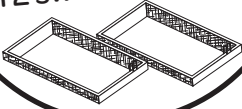


Your digestive system

Fun Fact!

You produce about **37,854 litres of saliva** in a lifetime – enough to fill 2 swimming pools!



Mouth

Fun Fact!

The acid produced in your stomach could digest your other organs, so your stomach produces an entire new layer of mucus-producing surface cells every 2 weeks to protect it.

Stomach

Pancreas

Large Intestine

Anus

(Where the poo comes out)

Oesophagus

Liver

Gallbladder

Small Intestine

Rectum

Fun Fact!

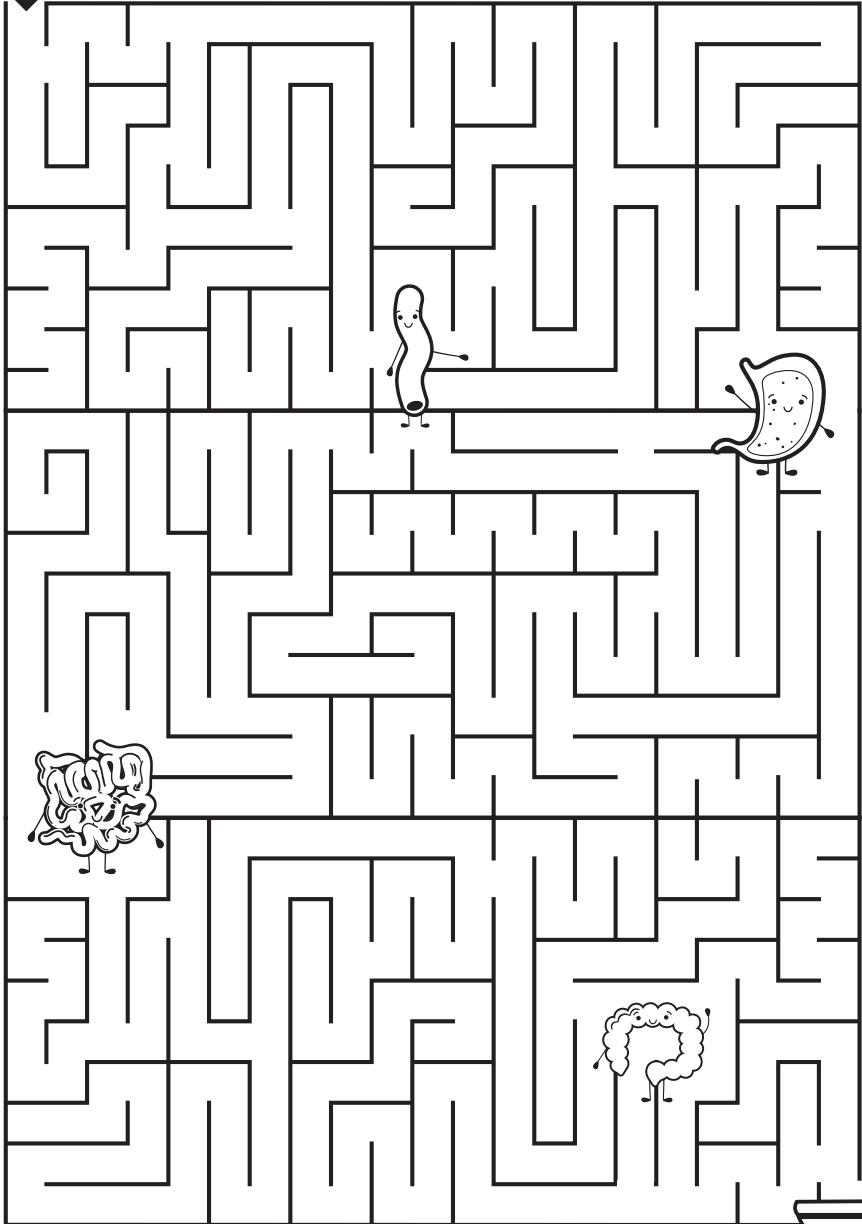
The small intestine is lined with finger-like structures called villi to increase surface area for nutrient absorption.





Tongue to Toilet

Starting at the mouth, find your way through the digestive system via the oesophagus, stomach, small intestine, large intestine then down the toilet!



Find-A-Poo-Word

Will it take you as long as it takes food to go through your small intestine to find all these hidden poo and digestive words? Look up and down, across and diagonally and cross them off the list below as you find them. Good luck!

