

A DAY IN THE LIFE OF A ...

CAVEMAN

Hello, fellow human, and welcome to what you now call France about 30,000 years ago.



With the Neanderthals gone, we are the only human species left.



We're built a bit differently from Neanderthals, too.



Our species is called 'Homo sapiens', meaning 'wise man'.



Hmm ... no comment. AH, MY THUMB!



STONE TOOLS WERE STILL STATE OF THE ART.

Many early humans lived in caves - hence our nickname - often shared with scary wild animals. But we aren't all just 'cavemen' (or 'cavewomen') ...



In fact, I'm a cave ARTIST!



Here are some examples of my handiwork. We make these hand stencils by blowing pigment over our hands.



We also paint pictures of large, wild animals, such as woolly rhinos and horses.



But you're probably wondering why we create these images? Well ...



I'm afraid you'll have to remain in the dark! Nobody knows!

THE BIGGER PICTURE

FANTASTIC BEASTS

Cave paintings created by early humans are sometimes the only evidence we have of what long-lost animal species looked like. These animals - that are now all sadly extinct - can be seen painted on the walls of caves across Europe.



BIG CATS

Cave lions became extinct about 13,000 years ago and shared caves with early humans. Eek!



GIANT COWS

Aurochs were a species of wild cattle that died out by the 1600s.



EARLY RHINOS

Woolly rhinos locked horns in Europe and Asia over 10,000 years ago. They may have had black stripes round their middles.

ANCIENT DEER

These incredible antlers belong to an Irish elk - a giant deer that became extinct about 7,000 years ago.



MAGICAL BEAST

The identity of this strange spotted animal remains a mystery. It was painted in the Lascaux caves in France 17,000 years ago. Today, people call it 'the unicorn' - despite it having two horns!

A DAY IN THE LIFE OF A ...

PLAGUE CARRIER

Go away! This is Bergen in Norway in 1350 and I have the 'Great Pestilence'. Thanks to him!



YES! MY WIFE - COUGH! - BLAMES ME FOR - COUGH! - PASSING THE PLAGUE ON TO HER. COUGH!



80% OF VICTIMS DIED WITHIN EIGHT DAYS.

The disease started in Mongolia and has spread across Europe.



ORANGE - AREA AFFECTED BY 1350
← - SPREAD OF PLAGUE BY SHIPS

THE 'BLACK DEATH' - AS IT WAS LATER KNOWN - KILLED UP TO 200 MILLION PEOPLE BETWEEN 1347 AND 1351.

It causes these pus- and blood-filled swellings called buboes to appear on the neck, groin and under the armpits.

I MAY LOOK HORRID ... BUT I'M A SWELL GUY!



'Scholars' have various explanations for this plague.

A strange alignment of the planets Jupiter, Mars and Saturn on 20th March, 1345.



'Bad air' released by the action of earthquakes.

A punishment from God on the wicked.



IT'S RUDE TO POINT!

And to top it all off, I'm also being bitten alive by fleas. Cough! Shoo!



IN CLOSE-UP ...

I CAN'T HELP BEING INCREDIBLY HUNGRY. I'M A HUMAN FLEA AND I FEED ON HUMAN BLOOD. BUT I'M NOT ALONE ...



WE FLEAS TRAVELLED OVER ON A SHIP FROM ENGLAND IN THE FUR OF A BLACK RAT LIKE THIS ONE. MY RAT DIED, SO I FEED ON HUMANS, TOO.



US RATS HAVE TRAVELLED ALL OVER EUROPE AND ASIA AT GREAT SPEED ABOARD SAILING SHIPS. THE SEA MUST BE IN OUR BLOOD!



EVEN CLOSER UP ...

THE SEA ISN'T IN HIS BLOOD - WE ARE! WE'RE A DEADLY BACTERIUM SPREAD THROUGH FLEA BITES AND BETWEEN HUMANS. AND WE CAUSED THE BLACK DEATH.



SORRY ABOUT KILLING SO MANY MILLIONS OF PEOPLE AND CHANGING THE COURSE OF HISTORY.



JUST DOING OUR DEADLY THING!

I STILL THINK IT'S YOUR FAULT!



SORRY! COUGH!



