

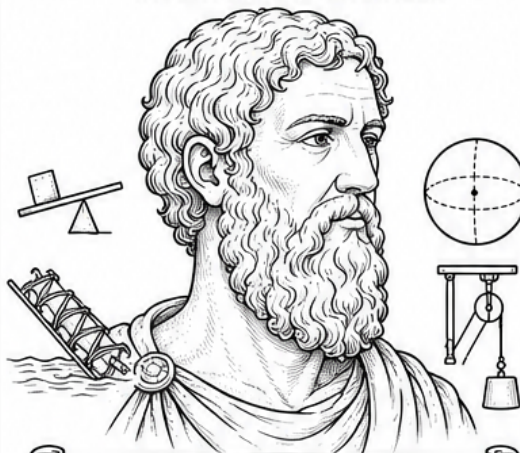
ARCHIMEDES

c. 287 – c. 212 BCE

GREAT GREEK MATHEMATICIAN,
INVENTOR AND ENGINEER

LIFE

- Archimedes was born in Syracuse, on the island of Sicily, around 287 BCE.
- His father, Phidias, was an astronomer.
- Ancient writers say he studied in Alexandria, Egypt, where he learned from the greatest teachers of the time.
- He returned to Syracuse and spent his life there, solving problems and inventing amazing machines.
- He served King Hiero II of Syracuse and helped protect the city.
- He died in 212 BCE during the Roman siege of Syracuse.

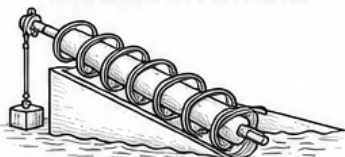


"Give me a place to stand
and I will move the Earth."
– Archimedes

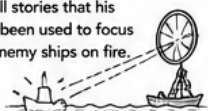
ACHIEVEMENTS

- Made many important discoveries in mathematics, geometry and science.
- Invented powerful machines to help lift heavy objects, move water and defend the city of Syracuse.
- Discovered the principle of buoyancy while stepping into his bath – "Eureka!"
- Calculated an accurate approximation of π and discovered the relationship between a sphere and its circumscribing cylinder.
- Wrote many books about mathematics, machines and how things work.
- His ideas inspired scientists and engineers for more than 2,000 years.

AMAZING INVENTIONS

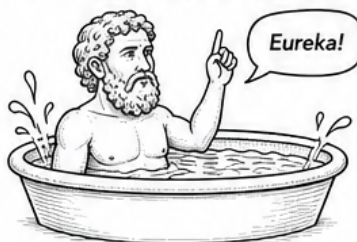


- ☆ Ancient tradition credits Archimedes with inventing the screw to lift water from a lower level to a higher level.
- ☆ He designed machines to lift heavy objects using pulleys and levers.
- ☆ He built the "Claw of Archimedes", a device used to grab and pull enemy ships.
- ☆ Ancient writers tell stories that his mirrors may have been used to focus sunlight and set enemy ships on fire.



THE PRINCIPLE OF BUOYANCY

Archimedes discovered that when an object is placed in liquid, it is pushed up by the liquid.

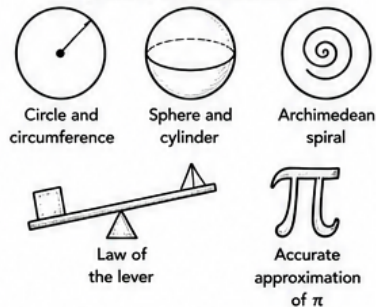


Ancient writers tell how Archimedes discovered the principle of buoyancy while taking a bath and cried, "Eureka!"

This discovery explains why ships float and why objects weigh less in water. It is used every day in our lives!

MATHEMATICS & GEOMETRY

Archimedes made many discoveries in geometry and measurement.



He used maths to solve real-world problems and to understand the world around him.

HOW ARCHIMEDES WORKED

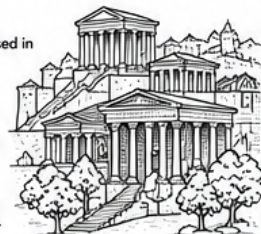
- Loved solving difficult maths problems.
- Carefully observed how things worked.
- Used experiments to test his ideas.
- Drew diagrams to explain his discoveries.
- Invented clever machines to solve practical problems.

FAMOUS DISCOVERIES

- The principle of buoyancy
- The Archimedes screw
- The law of the lever
- An accurate approximation of π
- The relationship between a sphere and its circumscribing cylinder

LEGACY

- Archimedes' ideas are still used in science, engineering and technology today.
- He is considered one of the greatest mathematicians and inventors of all time.
- His work shows the power of curiosity, creativity and logic.



THE LIFE OF ARCHIMEDES

c. 287 BCE
Born in Syracuse,
Sicily.



c. 270s BCE
Ancient writers say
he studied in Alexandria,
Egypt.



Returned to
Syracuse and
began his work as a
mathematician and
inventor.



Ancient tradition credits
him with inventing the
Archimedes screw and
many other amazing
machines.



Helped King Hiero II
and defended
Syracuse from
enemies.



212 BCE
Died during the
Roman siege of
Syracuse.



DID YOU KNOW?

Archimedes asked for a sphere inside a cylinder to be carved on his tomb because he was especially proud of this discovery.



KEY WORDS

Mathematician – a person who studies numbers and shapes.
Engineer – a person who designs and builds machines.
Buoyancy – the upward push of a liquid or gas on an object.
Lever – a simple machine that helps lift or move objects.
Pi (π) – the number about 3.14159... used in circles.

AMAZING FACT!

Archimedes invented machines more than 2,000 years ago that are still used in many forms today!

