Reddiford Digest

June 2024

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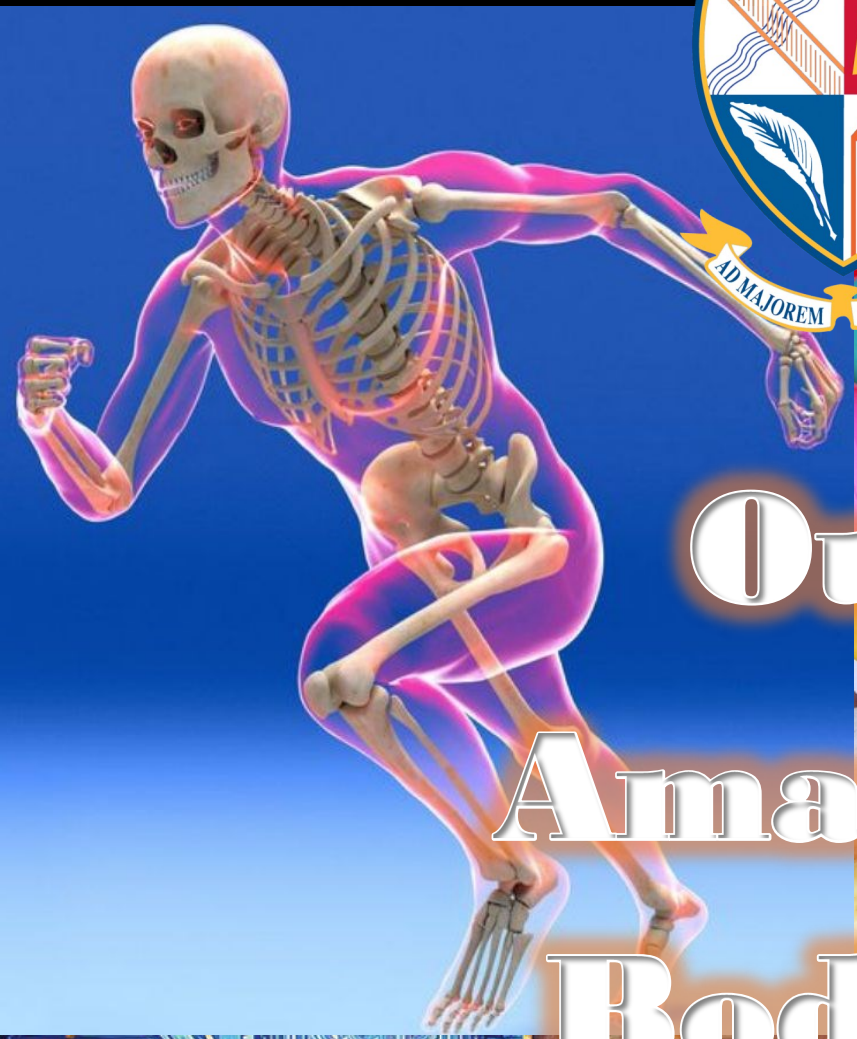
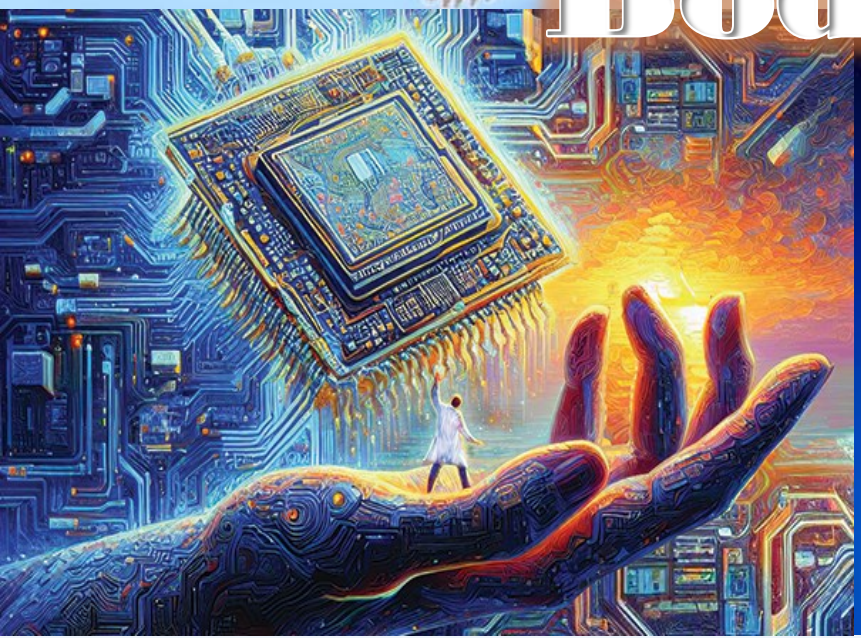
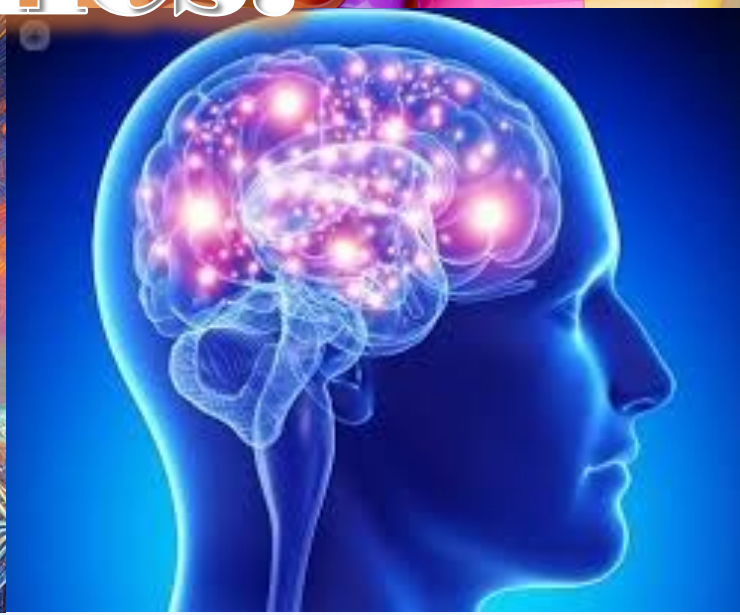


Our Amazing Bodies!





Have you ever wondered about our brilliant body? Well, in this edition of the Reddiford Science Digest, you will find some amazing articles about a range of topics on the human body. Dive down into the stomach and find out all about dangerous drugs, then swoop up to the brain and investigate neurology! Hop into the bloodstream and discover the heart, lungs and immune system, then uncover the human skeleton! Read about AI and how its revolutionising medical healthcare! And finally, unwind by doing fun quizzes and puzzles.