S	H	O	E	S	O	P	H	A	G	U	S	J	K	L
M	W	R	Z	E	C	Y	U	D	L	I	Q	U	I	D
A	S	D	F	S	P	A	N	C	R	E	A	S	N	I
L	N	S	A	T	B	C	G	Z	A	P	S	L	M	G
L	L	A	R	G	E	I	N	T	E	S	T	I	N	E
I	J	L	T	Y	A	D	H	M	R	I	O	V	H	S
N	K	I	N	O	M	L	O	P	Y	X	M	E	F	T
T	B	V	R	Z	N	B	L	D	V	K	A	R	B	I
E	U	A	L	H	P	G	T	B	I	A	C	F	S	O
S	M	U	C	U	S	O	U	H	L	W	H	B	F	N
T	H	S	O	T	I	H	F	E	L	A	Y	K	I	O
I	E	K	L	P	E	M	D	J	I	N	D	J	B	L
N	P	O	O	G	N	R	E	C	T	U	M	D	R	G
E	Y	A	N	U	J	S	I	Q	Z	S	P	U	E	B
X	M	O	U	T	H	D	S	A	H	M	R	I	E	R

ACID
ANUS
BACTERIA
BUM
COLON
DIGESTION
FART
FIBRE

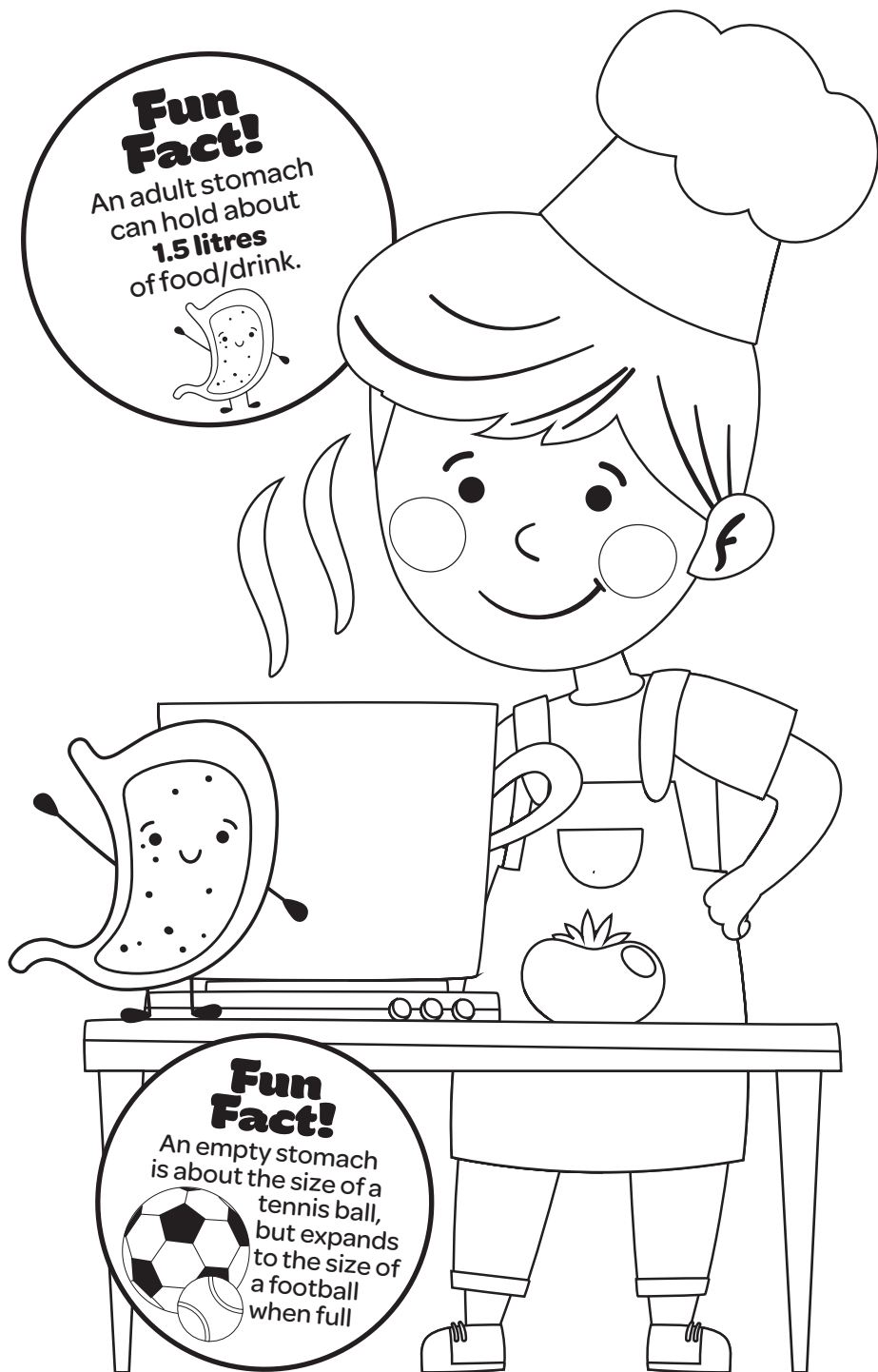
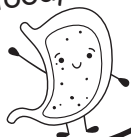
GALL BLADDER
GUT
LARGE INTESTINE
LIVER
LIQUID
MOUTH
MUCUS
OESOPHAGUS

