History and heritage

Learning objectives
In this unit you will:

• consider factors that influenced life in the Arabian Peninsula before Islam
• describe the impact of the Rashidun Caliphate expansion on the region
• discover a variety of Islamic buildings constructed during the expansion of Islam
• discuss the influence of religion on art and literature
• describe the impact of Islamic scholars on mathematics and science
• examine the leadership and expansion of the Umayyad Caliphate.

Overview
Around the world, we can see evidence of the people who came before us. We can see how they have influenced the various countries and regions of the world. The arrival of Islam was a major development in the Middle East region. Islam changed the way in which people lived and worshipped. It also shaped an empire that made important medical, scientific, artistic and military advances over many centuries.

In this unit you will learn about the arrival of Islam and the dramatic changes that took place. The unit explores the important people from this time and the lasting impact that they and their families made on life in the Middle East region. It looks at some of the region’s important buildings and settlements that still survive today, and considers the heritage and architecture of these places.

Word cloud
architecture  caliphate  calligraphy
civil war  dynasty  scholar  siege

The Dome of the Rock (Qubbat al-sakhrah in Arabic) in Jerusalem. Can you describe any architectural features of this building?

Arches and mosaics at the Dome of the Rock in Jerusalem

Abu Musa Jabir ibn Hayyan, also known as Geber, was an Arab scholar born in 721 CE. He studied many subjects including chemistry, astronomy, engineering and geology.

Talk about
There are many examples of early Islamic architecture all over the Middle East and in many parts of North Africa and Europe. Architects and designers created impressive places of worship and other buildings. They introduced space and light into the architecture of these buildings. Why do you think the early architects designed buildings like these? What factors do you think early architects needed to consider?

How has early Islamic architecture influenced any modern buildings that you know about?

Fact finder
Before the arrival of Islam, tribal people lived in the harsh climates of the Arabian Peninsula.

Find out about one of the tribal groups in the Arabian Peninsula, for example the Quraysh. Describe how they lived and what everyday life was like for them.
What was life like in the pre-Islamic Arabian Peninsula?

Learning objectives
- Explain the factors that influenced life in the Arabian Peninsula before Islam.
- Discuss the culture and religious beliefs of people in the region before Islam.
- Consider how the climate and landscape of the Arabian Peninsula influenced the political and social structures of the time.

Before the arrival of Islam, no major religious or political power dominated the Arabian Peninsula. Different Arab tribes survived in the harsh, unforgiving landscape and climate of the peninsula. None of the strong, powerful civilisations of the time was able to conquer and rule over the Arab people. The people of the Arabian Peninsula called this region Jazirat al-Arab (‘Island of the Arabs’). They called it an island because it was almost completely surrounded by seas and because it was isolated from the outside world. Which groups of people lived in the region? What were their beliefs? What political systems did they have?

The Arabian Peninsula

The Arabian Peninsula has a dry, harsh climate, with limited water supplies, difficult travelling conditions and extreme heat. Because of this, the people of the region were isolated from other regions. The physical landscape discouraged other peoples from invading. So no other peoples were able to influence religion and politics in the region, or change the Arabs’ way of life.

For example, the Romans attempted to invade in 24 BCE, but failed. They were able to conquer some land in the north of the peninsula, but were unable to cross the Arabian Desert and push further south.

The Persian Empire that ruled to the north and east also attempted to invade parts of the Arabian Peninsula, mostly because they wanted to control the trade routes to and from Europe. The Persians came into conflict with the Romans, who also wanted to control this area. As a result, the Romans and Persians fought great battles to gain control of the land surrounding Syria and Iraq, but neither side was able to move down into the Arabian Peninsula. The Arab people of the peninsula were never controlled by governments from far away, and they remained independent.

The people of the Arabian Peninsula

Most people lived in tribes and had a strong sense of family. Many people were nomads, travelling around to find food and water for themselves and their animals. They followed the stars to navigate across the deserts when they moved from oasis to oasis. Some tribes, such as the Quraysh, were merchants who lived in the settlements that were developing in the south and east of the peninsula. These settlements, such as Yathrib (now Madinah, Saudi Arabia) and Muza (near present day Mocha, Yemen), were important trading centres. Desert tribes came to the trading centres to exchange meat, wool, milk and animal skins for spices and weapons.

The people of the Arabian Peninsula were influenced by a number of religions. For example, some Arabs converted to Christianity because traders had brought the religion to Arabia. However, most people were polytheistic and worshipped a number of different gods and idols.