Dangerous Drugs

By Anuradha Jayaseelan (6RS) and Sophie Cegla (6RS)

Drugs are chemicals or substances that change the way our bodies work. Some medicines people take have highly dangerous side-effects. Many can be prescribed by doctors for medical reasons. When taken, all drugs find their way into the bloodstream.

There are over 20,000 known drugs in the world, and many of them are now classed as illegal. The first modern, pharmaceutical medicine was invented in 1804 by Friedrich Sertürner, a German scientist. He extracted the main active chemical from opium and named it morphine, after the Greek god of sleep.

People take harmful drugs because they want to change something about their lives. Here are some of the reasons young people have given for taking illegal drugs - to fit in with other people, to escape or relax from their stress, to relieve boredom, to seem grown up and mature, to have the courage to rebel against what they do not like, or to experiment and see how they effect people.

Even though some people may think these are good reasons, that does not mean that they are right. In fact, none of these objectives are valid, and you should never take drugs for these purposes. The only reason you should take drugs is if you have been prescribed them by an authorised pharmacist, or doctor as a treatment for a medical cause.

Some dangerous drugs are:

- **Alcohol**
- **Fentanyl**
- **Heroin**
- **Cocaine**
- **Methamphetamine**
- **Xanax Alprazolam**
- **Oxycodone**
- **Ketamine**
- **Cannabis**
- **Diazepam**

Good Drugs

Introduction

Medicines are types of drugs which are prescribed by doctors to help heal and repair our bodies. They are usually taken by either swallowing, inhaling or injecting. There are many different types of drugs each for different conditions, and here are some of them:

The 10 most important drugs made in history

1 Penicillin - an antibiotic discovered by Alexander Fleming.

2 Insulin - a type of diabetes treatment created by Freidrick Batning

3 Small Pox vaccine - an injection to rid small pox, created by Edward Jenner

4 Morphine - used to relieve pain, created by Friedrich Seturner

5 Aspirin-relieves pain and reduces risk for heart attacks and strokes

6 Polio vaccine - used to prevent polio disease, created by Jonas Salk

7 Thorazine –an antipsychotic

8 Chemotherapy Drugs - drugs used to defeat cancer

9 HIV Protease Inhibitors - medications that help slow the progression of HIV by blocking the enzyme "protease," which HIV cells need to develop

10 Ether– a type of anaesthetic used in surgery

Did you know that the USA makes up 40% of the world's pharmaceutical industry!

An Expert On Drugs

We interviewed a pharmacist, to find out more about the use of drugs. Here, we will be talking to Mr. Roshan Jayaseelan, MR Pharms, a registered pharmacist (Anuradha's Dad).

Anuradha: Why did you decide to be a pharmacist?

Pharmacist: I decided to become a pharmacist because it allowed me to bring together my passion for Science and healthcare, to make a difference to patients and customers. I find this very rewarding.

Anuradha: So, what have you sold most frequently?

Pharmacist: Items such as painkillers, cough mixtures, hay fever treatment and skin care products.

Anuradha: What is the most popular drug you sell?

Pharmacist: Paracetamol based products, such as Calpol.

Anuradha: What is the most dangerous drug you sell, and do people need to have permission to buy them?

Pharmacist: I would not say drugs that I sell are dangerous, but they do require patients or their representatives being advised on how to use them correctly.

Anuradha: Why?

Pharmacist: This is because drugs are not ordinary shopping products and they need to be suitable for the individual patient and any symptoms they are having. Therefore, care is needed before selling them to insure they are used safely.

Anuradha: You are a pharmacist, so what type of pharmacist are you?

Pharmacist: In my previous role, I was a superintendent pharmacist.

Anuradha: What does this mean?

Pharmacist: This position meant that I was responsible for the clinical standards and the overall responsibility of making sure that the pharmacy I was in charge of was running safely and well.

Anuradha: Well, I'm afraid that's all we've got time for. Thank you for talking to us.

Pharmacist: Thank you very much for interviewing me, it has been a pleasure. I hope your readers enjoy reading this.

Puzzling Drugs

GOOD OR BAD?

Guess whether these drugs are good or bad for you.

1.Nicotine– one of the main ingredients in cigarettes

2.Amoxicillin - If you suddenly stop taking this, you will catch an illness.

3. Ketamine - This is a type of anaesthetic.

Results

0/3 = Go back to basics

1/3 = Maybe spend your free time practising instead of playing video games

2/3 = 1 more year in medical school and you'll be top of thee class

3/3 = Perfect! You now have the title 'drug master'

Extra Information

Visit https://www.bbc.co.uk/bitesize/articles/zg982nb for a video on drugs.

Answers: 1. Bad 2. Good 3. Bad

NEUROLOGY

The brain is a very important organ which tells the body what to do by using nerves to send messages to other parts of the body.

Did you know without your brain you will see everything upside down?

60% of the brain is made up of fat. This makes it the fattiest organ in the body, however some fat is stilled needed for the brain to work. It is important to provide the brain with nutrients that help to make the brain perform better or at its normal standard.

Did You Know?

The brain travels up to an impressive speed of 268mph!

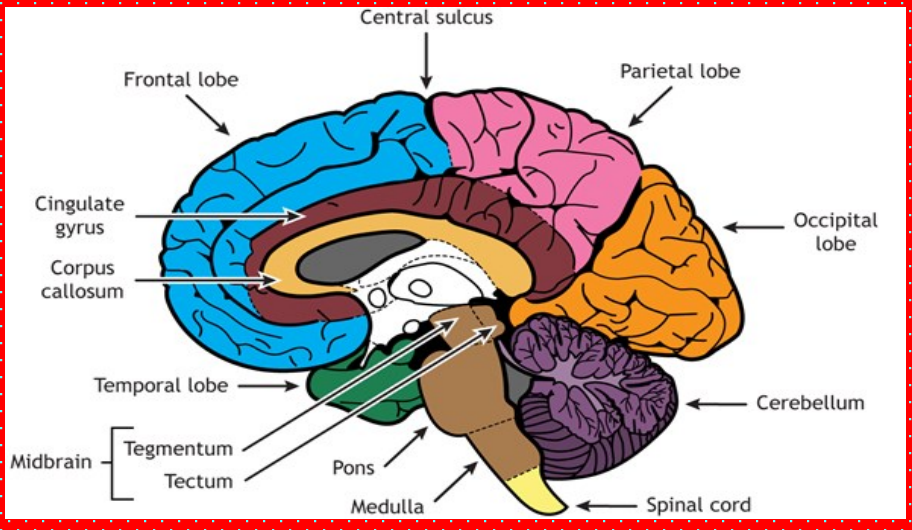
Your spinal cord stops growing at the age of four years!