PANCREAS
POO
RECTUM
SALIVA
SMALL INTESTINE
STOMACH
TONGUE
VILLI



Fun Fact!

An adult stomach
can hold about
1.5 litres
of food/drink.



Fun Fact!

An empty stomach
is about the size of a
tennis ball,
but expands
to the size of
a football
when full

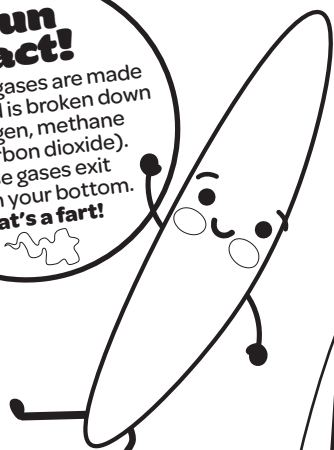


Fun Fact!

Digestive gases are made as the food is broken down (hydrogen, methane and carbon dioxide).

These gases exit through your bottom.

That's a fart!



Fun Fact!

There's no normal number of times you should poo each day. Some people poo once, some 3 times per day. Some only poo once every 3 days!

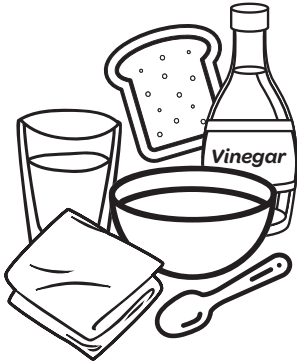


Make your own poo

Your body makes poo automatically. But here's a simple experiment you can try at home to make it by hand!

You'll need the following:

- A piece of bread
- 1/4 cup of water
- teaspoon of white vinegar
- A bowl
- A dish towel



Step 1: Chewing

Tear the bread into small pieces and place it into the bowl. This is just like chewing your food with your teeth.

Step 2: Saliva

Pour some of the water into the bowl with the bread. Mix it all up. This is like the saliva in your mouth that starts to help your food break down before you swallow.

Step 3: Stomach acid

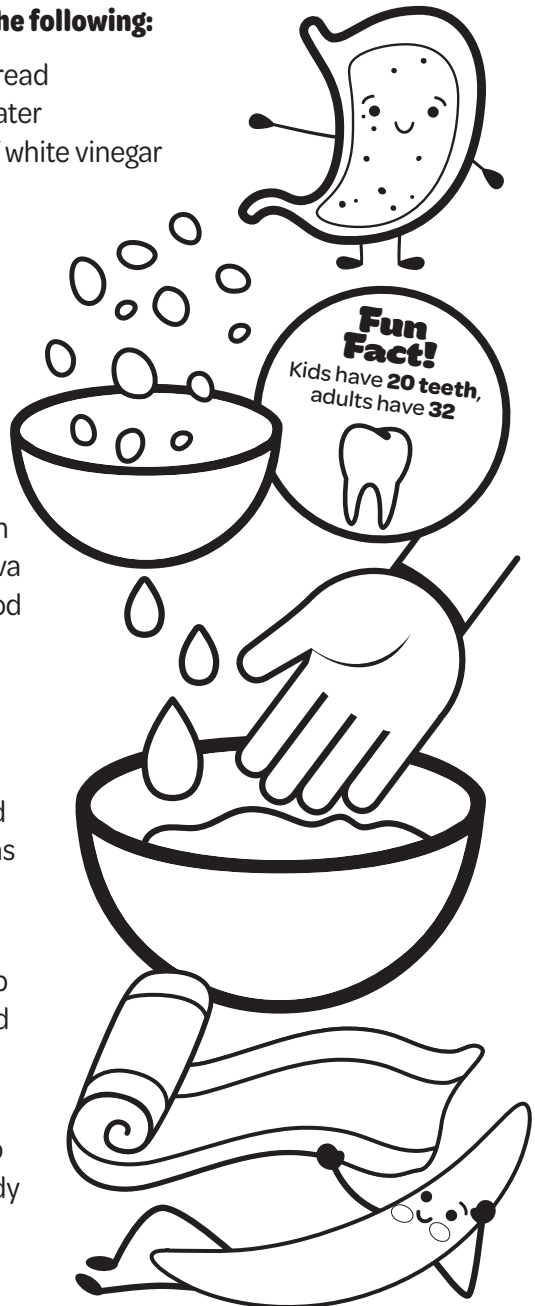
Pour some of the vinegar into the bowl mixture. This is like your stomach acid (but definitely not as harsh!). Churn and mash the mixture, just like what happens in your stomach.

