to complain about the vegetables purchased from your shop three days ago. Firstly, the sweet potatoes were not only hollow, but had an infestation of ants within them. Secondly, the 500g of mushrooms were actually doorknobs which had been painted grey. Lastly was the watermelon. Upon closer inspection this was no watermelon, rather a football painted green and filled with jelly. I am uncertain of what gave you such a preposterous idea as to paint doorknobs grey and sell them as mushrooms or to fill a football with jelly. This standard is unacceptable and I demand a refund for these goods. You shall be expecting a visit from me within the week.

Yours sincerely

Mr T. Smith

Formal Letter Example



Miss W. Spider
62 Twaddle Street
Rambleswisck
PT5 7AP

Mrs S. Webb
2 Fruitim Road
Pendyville
SP1 4LF

Friday 13th January 2013

Dear Sir or Madam,

Thank you for your email regarding my purchase of a plot of land. I have to say, however, that I am deeply disappointed with the lack of access to this land. I applied for this land because I would have liked to own a little piece of the Scottish Highlands. Sadly this land was at the very top of a highly inaccessible mountain and I feel I have wasted a precious £300.

Your comments would be appreciated.

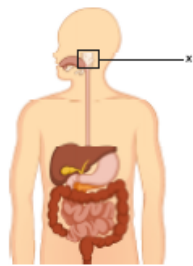
Regards

Mrs S. Webb

Mouth



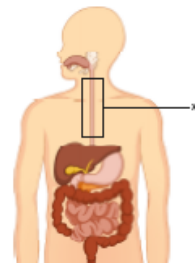
This is where digestion begins. Food is chewed into smaller pieces and mixed with saliva.



salivary glands



This is where saliva is produced. The saliva makes food easier to swallow and contains amylase (an enzyme) that breaks down starch into glucose.



oesophagus



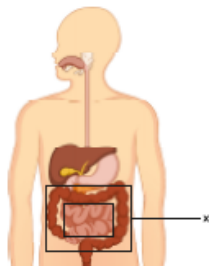
A tube that links the mouth to the stomach.



small intestine



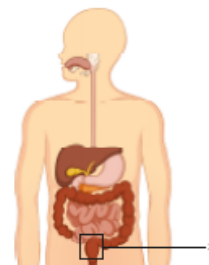
This is where lipase (an enzyme) breaks down fats into fatty acids and glycerol and where small, soluble molecules are absorbed into the blood stream.



large intestine



This is where water is absorbed into the blood stream.

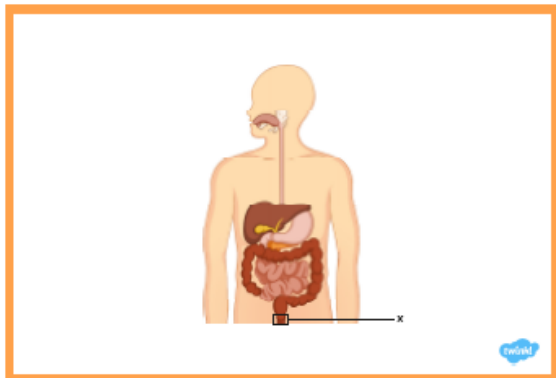


rectum



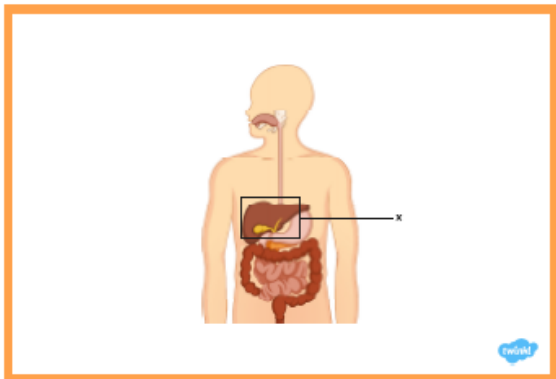
This is where the undigested food (faeces) is stored until we go to the toilet.