The spinal cord is the main source of communication between the brain and the body.

The human brain weighs 3 pounds.

A brain freeze is actually called sphenopalatine ganglioneuralgia.

The human brain can generate 232 watts of power which is enough to light a light bulb.



HOW CAN THE BRAIN GET DAMAGED?

Traumatic brain injury usually results from a violent blow or jolt to the head or body. Sharp objects that go through brain tissue, for example a shattered piece of skull, can also cause traumatic brain injury. Mild traumatic brain injury may affect your brain cells temporally.

Key facts on the brain:

The skull protects the brain.

The brain is encased in a membrane known as meninges.

Interesting Facts About The Brain

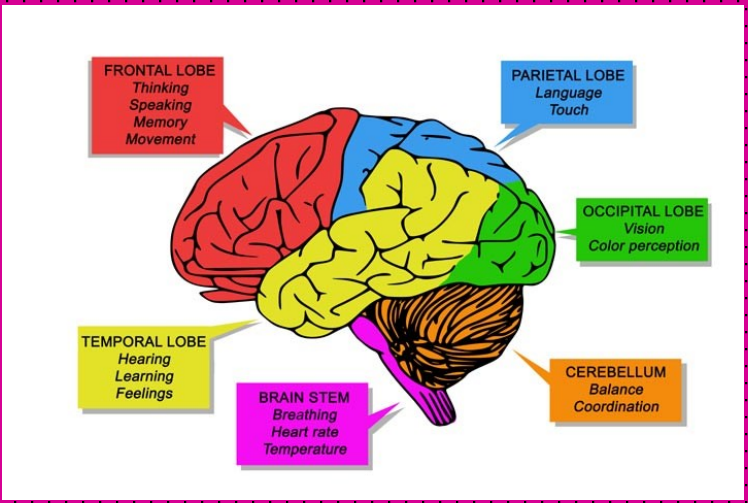
Twelve pairs of cranial nerves carry information from your senses to the brain and body.

Lower in the brain, there is a part called the cerebellum, which plays a key role in motor control, coordination, and spatial navigation. This helps us to find our way, e.g. like out of a maze.

Underneath is the brain stem, which connects the brain to the spinal cord, there is a nerve pathway that runs all the way down your back, sending and receiving information from our senses.

The brain stem includes the pons, which helps control our breathing, and the medulla oblongata, which regulates our heart and other body reflexes like vomiting, coughing, sneezing and swallowing.

REGIONS OF THE BRAIN



THE FRONTAL LOBE is for personality and emotions, higher thinking skills, like problem solving; and controlling movement.

THE TEMPORAL LOBE helps process any sounds and helps with understanding speech.

THE PARIETAL LOBE is involved with your senses and attention span.

THE OCCIPITAL LOBE helps your eyes see, including recognition of shapes and colours.

The THALAMUS, in the centre of the brain, relays sensory and motor information to the cortex and helps with consciousness, sleep and alertness. Twelve pairs of cranial nerves carry information from your senses to and from the brain and body.

The limbic system, a region under the cortex, processes our emotions. The AMYGDALA is part of the limbic system, and it helps to feel emotions.

The HIPPOCAMPUS in the temporal lobe which is like a "memory indexer" that sends memories to certain parts of the brain for storage, and retrieves them when needed.

The brain controls many actions through rapid nerve impulses, but there are some body functions that the brain controls over many hours or days.

These are just a few of the parts and functions of the beautiful, amazing, and complex human brain. We must exercise it, protect it, and understand how important it is for every thought and action in our daily lives. By Sakthi Sasitharan 5G

Interview with Dr Krishnan (Neuroradiologist)

How does the brain work?

That's actually a really complicated question! But in its most essential form, it conducts electricity through neurons and chemicals across synapses (spaces). This way, it sends messages to different parts of the brain and body.

How does the brain affect the body?

The brain is responsible for all body functions - the way we move, feel, touch, taste, see and hear. All our organs are regulated by the brain.

What is the brain connected to and how?

The brain is connected to the brainstem and spinal cord and sends out nerves to all parts of the body.

What are the different parts of the brain?

The brain is made up of different lobes: frontal, parietal which controls your senses, temporal and occipital lobes. The brain is made up of cortex (grey matter) where impulses are generated and white matter, through which signals are transmitted. At the base of the brain is the cerebellum, which controls balance and movement; the brain is connected to the brainstem through which signals are sent from the brain to the body.

How do conditions like Alzheimer's and dementia affect the brain?

The brain loses volume and this volume loss can affect different parts of the brain so, affecting volume.

Extra information

https://www.youtube.com/watch?v=iyzDvZRNkqU

https://www.youtube.com/watch?v=yrcnARiD4Ag

https://www.youtube.com/watch?v=8v6EPDD3Wu0

We hope this has answered your questions!

By Aarav Krishnan 5B

Brain Games

Brain Teasers

Brain teasers - why are they good? They are good for your brain because they always challenge your brain. Brain teasers help stimulate a child's cognitive abilities, as well as assisting them in improving their ability to stay focused on one task. Brain teasers are activities that allow you to think outside of the box to find the solution.

Easy challenge

1. A man stands on one side of a river, his dog on the other. The man calls his dog, who immediately crosses the river without getting wet and without using a bridge or a boat. How did the dog do it?
2. Is the capital of Kentucky pronounced Louisville or Luee-ville?

Medium challenge

1. In 1990, a person is 15 years old. In 1995, that same person is 10 years old. How can this be?
2. What do an island and the letter “t” have in common?
3. The person who makes it has no need for it. The person who purchases it does not use it. The person who does use it, does not know he or she uses it. What is it?

Hard challenge

1. How can a man who shaves several times a day still sport a long beard?
2. Put a coin into an empty bottle and insert a cork into the neck. How can you remove the coin without removing the cork or breaking the bottle?

BRAIN TEASER ANSWERS

EASY challenge

1. **The river is frozen**
2. **Neither, it is Frankfurt**

Medium challenge

1. **The person was born in 2005 BC**
2. **They are both in the middle of water**
3. **A coffin**

Hard challenge

1. **He is a barber**
2. **Push the cork down into the bottle. Then shake the coin out.**

You can find more teasers at https://www.rd.com/list/brain-teasers/

Random facts about the brain

Your brain isn't fully formed until age 25.

Your brain's storage capacity is considered virtually unlimited.

Brain information travels up to an impressive 268 miles per hour.

On average, your spinal cord stops growing at 4 years old.