Step 4: To the intestines!

Grab a handful of the mixture and dump it on the towel. Now roll the towel up and squeeze to get all the liquid out.

Step 5: Poo

Unroll the towel and check out your poo – the solid waste left over after your body has taken the nutrients and water out.



Poo Quiz

How well do you know the digestive system and poo?

See how many questions can you get right!

1. Saliva is a mixture of secretions that help break down food.

- A. True
- B. False

2. Muscles in your oesophagus use a coordinated action to move food down to the stomach.

- A. True
- B. False

3. The pancreas makes enzymes that help break down proteins, carbohydrates and fats.

- A. True
- B. False

4. The stomach's entire layer of surface cells are replaced every two weeks.

- A. True
- B. False

5. The Digestive System begins in the nose.

- A. True
- B. False

6. What are the organs that work together to break down food called?

- A. The lymphatic system
- B. The digestive system
- C. The alimentary system
- D. The intestinal system

7. How does chewing help digestion?

- A. Chewing makes food taste better
- B. Chewing makes food last longer
- C. Chewing makes food smaller
- D. Chewing makes it harder for bacteria to grow

8. What contains an enzyme that starts digesting carbohydrates as you chew?

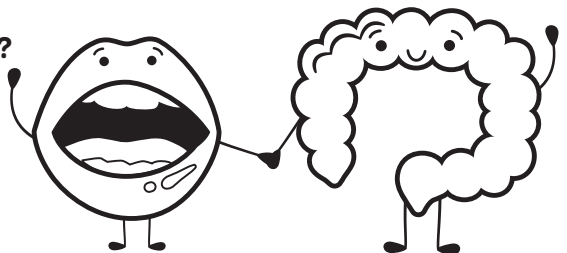
- A. Incisors
- B. Saliva
- C. Gums
- D. Oesophagus

9. Why is the small intestine called "small"?

- A. It is short.
- B. It is small in diameter
- C. It doesn't hold much.
- D. It doesn't weigh much.

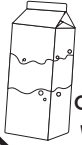
10. What are the finger-like projections of the small intestine called?

- A. Milly
- B. Billy
- C. Villi
- D. Silly

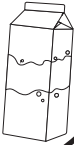


Fun Fact!

You fart nearly
2 litres of gas every day.



That's
2 large
milk
cartons
worth!



Ghost Poo on a stick

A cool treat on a hot day and good for you too!

