Muslim Events

European Events

"The Astrolabe is the most important astronomical calculating device before the invention of digital computers and the most important astronomical observational device before the invention of the telescope".

ASTROPHYSICIST HAROLD WILLIAMS

ca 635
Al-Shifā is appointed the first female health & safety minister by Umar, second caliph, in the city of Madina, and then in Basra.

632
Prophet Muhammad dies and Abu Bakr becomes the first caliph, or Muslim state ruler.

691
Building begins of the Dome of the Rock Mosque in Jerusalem.

Dome of the Rock Mosque

654
Islam has spread to all of North Africa

Distillation

ca 722
Jabir Ibn Hayyan is born. Known widely as 'Geber', is also held to be the first practical alchemist, an advocate of extensive experimentation. He is considered the '**Father of Chemistry**'.

787
Building begins of the Great Mosque of Córdoba.

ca 777
Astrolabe maker and astronomer Al-Fazari dies.

Astrolabe

786
Caliph Harun al-Rashid establishes the "House of Wisdom" in Baghdad.

Gold Mancus

785
King Offa mints a Gold Mancus coin, imitating the gold dinar of Caliph al-Mansur

813
Caliph Al-Ma'mun expands the House of Wisdom; the translation movement intensifies.

801
Al-Kindi is born, pioneer in **cryptography** and cryptanalysis, discovering methods that allowed greater encryption and code breaking. He wrote the book, *A Manuscript on Deciphering*, devising several new methods of breaking codes.

Cryptography

858
Astronomer Al-Battani is born in Turkey. He is a known astronomer and mathematician, having worked in Baghdad. He wrote extensively on **celestial globes** with accuracy. He determined the solar year being 365 days, 5 hours, 46 minutes and 24 seconds

Al Qarawiyin University

859
Al-Qarawiyin University in Fez is completed by Fatima al-Fihri.

887
Abbas Ibn Firnas, a humanitarian, technologist and chemist, pioneered **unpowered flight**, dies in Córdoba.

Abbas ibn Firnas's flight

872
Ahmed ibn Toloun, Abbasid governor of Egypt, establishes the **first organised hospital** in Cairo and included the first department for mental diseases.

Ibn Toloun Hospital

"Seek knowledge from the cradle to the grave."

MUSLIM PROVERB

950
Ibn Yunus is born, he invented the Raqqas (pendulum) for time-keeping.

950
Al Farabi from Baghdad dies. A philosopher and musician, he invented the ancestor of violin.

944
Iliyyah al-Astrubali is born, she continued her fathers work of making astrolabes.

Al-Azhar University

A rababah, ancestor of the violin

973
Al-Biruni is born. The polymath, astronomer, mathematician and geographer measured the circumference of Earth.

Illustration of Al-Biruni's astronomical works.

972
Al-Azhar University is founded by the Fatimids in Cairo

1009
Astronomer Ibn Yunus dies in Cairo, leaving thousands of accurate records, including 40 **planetary conjunctions** and 30 lunar eclipses.

Mapping the sun's position

1007
Earliest surviving Muslim Tower, found in Fort of Beni Hammad, eastern Algeria.

Muslim Tower, Algeria

1065
The Nizamiyya madrasa, the **first school** in Baghdad, is established by Nizam al-Mulk.

"The World is a book, and those who do not travel read only a page."

ST. AUGUSTINE, CHRISTIAN PHILOSOPHER

1066
The Norman Conquest of England begins a flow of Muslim motifs and ideas into that country.

1096
The first crusades begin

1091
Abu Marwan Ibn Zuhr (Avenzoar) is born. He is a pioneer of experimental surgery and co-author, with Ibn-Rushd (Averroes), of an original encyclopaedic medical text. His two daughters became doctors.

1085
Christians take Toledo. A centre at Toledo is established, translating Arabic books to Latin.

Translathors

1145
Jabir ibn Aflah invents an observational instrument known as the **torquetum**, a mechanical device to convert between spherical coordinate systems.

1143
Robert of Chester translates the Quran and works of Al-Khwarizmi, a mathematician, astronomer and geographer, from whose name the word **algorithm** comes.

625 650 675 700 725 750 775 800 825 850 875 900 925 950 975 1000 1025 1050 1075 1100 1125 1150 1175

637
Islam spreads to Persia, Palestine, Syria, Lebanon, and Iraq and later to Egypt.

644
First **windmill** construction for use of wind-power ordered in the Muslim world during the Caliphate of Umar Ibn al-Khattab

A medieval windmill

"There can be no education without books."