By Waris Stotz 4S

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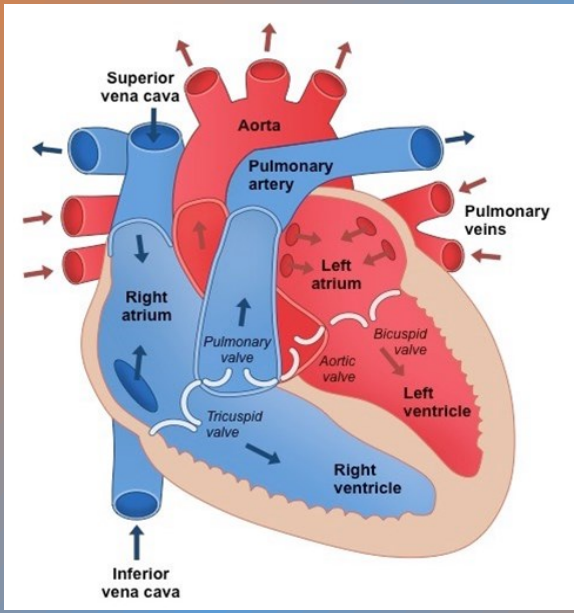
Cardiothoracic

By Kishan Gudka (6F) and Harisiyan Sajiram (5B)

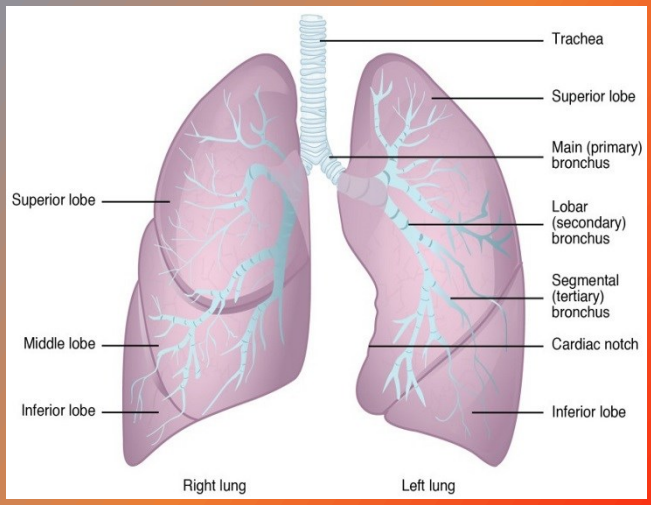
Today we are going to tell you about the cardiothoracic system.

Cardiothoracic basically means heart and lungs. They are both very important organs, as the heart acts as the pumping machine and the lungs helps oxygenate the blood.

You might think these organs are small but they are both connected together and are part of the circulatory system (blood vessels) which runs throughout your body. As you can imagine this is an incredibly long distance.



The Anatomy of the Heart



The Anatomy of the Lungs

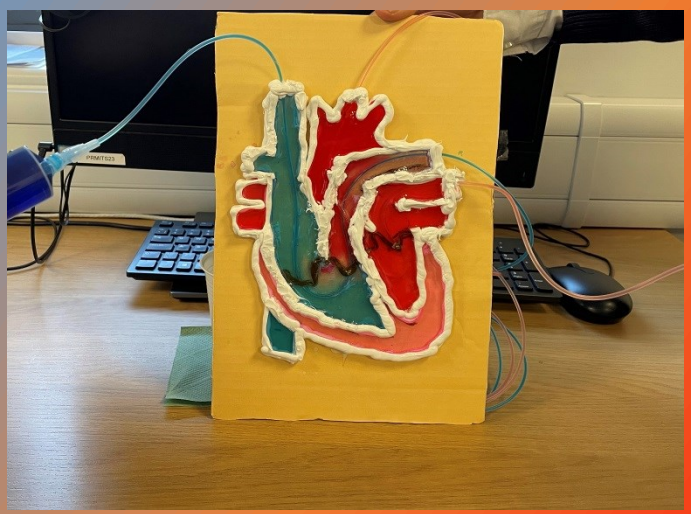
Fun facts about the Heart!

- Your heart beats roughly 100,000 times a day.
- When you sleep, blood takes 16 seconds to travel throughout the body.
- In general, women’s hearts beat faster than men's.
- Your heart’s beating sound is your valves opening and closing.
- An electrical system controls the rhythm of your heart.
- The heart can continue beating even when it's disconnected from the body.
- Laughing is good for your heart. It reduces stress and gives a boost to your immune system.
- If you were to stretch out your blood vessel system, it would extend over 60,000 miles.
- Each minute your heart pumps 1.5 gallons of blood.
- Your heart weighs roughly 11 ounces.
- The volume of blood pumped by the heart can vary over a wide range, from five to thirty litres per minute.

Creating a working heart :

DIY Equipment

- Syringe x2
- Tubes x2
- Resin
- Silicon
- Plastic box



You can find the instruction on page 18.

Fun facts about the Lungs!

- The right lung has three rounded sections called lobes. The left lung has two lobes. The base of each lung rests on a strong sheet of muscle called the diaphragm.
- In normal breathing the diaphragm and the muscles between the ribs automatically tighten and relax.
- Lungs have over **300 million tiny air bags called alveoli.**
- The alveoli carry oxygen into the blood stream and remove carbon dioxide which is exhaled in our breathe.
- A healthy lung is pink, smooth, and shiny, people who smoke damage their lungs; a damaged lung is black, bumpy, and dull.
- Asthma happens when dust makes airways tighten and makes it difficult to breathe. Asthma is treated with an inhaler pump; this treats the sensitive tubes directly.
- **Most people do not breathe correctly!** Without even realising it we often breathe too shallow, hold our breath, breathe through our mouths, or breathe through just one nostril. Focusing on breathing correctly will increase oxygen supplies to help us to relax and improve concentration.

Creating a working lung:

DIY Equipment

- 2 litre empty bottle x1
- Y-tube
- 9 inch balloon x2
- 12 inch balloon x1
- Scissors
- Masking tape

Find out instructions on page 18.

An Interview With a Cardiothoracic Surgeon

Harisiyan **Why do you like your job?**

Dr Sajiram I like my job because it is complicated yet rewarding to operate on human hearts, and hugely satisfying to fix the problems with the heart.

Kishan **What do you find hard about your job?**

Dr Sajiram Although it is great to hold human hearts sometimes it is not possible to fix the problem and the heart does not wake up, despite you trying your level best to fix it. These situations can be hard especially when telling the bad news to patients.

Harisiyan **How do you work under pressure?**

Dr Sajiram I remain calm and study my patients and go through all possible scenarios in my head before I operate.