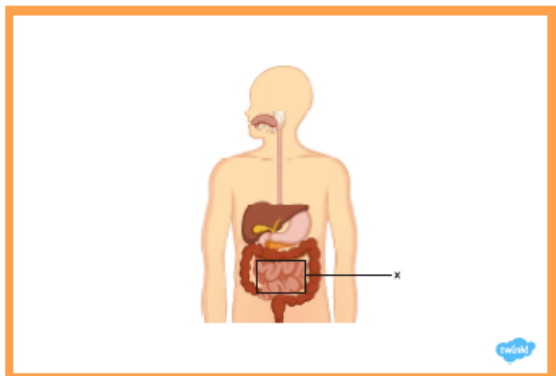
anus

This is a ring of muscle that relaxes to allow faeces to pass out of the body when we go to the toilet (egestion).



stomach

This is a muscular 'bag' that churns and mixes the food with hydrochloric acid (to kill bacteria) and protease (an enzyme) that breaks down proteins into amino acids.







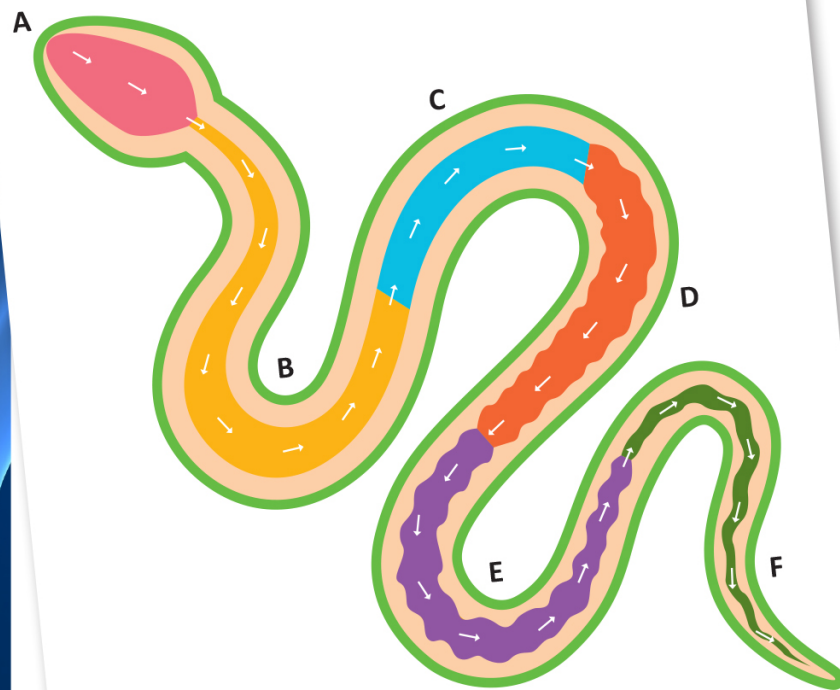








Snake digestive system



A Mouth

A snake doesn't chew its food. Instead, it swallows its prey whole. A snake can unhinge its jaws to stretch around animals much bigger than its own head!

B Oesophagus

Food travels from the snake's mouth through a tube called the oesophagus. The oesophagus is strong and stretchy to help the snake move its large meal to its stomach.

D Small intestine

Once food has been broken down, it is passed to the small intestine. Here, bile from the liver, and digestive enzymes from the pancreas are added to the food. This helps the snake to absorb nutrients.

C Stomach

A snake's stomach is also strong and stretchy. Inside, very powerful acids dissolve the food, including animal bones. However, hair and claws can't be digested.

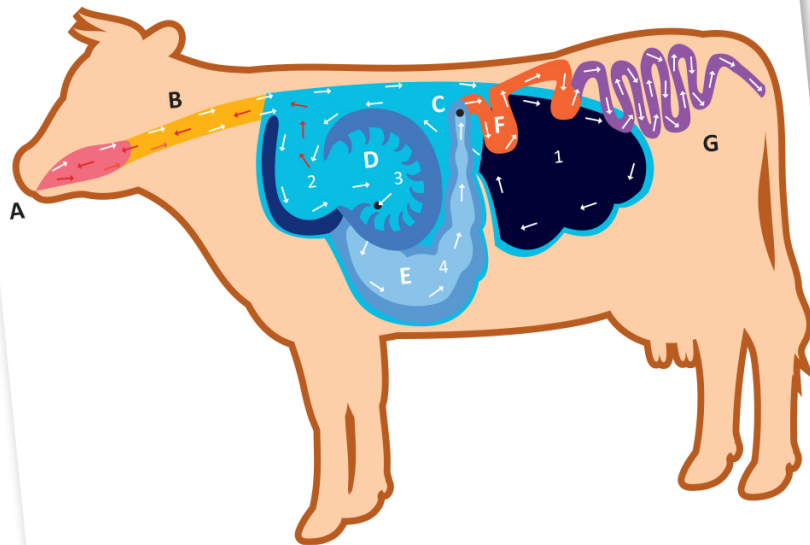
E Large intestine

The large intestine absorbs any remaining nutrients and water, leaving waste products that can't be used by the snake.