ARABIC PROVERB

661
The Umayyad dynasty rules the caliphate from Damascus.

711
Islam reaches Spain.

Old street in Córdoba, Spain.

Algebraic Equations

780
Mathematician Al-Khwarizmi is born. His book *Algebra wal Muqabala* developed modern algebra. **Algebra** was a unifying theory which allowed rational numbers, irrational numbers, geometrical magnitudes etc to all be treated as "algebraic objects".

795
First **paper mill** in Baghdad, Iraq.

Papermaking industry

800
Caliph Harun al-Rashid presents Charlemagne (Charles the Great) with an elaborate **water clock** that struck the hours.

Al Jazyari Water Clock

828
Abu Mansur opens Al-Shammasiyah Observatory, near Baghdad

Islamic Astronomy

850
Banu Musa brothers publish their famous book on mechanical devices and automatic machines, *Book of Ingenious Devices*.

864
Al-Razi (Rhazes) is born. A physician, chemist and medical teacher. He is considered the "**father of clinical and experimental medicine**". His writings were later translated into Latin. He also wrote the **first soap** recipe. The word soap comes from Arabic '*Sabun*'. Shk Dean Mahomed introduced shampooing to the UK in Brighton, he was the '*Shampooing Surgeon*' to King George IV & William IV.

Al-Razi, known as "Hippocrates of the Arabs"

895
Ibn al-Jazzar al-Qayrawani (Algizar) is born. He wrote the first independent book on paediatrics and **social paediatrics**: *Risalah fi Siyaat as-Sibyan wa Tadbirihim (A treatise on Infant and Child Care and Treatment)*

913
Abbasid Caliph Al-Muqtader issues the first licensing regulation for medical practice. He established the hospital of Al-Muqtadri in Bab al Shammia Baghdad; his mother established Al-Sayyida Hospital in Souq Yehia, Baghdad

936
Surgeon Al-Zahrawi (Abulcasis) is born in Córdoba. The greatest medieval surgeon from the Islamic world, considered as "**Father of Modern Surgery**". He authored 30 volume encyclopedia of medical practices, *Kitab al-Tasrif*. He revolutionised medical sciences with advances in surgical procedures and surgical instruments, many of which are still used today. Also wrote the first original Muslim work in Cosmetology.

Al-Zahrawi

965
Physicist Ibn al-Haytham is born. His discoveries and theories revolutionized optics, recorded in ***Book of Optics***. He laid foundation for optical devices like **camera** (qamara in Arabic).

Ibn al-Haytham's Book of Optics

Ibn al-Haytham Camera Obscura

980
'**Prince of Physicians**' Ibn Sina (Avicenna) is born. He authored the 13-volume ***The Canon of Medicine***, which was the standard medical text across Europe & Islamic world up until the 17th century.

Ibn Sina's Canon

999
Building begins of Bab Mardam Mosque in Toledo, which uses a unique form of rib vaulting.

Bab Mardum Mosque

Constantine the African

1050
Constantine the African moves from Tunisia to Salerno, initiating the transfer of Islamic medicine to Europe

1099
Al-Idrisi is born. He produced a **world map** for Norman King Roger II of Sicily.

Al-Idrisi's world map

He was the distinguished geographer of the Sicilian Court of Roger II. He produced *Book of Roger*', an **atlas of seventy maps** which contained the best geographical knowledge in Europe at that time. He also produced the first known globe, produced on a 400kg ball of silver.

Silver globe presented to King Roger II

1126
Ibn Rushd (Averroes) is born. He wrote an extensive **corpus of philosophy** in which he stated significant theories in epistemology, natural philosophy and metaphysics. An accomplished physician, he wrote the famous treatise *Al-Kulliyat fi al-tib*, known in Latin as '*Colliget*'

1136
Al-Jazari is born, famous work on engineering, wrote *The Book of Knowledge of Ingenious Mechanical Devices*' His most famous **Elephant Clock** was water powered United Nations clock with a Multicultural meaning.

1140
Daniel of Morley travels to Córdoba to learn mathematics and astronomy, returning to lecture at Oxford.

Al-Nuri Hospital

1154
Nur-al-Din Zangi establishes Al-Nuri Hospital in Damascus, a large **teaching hospital**. Al-Nuri Hospital was a revolutionary Damascene hospital where all were given free treatment.

Water powered Elephant Clock