Kishan **Why did you want to be a heart surgeon?**

Dr Sajiram I wanted to be a heart surgeon because the topic about the heart interested me the most in medical school, and working with one of the most famous heart surgeons, Sir Magdi Yacoub, who inspired me.

Harisiyan **How long did it take to be a heart surgeon?**

Dr Sajiram After medical school it took 17 years.

Kishan **What is your favourite operation?**

Dr Sajiram My favourite operation is to change the heart valve to a new valve and to replace the aorta after it increases in size or bursts.

Fun and games

c	a	s	d	f	g	h	k	l	w	s	f	h	k
i	a	d	g	g	j	P	c	m	u	s	c	l	e
r	e	r	t	u	o	m	b	b	k	q	e	i	b
c	y	y	d	y	y	u	d	a	o	r	t	a	z
u	a	w	d	i	h	p	t	h	t	u	k	l	l
l	e	J	h	g	o	g	d	a	l	r	h	f	f
a	h	k	l	l	v	t	b	b	j	m	i	m	z
t	c	h	e	a	r	t	h	l	a	s	y	a	u
e	a	h	g	d	s	v	a	o	s	s	o	l	m
z	r	j	k	l	q	a	w	o	r	e	r	a	t
X	t	p	o	o	i	l	u	d	y	a	y	r	t
c	v	v	d	d	u	v	U	t	y	y	c	t	U
a	b	s	d	f	f	e	r	n	m	o	p	i	u
l	u	n	g	s	e	w	q	b	v	c	x	m	c

blood	cardiothoracic	lungs	heart
circulate	muscle	aorta	valve
mitral	atrium	pump	

Anagrams

1. AIHRCTOIDCCAR
2. REAHT
3. ICLRUTAEC
4. AARHECT
5. MSELUC
6. VVLAE

Find answers on page 18.

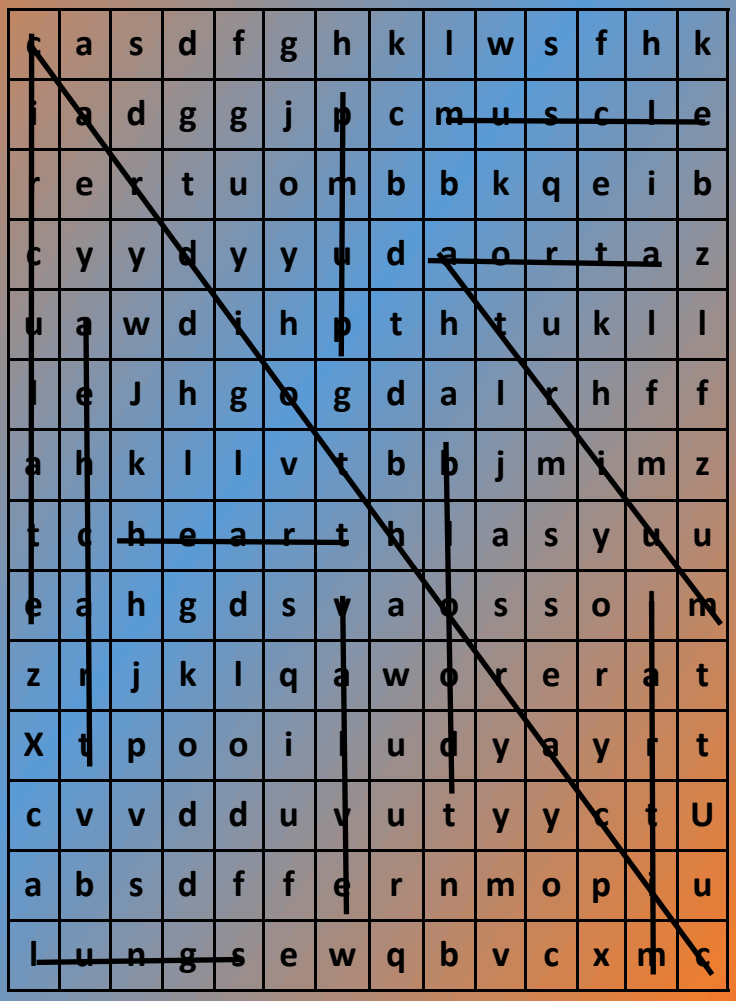
How to make a Model Heart

- Using the marker draw a picture of the heart on the box.
- Trace the lines (not the valves or the opening of the heart) with silicone.
- Stick the tubes in the opening of the heart.
- Pour the different colour resin on the different parts of the heart.
- Fill the syringe with water then attach it to the tubes.

How to make a Model lung

- First you cut the bottle in half.
- Stick two 9 inch balloons on the Y–tube.
- Then using the 12 inch balloon cut that in half and then stick it along the edge of the bottom (almost like a trampoline). This will be the diaphragm so when you pull it, the balloons (lungs) will expand.

Wordsearch answers



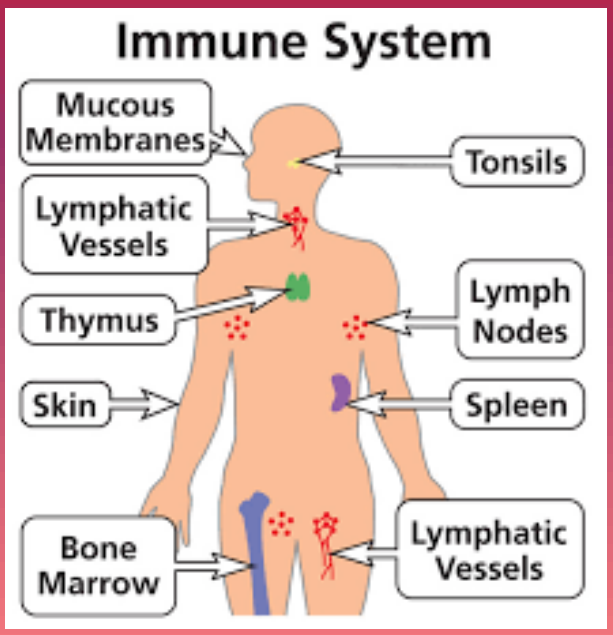
Anagram answers:

1. Cardiothoracic
2. Heart
3. Circulate
4. Trachea
5. Muscle
6. Valve

Our Immune System

The immune system is a complicated network of organs, cells and proteins that defend the body against infections. It remembers all of the germs it has defeated so that if the disease comes back, it can defeat it again.

This might seem very difficult to understand, but it is very simple.



Thymus

The thymus separates the blood into good and bad bits and watches over the contents of your blood. It makes cells that protect your body.

Bone Marrow

This is a spongy tissue that produces **red blood cells**, **white blood cells** and **platelets**.