In the west of the Arabian Peninsula, the Hejaz region stretches along the Red Sea coast. One of the most populated settlements in the region was Makkah, where two trade routes joined. The population grew around the time when the Prophet Ibrahim, his wife and his son settled there. During this time, travellers to the area listened to the teachings of Ibrahim. He rebuilt the Ka’ba in Makkah, which later became the holiest place in Islam. At the time it was built, however, it was surrounded by many religious idols and images from many different tribes and nations.
The Nabataean Kingdom

The Nabataean people developed a very large kingdom that grew from the fourth century BCE to include parts of Jordan, Egypt, Syria and Saudi Arabia. The Nabataean capital was Petra (in modern-day Jordan), where many of the buildings were carved into the red sandstone cliffs. Originally the Nabataean people were nomadic, but they discovered how to direct and store water using dams, canals and reservoirs. This gave them a daily supply of fresh water which allowed them to remain in one place.

The city of Petra was located on a trade route. Many caravans travelled along the route from Asia and southern Arabia. When traders arrived in the city, the Nabataeans took payment for their stay, as well as charges on the goods that entered the city.

Petra was conquered by the Romans in 106 CE. The Romans used other trade routes and so the city went into decline. In 363 CE, Petra was hit by an earthquake. The last inhabitants abandoned the city – after further earthquakes – in 633 CE.

The Himyarite Kingdom

The Himyarite Kingdom, also called the Homerite Kingdom, was established in ancient Yemen in 110 BCE. Its capital city was Zafar, near today’s capital, Sana’a. The economy was based on farming and trade. Large ships sailed to the African coast, where they collected ivory, and then sailed back to sell the ivory to the Romans. As a result of this trading relationship, the Himyarite people were viewed as allies of the Romans. Some of the Himyarite kings even converted to the same religion as the Romans. Over time, the Himyarites took control of many of the key trade routes in the region and became very powerful and wealthy. However, over time, the Romans developed their own trade routes and relied less on the Himyarites’ routes, so the kingdom declined. In around 520 CE, invaders defeated the Himyarite people and they went back to a nomadic way of life.

The Bedouin

The Bedouin were a nomadic people who lived in the Arabian Peninsula from around 850 BCE. They followed ancient tribal traditions and travelled along routes that had been used for many years. Goats and camels were very important to the early Bedouin. They used these animals for meat, dairy products and wool. They also made money by transporting goods and people across the desert.

The leader of each Bedouin group was an elder or a sheik. The heads of the families in the tribe elected the leader to this role. The Bedouin code of ethics included loyalty to their tribe, respect for women, and a sense of duty to their family. The Bedouin people were also extremely hospitable to strangers.

Did you know?

Petra was classified as a UNESCO World Heritage Site in 1985. UNESCO also described Petra as ‘one of the most precious cultural properties of man’s cultural heritage’.

Activities

1. Why did powerful groups in ancient times find it difficult to invade the Arabian Peninsula and conquer the Arab groups who lived there?
2. Find out more about the early years of the Ka’ba in Makkah. Write five to ten facts about its creation, for example: explain what it was used for; describe its location; explain why it is so important.
3. Find out more about one of the pre-Islamic groups who lived in the Arabian Peninsula. Create a five-minute talk to give to the rest of the class. Your talk should include information about where and how the group lived. Include the following topics: where they lived; why they lived there; everyday life; family; trade; their existence today.
In 570 CE, a man was born who completely changed the nature of religion in the Middle East region. His message inspired a new generation of followers and changed people’s beliefs. Previously the people of the Arabian Peninsula had followed a number of different religions. Now, one single religion – Islam – began to spread rapidly across the regions. Today, Islam remains one of the fastest-growing religions in the world. How and why did Islam expand across the region so quickly? What impact did it have? What changes did it cause?

Muhammad (Peace Be Upon Him), the Prophet of Islam

Muhammad (Peace Be Upon Him) was born in Makkah into the Quraysh tribe in 570 CE. His uncle, Abu Talib, was an important merchant in Makkah and Muhammad (Peace Be Upon Him) helped in his uncle’s trading business.

Muhammad (Peace Be Upon Him) became an important person in the city after he started working for a wealthy widow, Khadija. They married and had two children. Muhammad (Peace Be Upon Him) had a busy life but made time to meditate alone in a cave on Mount Hira.

In 610 CE, the angel Jibril visited Muhammad (Peace Be Upon Him) at the cave and told him, ‘Read’. However, he had never learned to read or write so the angel began to speak the words. Muhammad (Peace Be Upon Him) immediately knew that these words came from God. He listened carefully and remembered everything the angel said. During the rest of his life, Muhammad (Peace Be Upon Him) continued to receive revelations, and scribed recorded the words. These revelations form the text of the Holy Qur’an.

Muhammad (Peace Be Upon Him) went into the city of Makkah to preach the angel’s words. His simple message – that there is no God but Allah, and that people should live their lives in complete submission to the will of Allah – was popular and he attracted many followers. However, powerful people in Makkah felt threatened by Muhammad’s (Peace Be Upon Him) popularity and opposed him, so he took his followers to Yathreb (Madinah) in 622 CE. This journey is known as the Hijrah and is the starting point of the Islamic calendar. Muhammad (Peace Be Upon Him) and his teachings were welcomed in Yathreb and an ummah thrived there. Many people converted to Islam.