F Cloaca

Waste products then move to the cloaca. Here, they mix with waste from the urinary system (the system that deals with wee). Faeces (poo) and the mixed-in urine (wee) leave the snake's body through the cloaca.

Cow digestive system



A Mouth

A cow uses its tongue to grasp and gather grass. It chews the grass, mixing it with plenty of saliva before swallowing. This mixture is called a bolus.

B Oesophagus

The bolus travels from the cow's mouth to the stomach, through a tube called the oesophagus.

C Stomach

The bolus enters the cow's stomach that is split into four chambers. It reaches the **rumen (1)** first where it mixes with digestive bacteria. The mixture then moves to the **reticulum (2)** from which large, undigested particles of food are regurgitated and chewed again.

D Stomach

Food then travels to the **omasum (3)** which acts as a filter. Small particles of food travel on to the **abomasum (4)** while larger particles go back to the **reticulum (2)**.

E Stomach

In the **abomasum (4)** or 'true stomach', digestive enzymes are added to the food. This prepares the food to enter the small intestine.

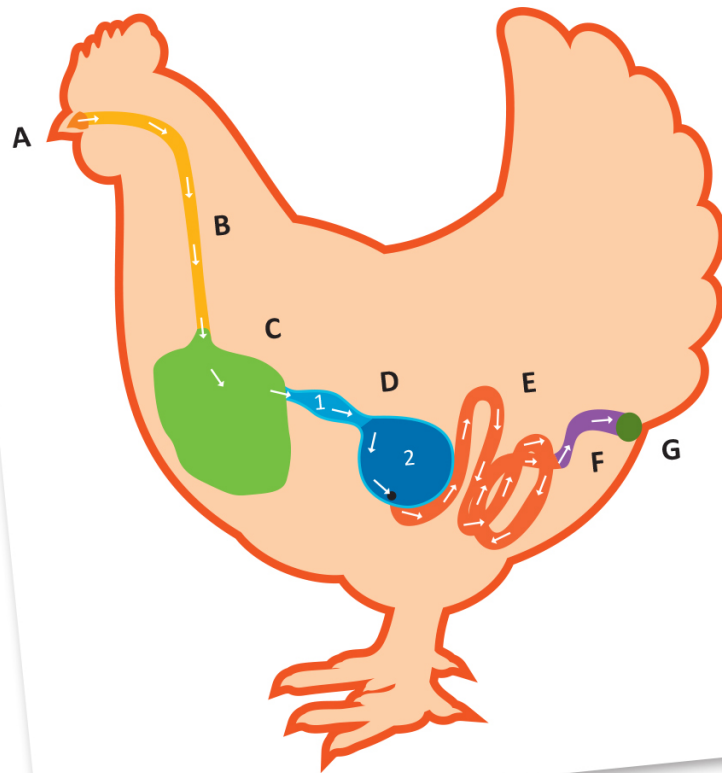
F Small intestine

Bile from the liver and enzymes from the pancreas are added to the food in the small intestine. This helps the cow to absorb nutrients and water.

G Large intestine

The large intestine absorbs any remaining nutrients. Leftover water and waste products leave the large intestine, passing out of the anus as faeces (poo).

Chicken digestive system



A Beak

A chicken pecks at food with its beak. It cannot chew food as it has no teeth. The food mixes with saliva in the chicken's mouth.

B Oesophagus

Food travels from the chicken's mouth through a tube called the oesophagus.

C Crop

At the bottom of the oesophagus is a pouch called a crop. The crop stores food and slowly passes it to the stomach.

E Small intestine

Once the food has been broken down, it is passed to the small intestine. Here, bile from the liver and enzymes from the pancreas are added to the food. This helps the chicken to absorb nutrients.

D Stomach

A chicken has two parts to its stomach: **1) proventriculus** and **2) gizzard**. The proventriculus adds digestive enzymes to food, and the gizzard grinds the food. Chickens swallow grit that collects in the gizzard. This grit helps to grind the food.