Ingredients

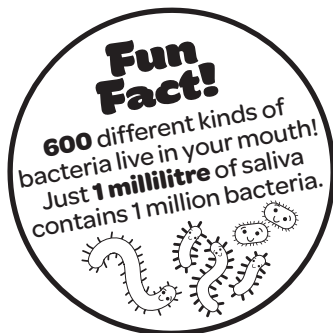
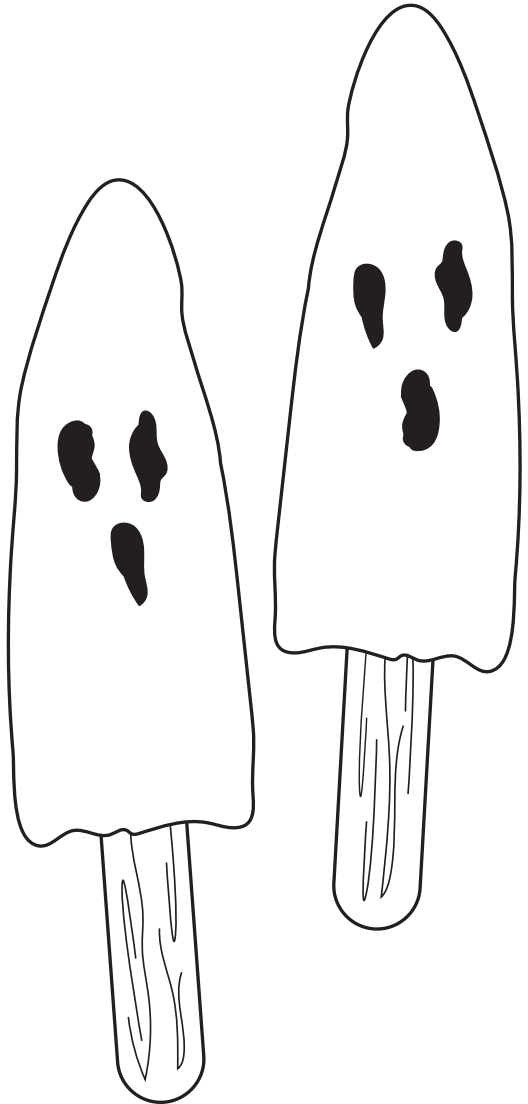
Serves = 4

- 4 bananas
- 2 tbsp sultanas
- 1 cup Greek yoghurt (reduced fat)
- 4 skewers

It's this easy

1. Line a small tray with baking paper. Peel each banana, trim off one end and place a skewer through the bottom.
2. Fill a tall glass with Greek yoghurt, dip each banana in and place onto the lined tray. Spoon the remaining yoghurt evenly over each banana.
3. Pop two sultanas at the top of each banana to make the eyes of the ghost, and one to make the mouth.
4. Place the tray into the freezer for roughly 3 hours or until they are set. Enjoy!

For more healthy, easy recipes visit
nomoneynotime.com.au



Get to know your poo!

Type 1



Separate, pebble-like pieces that are hard to pass. You're constipated.

Type 2



Firm, sausage-shaped and lumpy indicates you're getting a little backed up.

Type 3



Sausage-shaped with visible surface cracks – a respectable poo!

Type 4



Soft, smooth and easy to pass – this is your perfect poo!

Type 5



Soft formed pieces with defined edges means you're edging towards diarrhoea.

Type 6



Light, fluffy pieces with frayed edges and a mushy texture is a definite diarrhoea indicator.

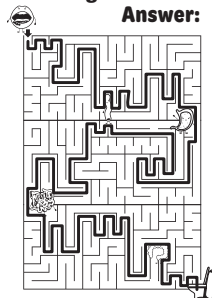
Type 7



Thin and runny with no solid pieces at all – that's diarrhoea. Hope you feel better soon.

Tongue to toilet

Answer:

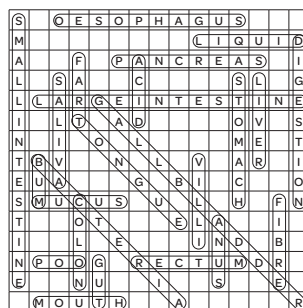


Poo Quiz

Answers:

- 1.A 2.A
- 3.A 4.A
- 5.B 6.B
- 7.C 8.B
- 9.B 10.C

Find-A-Poo-Word Answers



About the Hunter Medical Research Institute (HMRI)

We research a lot more than just poo!

The Hunter Medical Research Institute (HMRI) is made up of over 1,500 researchers and 100 support staff all dedicated to improving the health and wellbeing of our communities.



Our main campus is based at the John Hunter Health & Innovation Precinct in Newcastle NSW, but some of our researchers are based elsewhere to carry out their work.

Every one of them has a different reason for getting involved in medical research and choosing their particular area of expertise. Some were inspired by teachers or mentors. Others like the challenge of solving a universal problem. And some have seen friends or family affected by a cruel disease.

They study a huge variety of research areas that affect literally everyone. Some of our research programs even look at what's going on before you're even born!

We also study cancer, stroke, immune health and infection. Also the heart and the brain. We've got research programs about physical activity, asthma and breathing, food and nutrition, healthy minds and more.

All our research works to improve health and wellbeing across every stage of life, benefiting our vulnerable communities, Indigenous peoples and regional and rural populations. We respond to current and new health challenges affecting our communities in bold new ways.

To find out more about all our research programs, please visit hmri.org.au

You can support vital medical research!

We rely on the generosity of people like you to help keep our dedicated researchers busy looking for answers to our communities' most urgent health problems. Please scan the QR code to donate. Big or small, we thank you all!



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