The spread of Islam

In the eighth year of his migration, Muhammad (Peace Be Upon Him) had gained so many followers that he was able to return to Makkah, with a large army, and conquer the city. From this time on he was accepted as the true final Prophet of God and Makkah became the centre of the Muslim world. The people of the surrounding tribes became Muslims, and rulers and tribes from other areas of the Arabian Peninsula gradually accepted Islam. By the time of his death, Muhammad (Peace Be Upon Him) was accepted as the leader of most of Arabia.

The Rashidun Caliphate

Muhammad (Peace Be Upon Him) continued to lead his community until his death in 632 CE. His leadership was followed by men who had learned directly through his teachings. These leaders were called caliphs. The rule of the four caliphs immediately after Muhammad’s (Peace Be Upon Him) death is known as the Rashidun (which means ‘rightly guided’) Caliphate. This caliphate ruled for 30 years.
**FACT FILE**  The Rashidun Caliphate, 632 CE to 661 CE

**Abu Bakr as-Siddiq**
The first caliph: 632–634 CE. He was a close friend of Muhammad (Peace Be Upon Him) and was the father of Muhammad’s (Peace Be Upon Him) wife.

**Key facts:**
- He sent Muslim armies around the Arabian Peninsula to make sure that the tribes who had accepted Islam remained loyal.
- He sent armies to conquer lands beyond the Arabian Peninsula. They invaded and conquered Iraq in 633 CE, then Syria in 634 CE.
- He nominated Umar Ibn al-Khattab to become the new caliph when he died.
- He died of a fever, aged 62, in 634 CE.

**Umar Ibn al-Khattab**
The second caliph: 634–644 CE. He had advised Abu Bakr, who chose him as his successor.

**Key facts:**
- He was a brilliant and just army leader.
- By 640 CE, his armies controlled Syria, Palestine and Mesopotamia. By 642 CE, they ruled Persia.
- He created a political structure to ensure that the lands he conquered remained under control.
  - A governor (amir) was appointed to control each area of the caliphate.
  - He introduced a register to record and pay salaries to officers who fought alongside him.
- People in the conquered lands were not forced to convert to Islam and were left to retain their own customs and religions.

**Uthman ibn Affan**
The third caliph: 644–656 CE. He was a member of the Umayyads, who opposed Muhammad (Peace Be Upon Him) at first. However, Uthman later became a close supporter of Muhammad (Peace Be Upon Him). The council of Arab leaders named him as caliph.

**Key facts:**
- He made changes to some of Umar’s systems and was not as strict with money. As a result, some people in the Rashidun Caliphate became very wealthy during his leadership.
- He formed a navy that allowed the expansion of the caliphate into the Mediterranean area. He invaded and conquered Cyprus, Persia and large parts of Northern Africa.
- He assembled the official version of the Qur’an.
- He was murdered in 656 CE during a rebellion against him.

**Ali ibn Abi Talib**
The fourth caliph: 656–661 CE. He was Muhammad’s (Peace Be Upon Him) cousin and son-in-law. The council of Arab leaders in Makkah chose him to be caliph. He was a loyal soldier who had remained devoted and brave when each new caliph was appointed.

**Key facts:**
- Ali believed that some of Uthman’s governors were dishonest and untrustworthy and he dismissed them. Muawiya, the governor of Syria, chose to fight Ali and a civil war broke out.
- There was no clear winner in the war: Muawiya claimed to be the real caliph and took control of Syria and Egypt.
- In 661 CE, a group of Muslims who did not support Ali’s rule stabbed him with a poisoned sword when he went to pray at the Kufa mosque (in Iraq).

**The names of the Rashidun caliphs (Abu Bakr, Umar, Uthman and Ali) in Arabic**

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**Activities**

1. Explain why the Islamic calendar starts from the year 622 CE.
2. Produce a timeline to show the story of Islam from the time Muhammad (Peace Be Upon Him) received his first messages from God to the day that Ali ibn Abi Talib was murdered.
3. Investigate one of the famous battles that took place at the time of the Islamic expansion. Write a news report explaining what happened and why. You might like to choose one from: Battle of Badr, Battle of Uhud, Battle of the Ditch. Write a headline and an interesting opening paragraph. Also include dates, the location of the battle, who fought, how they fought, and the outcome of the battle.
2.3 History and heritage

**What impact did early Islam have on architecture?**

**Learning objectives**
- Examine the different styles of Islamic architecture.
- Discover a variety of Islamic buildings constructed during the expansion of Islam.