Spleen

The spleen filters the blood and removes germs and old **red blood cells.**

Lymph

(pronounce as limf)

This is a liquid that has no colour that goes around the lymphatic system.

Lymphatic system

(limfatic)

This is made up of fragile tubes that have lots of different jobs such as: managing fluid levels in the body, react to bacteria and traps microscopic particles.

Complement System

The complement system is made of **proteins** that complements the things the antibodies do.

Antibodies

Antibodies fight microbes and toxins (poisons) by recognising **antigens.**

Skin

The skin contains special cells that help fight invading germs.

For words in bold, check the glossary on page 4

Facts

1. Ostriches are said to have the strongest immune system.
2. The human immune system is at least 600,000 years old.
3. If you keep taking the same medicine over and over again your body will become immune to it.
4. Women have a stronger immune system than men.
5. You can boost your immune system by eating well, being physically active, getting enough sleep and drinking lots of water.
6. Your immune system needs sleep.
7. Meditation may be good for your immune system.
8. Laughter might actually be the best medicine!
9. Playing in nature is good for your immune system.
10. Fever and inflammation are actually good signs that your immune system is working.
11. Stress damages your immune system.
12. Fighting illnesses helps your immune system to practice.
13. The earliest knowledge of the immune system goes back 2,000 years.
14. Coughs, headaches and vomiting are all signs of the immune system doing it's job.
15. You don't want to boost your immune system too much because it can lead to hyperinflammation which can seriously harm a patient.
16. The majority of your immune system originates in your gut.
17. Mushrooms can provide majors benefits to your immune system.
18. Antioxidants (molecules that protect your cells against free radicals which are molecules that are produced when your body breaks down food and when your exposed to radiation) which protect against aging and improves immunity.
19. Some people have little to no immune system in the body.
20. Insomnia (a sleep disorder in which you have trouble falling and/or staying asleep) deteriorates the immune system.
21. Bacteria in the gut assist the immune system.
22. Allergies are immune systems' reactions.
23. Too clean of an environment can lead to a weak immune system.
24. The human gut has 80% of the immune system.
25. Bone marrow is crucial for immune system development.

Recuperate

Wishing you well

As you recuperate;

Your return to health

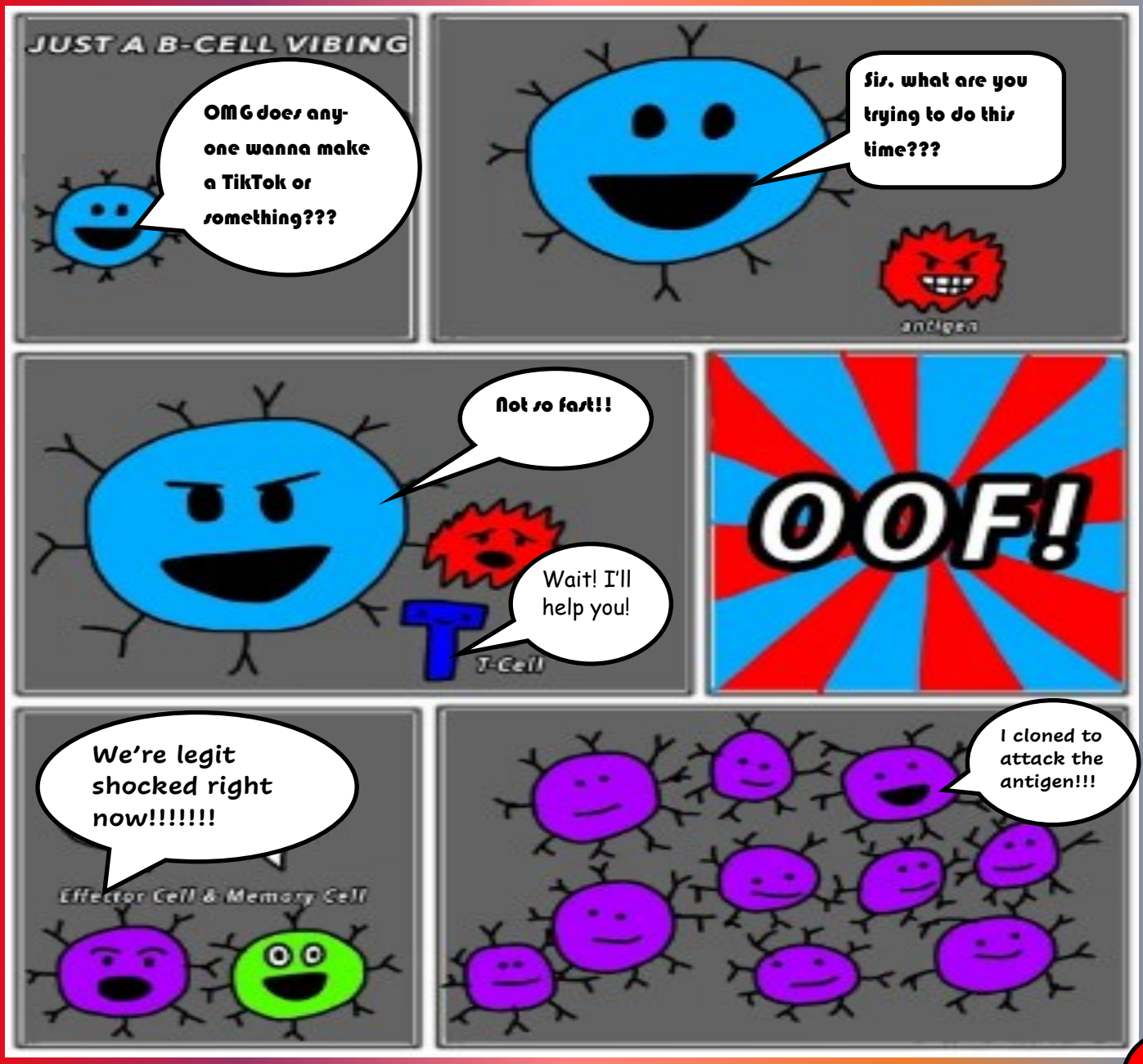
We anticipate.

Rest and feel better.

We have no doubt

That in no time at all

You'll be up and about.



Puzzle fun!!

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

Words to find:

Lymph, spleen, thymus , skin, system, bone, marrow

Glossary:

Red Blood Cells: this is the most common part of blood and each one is shaped like a disc. They carry oxygen from the lungs.

White Blood Cells: these ones fight infections and can be any shape.

Platelets: these ones create scabs that cover cuts.

Proteins: these are clumps of cells that make up your organs.

Antigens: these are shapes on the outside of a disease cell.