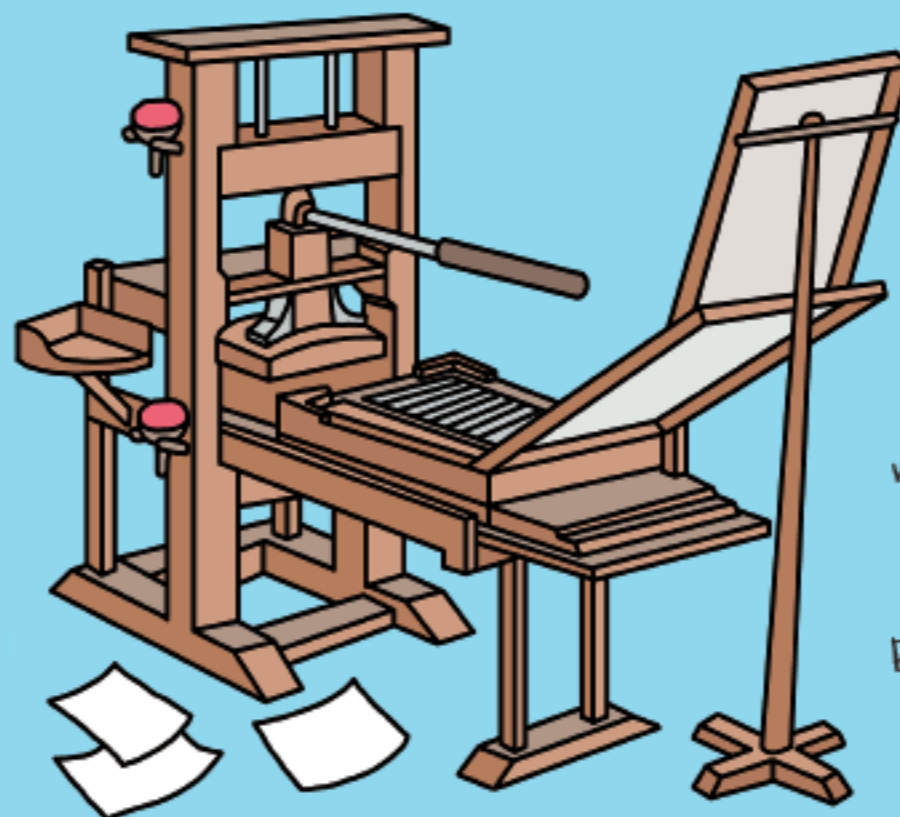
THE BIGGER PICTURE

PRESS EXPRESS

Printing on paper using hand-carved wooden type was one of ancient China's great inventions (see page 59). In Europe, the slow and laborious process of producing books by hand was revolutionized in the mid-15th century by German goldsmith Johannes Gutenberg, with his invention of the mechanical printing press.



JOHANNES GUTENBERG



Gutenberg's press used metal type made by pouring a hot lead alloy into moulds.

Gutenberg's most famous work was a Bible printed in 1455. At the time, Bibles were mostly found in churches. Mass-produced Bibles meant people outside the Church could read the book, and debate its contents.

Europe was still recovering from the impact of the Black Death, which had caused big changes in the structure of society. Survivors had inherited money and were able to move up in the world, and buy more things, such as books.

Being able to mass-produce books made them cheaper, so more people could own and read them, spreading the ideas that helped to build the modern world. This book you're holding now is a direct result of Gutenberg's great invention!

A DAY IN THE LIFE OF A ...

STICK OF CHALK

Katherine uses me and this chalkboard to work out the maths of the flight plans of spacecraft ... complicated stuff!



Translation: Hello! It's 1962 and I'm a piece of chalk!



Translation: And this is Katherine Johnson!



She's so clever that she's been called a 'human computer'.



BUT I DON'T NEED PLUGGING IN!

She works for the American 'NASA' space agency, and the lives of astronauts depend on her calculations being correct.



ALAN SHEPARD, FIRST AMERICAN IN SPACE IN 1961



JOHN GLENN, FIRST AMERICAN TO ORBIT EARTH IN 1962

In fact, John Glenn wouldn't launch until Katherine had given all the figures a thorough check.



AND SHE GOT IT RIGHT!

However, her life and those of her fellow African Americans weren't always considered equally valuable.

BLACK-ONLY CANTEEN

WHITE-ONLY CANTEEN

Black and white workers were kept apart, or 'segregated'.

Katherine's name was left off the research papers she worked on and she was kept out of meetings.



THIS DOESN'T COMPUTE!

But this changed in 1958 when Katherine joined NASA, which banned segregation.



In 1969, Kath's maths helped to put the first man on the Moon.

I WONDER WHEN WE'LL SEE A WOMAN UP THERE ...



IT STILL HASN'T HAPPENED.

THE BIGGER PICTURE

CIVIL RIGHTS

Slavery had been abolished in America in 1865, but it didn't put an end to discrimination against Black citizens. Nearly a century later, Black Americans started a struggle for equal rights known as the Civil Rights Movement.



ROSA PARKS

In December 1955, a woman named Rosa Parks took a seat on a bus after a long day at work in Montgomery, Alabama. Segregation laws at the time stated that Rosa had to sit in an area at the back of the bus, which she did. When the bus driver ordered Rosa to give up her seat for a white man, she refused and was arrested. Her action ignited calls for equal rights.

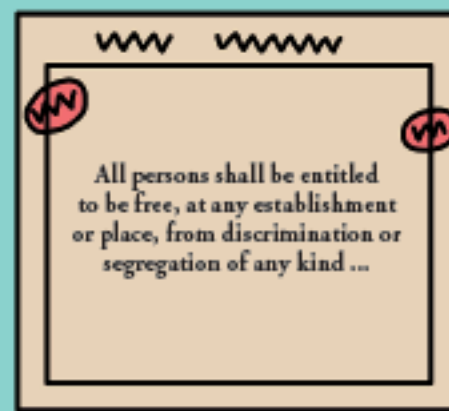
MARTIN LUTHER KING, JR

Inspired by Rosa's protest, a Baptist minister called Martin Luther King, Jr co-ordinated a boycott of Montgomery's buses and led further non-violent protests calling for equal rights. In 1963, he helped to organize a peaceful march on the US capital, Washington DC. It was here that he delivered his famous 'I have a dream' speech, which became symbolic of equal rights and freedom for all people. The next year, the Civil Rights Act was signed.



THE CIVIL RIGHTS ACT, 1964

In 1964, the US president Lyndon B. Johnson signed the Civil Rights Act, watched by Civil Rights leaders including Martin Luther King, Jr. The act banned segregation in public places and discrimination in places of work.



All persons shall be entitled to be free, at any establishment or place, from discrimination or segregation of any kind ...