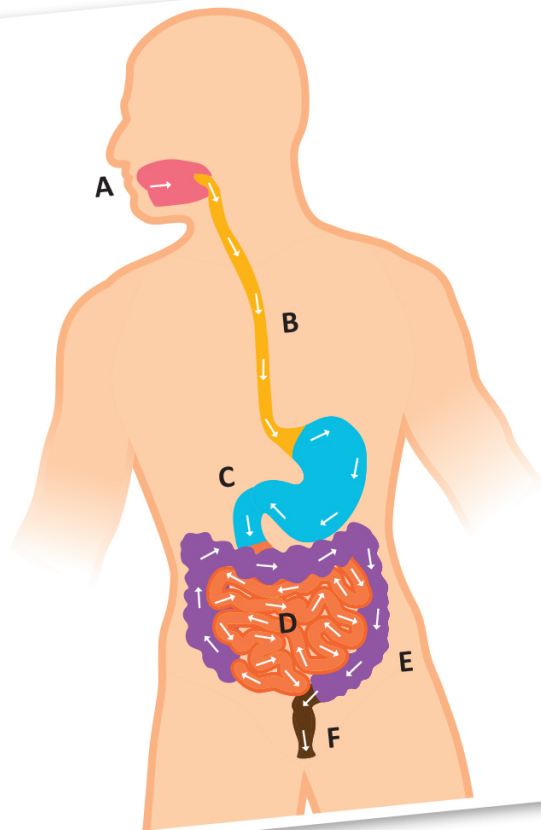
F Large intestine

The large intestine absorbs any remaining nutrients and water, leaving waste products that cannot be used by the chicken.

G Cloaca

Waste products then move to the cloaca. Here, they mix with waste from the urinary system (the system that deals with wee). Faeces (poo) and the mixed in urine (wee) leave the chicken's body through the cloaca.

Human digestive system



A Mouth

Teeth chew food into small pieces. These pieces mix with saliva that contains enzymes, to start digestion.

B Oesophagus

The oesophagus is a tube that transports food from the mouth to the stomach.

C Stomach

The stomach is like a food blender. It is a hollow, muscular bag that contains acids and enzymes, that break food down.

D Small intestine

Most digestion takes place in the small intestine where nutrients from the food are absorbed into the blood.

E Large intestine

The large intestine removes excess water from the indigestible waste to make solid faeces (poo).

F Rectum

The rectum is the part of the large intestine where faeces is stored, ready to leave the body.

The Human Digestive System

Your **mouth** is where food goes in and where it is chewed to make it softer and smaller so it can be swallowed.

Your **tongue** is a muscular organ in your mouth, which is covered in thousands of taste buds.

Your **teeth** help to break down your food into smaller pieces.

The **salivary** gland is where the important secretion saliva is made. Saliva softens your food so you are able to swallow it.

Your **liver** acts as a chemical processing factory to change most of the food that you eat into substances that your body can use. It also gets rid of the things that are no use or are toxic to your body. It produces a liquid called bile, which aids digestion and helps to absorb fats.

The **gall bladder** is a small pouch that sits just under your liver. The gall bladder stores bile produced by the liver.

All the food material that is still unwanted now goes on its last journey through your **large intestine**. It passes through a part of the large intestine called the colon, which is where the body gets its last chance to absorb any water or minerals into the blood. As the water leaves the waste product, what's left gets harder and harder as it keeps moving along, until it becomes a solid poo.

The **oesophagus** is the tube that connects your mouth and your stomach. It has muscles within it that work in waves to move the food you have eaten down into your stomach.

The **stomach** is like a stretchy sack where your food is broken down by acids and enzymes. Once it is broken down, it becomes a porridge-like substance called chyme.

After the chyme comes out of the stomach, it goes into the **duodenum** where it is broken down some more. It also connects to other parts of the digestive system like your liver, your gall bladder and your pancreas.

The **small intestine** is a long stretchy tube that is packed beneath your stomach. It breaks down the food mixture even more so your body can absorb all the vitamins, minerals, proteins, carbohydrates and fats.

The **large intestine** pushes the poo into the rectum, which is the very last stop on the digestive tract. The solid waste stays here until you are ready to go to the toilet.

The solid waste is pushed through the anus into the toilet. The end of your food's journey!