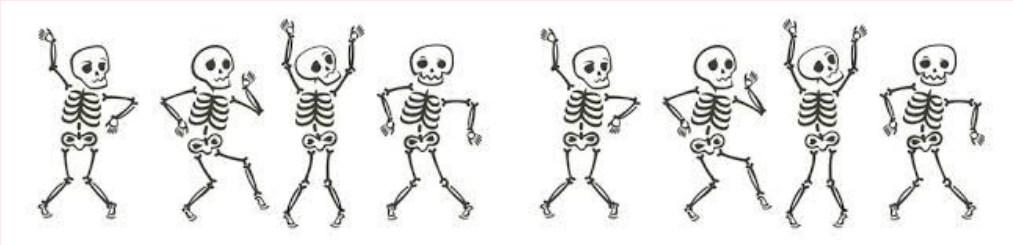
By Eashar Stotz 6F & Aarav Singh 6F

The Skeletal System

By Aneek Ghosh 4H

and

Noya Monga 4H



Cool facts

Not All Joints Move

While the joints in your knees move a lot, the joints in your cranium do not move.

The Shortest Bones

The stirrup bones in your middle ear are the shortest.

The Longest Bone

The femur (thigh bone) is the longest.

Smallest Bone

The ossicles are the smallest bone in the human body it is located in the ear.

Where You Have the Most Bones

You have 27 bones in each hand and 26 bones in each foot.

You Lose Bones

You are born with about 300 bones but only end up with about 206 because many bones fuse together as you grow.

The Bone That Breaks The Most

The collar bone is the bone that is prone to breaking the most often.

The Skeletal System

The Skeleton system is your body's central framework. It consists of bones and connective tissue, including cartilage, tendons and ligaments. It's also called the musculoskeletal system.

Watch these links

https://www.youtube.com/watch?v=ywDOiNEdJVc

https://www.youtube.com/watch?v=KWnvP97FdX0

https://www.youtube.com/watch?v=i42FSNA9bAY

https://www.youtube.com/watch?v=WSdXOCtoJsU

https://www.youtube.com/watch?v=vRuh9aBwUdM

How You Grew

As long as the tissue at the end of your bones (growth plates) stay open, you grow. Growth plates at the end of long bones in your arms and legs are usually closed in your teen years.

Your Skeleton Does Many Jobs

Your skeleton protects your brain, heart, and lungs. It helps you to move. It manufactures blood cells and it helps your entire system function by storing and regulating minerals.

New Skeleton

About every 7 years, you have a completely new skeleton because collagen in your bones replenishes itself.

Now try this quiz!

https://kidshealth.org/en/kids/ssquiz.html.

Complete the Activities

Human Body

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

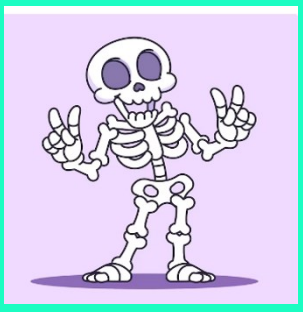
Brain	Elbow	Mouth	Jaw
Forehead	Ears	Intestine	Appendix
Diaphragm	Teeth	Finger	Heart
Kidney	Bones	Liver	Pupil

Unjumble the letters to find a type of bone.

C o l o a n l r b e

Clue — this is the most breakable bone in our body.

Some bonerlliant jokes and facts



2. Why are skeletons so calm?

Because nothing gets under their skin.

3. Why didn't the skeleton go to the dance?

Because he had no*body* to dance with.

4. What do you call a skeleton with no friends?

Bonely.

5. What's a skeleton's favourite plant?

A bone-zai.

6. Why can't skeletons play church music?

Because they have no organs.

Watch this clip: how to draw a cartoon skeleton

https://www.youtube.com/watch?v=qLsn2yCGgso

7. What do you call a skeleton who goes out in the snow?

A numb-skull.

8. Why didn't the skeleton laugh at the joke?

Because he didn't have a funny bone.

9. What does a skeleton order at a restaurant?

Spare ribs.

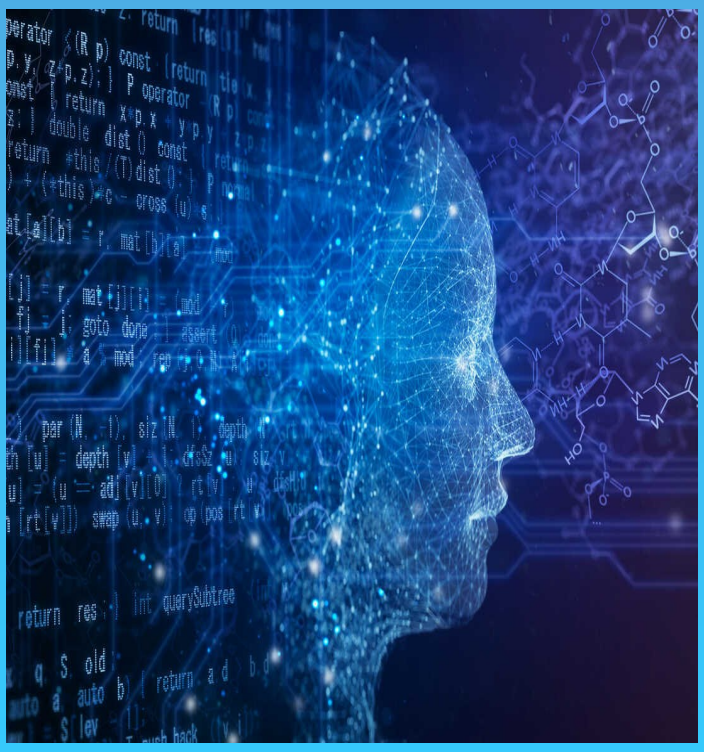
10. How do French skeletons say hello?

"Bone-jour!"

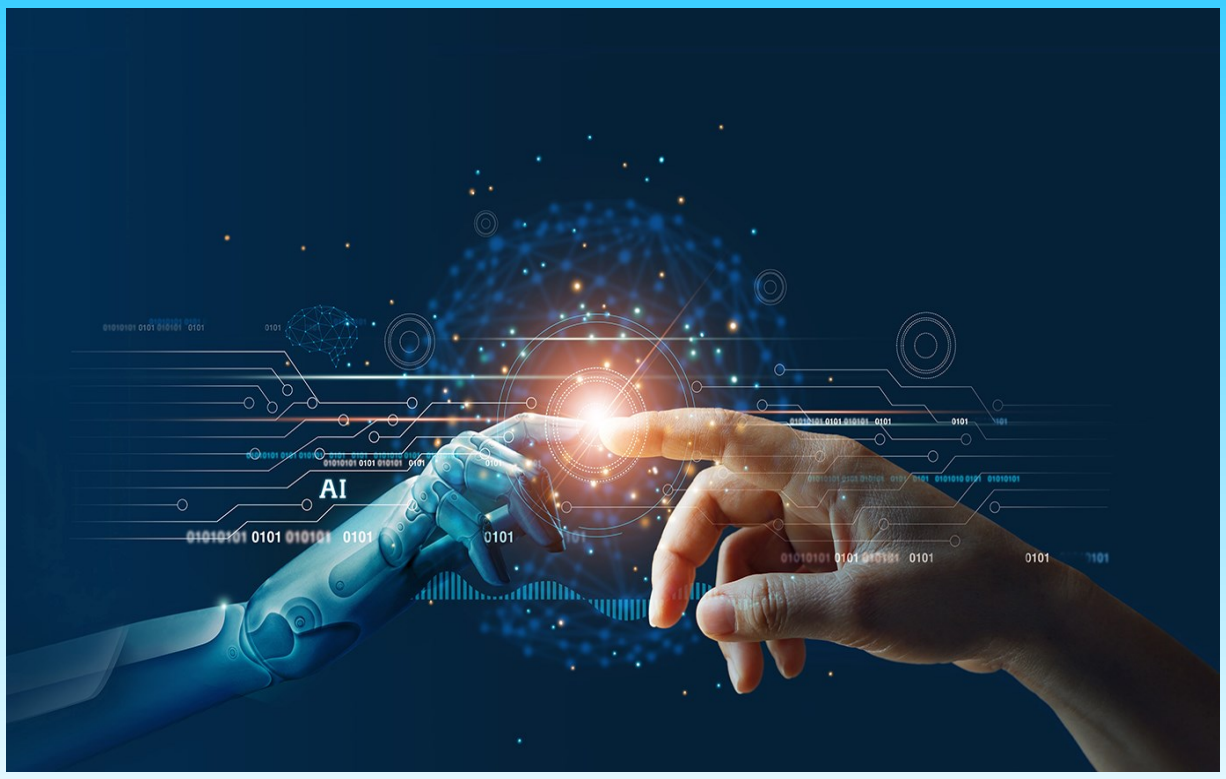
11. What do you call a skeleton who rings the doorbell?

A dead ringer.

AI And Health



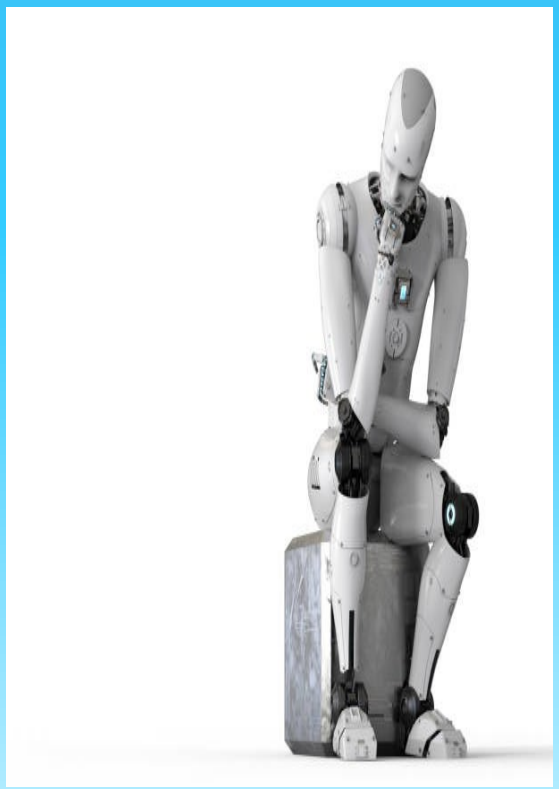
AI stands for Artificial Intelligence. Artificial Intelligence is complex programming that can replicate the abilities of human brains. AI robots can think for themselves, and can perform things humans would normally do. Many websites have sprung up that use AI, such as ChatGPT, DALL-E and Jasper. AI has been used for science for organising data, saving time and automating repetitive tasks. This has sped up many scientific discoveries, but what will happen to science in the future if we keep using AI?



Advantages of AI

AI makes it possible to execute formerly difficult tasks while more expensive options can not. It can work all the time without needing breaks and can work without hassle. AI can perform jobs that humans would find tricky to do. It allows you to multi-task and can execute many jobs in half the time humans would need. In hospitals, AI can diagnose what is wrong with a patient and can identify the best treatment for them. AI is also trained to scan MRIs, X-rays and CT scans for blood clots and tumours.

Disadvantages of AI



AI is really useful, but there are disadvantages too. AI has no creativity, so it cannot think outside the box. It may cause overreliance on technology and laziness in humans, which would be chaotic if the AI stopped working. Also, AI is ***extremely*** expensive. Engineering an AI robot does not come free. You may think that as AI is a computer system, it is unbiased. However, this is untrue. It is only as unbiased as the people programming it. So if the program is inflicted with biased thoughts, the AI will too. This may cause the AI to make unfair rejects or acceptances. Recently, there was a conference about the use of AI in the UK. Many government officials and important figures gathered at Bletchley Park to discuss the issue.

AI In The Future

AI is improving rapidly and is becoming more and more popular in labs, hospitals, and also general life. In the future, who knows what AI will have become?

AI is being developed to analyse images and diagnosis. This can help outline important areas on a scan and reduce human errors. AI is also being developed to identify new medicines. This could accelerate the process to bring new medicines to the market in response to deadly diseases.

AI also has the potential to rebuild how teams work in health systems. It could be applied to workforce planning and staffing coordination. This could completely change in planning treatment, especially with managing complex conditions such as cancer, which requires both physician and patient engagement.

AI could also revolutionise medical communication as poor communication can lead to poor outcomes in health. Communication between physicians and individuals can be improved with AI tools such as email or text communication. This will help reduce time on these tasks.

AI seems to be going in the right direction, but it is still not clear whether it will revolutionise healthcare, or prove to have more cons than pros....

AI TRIVIA & ACTIVITIES

1. What year was AI developed?
2. Who first invented AI?
3. What percentage of devices use AI today?

Artificial Intelligence Word Search

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

Artificial
Intelligence
Computer
Human
Information
Machine
Learning
Devices
Technology
Computer
Scientist
Robots
Algorithm
Senses
Programming
Robotics

Did you know?

Elon Musk says Neuralink, his company, implanted a wireless brain AI chip into a patient which the company hopes will be able to help with neurological diseases!

TRIVIA ANSWERS

1. 1956
2. ALAN TURING
3. 77%

By Anika Singh 6RS
& Deeyana Pandya 6F