As the Islamic Empire expanded, it gained in wealth and power, and its borders reached into Syria, Palestine, Mesopotamia, Persia, northern Africa, and parts of Europe. The empire covered lands with different climates. It included people with many different cultures, ideas, traditions, and ways of expressing religious beliefs. Islamic architecture had a big impact on the lands and people that the Islamic armies conquered. What influence did early Islam have on architecture? What structures did the Muslim architects create? What other empires also had an influence on architecture at the time?

**Early Islamic architecture**

The early Islamic architects took and adapted many different styles and building design ideas from around the Islamic Empire. These included large decorative friezes (from Syria), pointed domes (used in Byzantine buildings), horseshoe arches (from Persia), and vast meeting halls and prayer rooms (from various Christian buildings). Mathematical and geometric patterns were common in Islamic architecture, and ordered repeating patterns covered huge areas. These patterns can be seen in many buildings across the lands of the Islamic Empire.

Other architectural features that can be found in Islamic buildings include the following.

**Courtyard:** Courtyards were a common feature in many palaces, schools, universities, and homes built throughout the Islamic Empire. Architects included courtyards in their buildings to provide natural light, as a place to grow plants, and as a cool area during the high temperatures of the summer. A traditional Islamic courtyard is called a **sahn.** It often had a **howz,** which was a cleansing pool with a domed pavilion over it.

**Hypostyle hall:** This architectural feature probably came from Persian meeting halls. Hypostyle halls are large open spaces with a roof that rests on pillars or columns. They became a key feature of Islamic architecture. Often, they were found in places where large numbers of people gathered for prayers or meetings.

**Vaulting:** This is the name for arches in a roof or ceiling. Architects used vaulting to create more space and height inside their buildings. This architectural feature originally came from Roman and Persian designs.

**Minaret:** Minarets were originally used as watchtowers. They then became a common feature in Islamic architecture. Often, they are close to or part of a mosque. A muezzin calls people to prayer from the top of the minaret five times each day. The oldest remaining minaret is part of the Great Mosque of Kairouan in Tunisia.

**Places of worship**

As Islam spread, the growing number of Muslims needed places to worship together. As a result, many thousands of mosques were built throughout the Islamic Empire. Depending on where they were built and how many people prayed there, the mosques varied in size, design, pattern, and architecture.

One of the earliest mosques was Jawatha Mosque, built in the seventh year of Hijra – 629 CE – near Hofuf, Al-Ahsa in Saudi Arabia. Many people believe that the Hajar al-Aswad, or Black Stone, was hidden there for 22 years after it was stolen from the eastern corner of the Ka’ba in Makkah. Not much now remains of the mosque – only five small arches – but people still pray there.

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Examples of features from early Islamic architecture

- **Frieze**
- **Pointed domes**
- **Horseshoe arch**
- **Geometric pattern**

The large hypostyle hall in the Mosque-Cathedral of Cordoba, Spain. Can you see the vaulting in the ceiling? The minaret of the Great Mosque of Kairouan in Tunisia, North Africa.
The Dome of the Rock
The Dome of the Rock in Jerusalem is an Islamic mosque that dates back to the late seventh century CE. It was built by the ninth caliph, Abd al-Malik. The huge gold-plated dome was extremely expensive to build and was a huge engineering project – the top of the dome is over 35 metres above the rock at the centre of the building. Muslims believe that Muhammad’s (Peace Be Upon Him) miraculous Night Journey into heaven started from the rock.

Did you know?
The dome on the Dome of the Rock was originally made of gold. It was later replaced with copper, and then aluminium. After a donation from King Hussein of Jordan in 1994, the aluminium dome was covered in gold leaf.

Qasr Mshatta
During the Umayyad Caliphate, which followed the Rashidun Caliphate, many castles and palaces were built. Qasr Mshatta in Jordan was one of the most impressive of these palaces. It was one of a chain of over 30 desert palaces built by Caliph Al-Walid in 744 CE. The palace complex was a large square enclosure, with a mosque, auditorium, living quarters and buildings for government meetings. The buildings were beautifully decorated. The huge carved frieze on the front of the building is called the Mshatta Façade. This frieze is extremely significant to historians because it shows different artistic styles from around the Islamic Empire. Some of the decorations, including the carvings and patterns, are like those in the Dome of the Rock.

Great Mosque of Cordoba
The Great Mosque of Cordoba in Spain is an extremely important building because it is one of the largest sacred buildings in the Islamic world. It was converted to a Christian Cathedral in the 13th century CE, but was originally built in 787 CE by Abd al-Rahman I. He was a member of the Umayyad ruling family and he founded the Umayyad dynasty in Spain. Later caliphs extended the mosque. At one point, it was the second largest example of religious architecture in the world – the biggest was the Grand Mosque of Makkah.

Activities
1. Write a list of some of the design features of Islamic architecture.
2. Why do you think it was important to construct buildings as the Islamic Empire grew?
3. Use the internet to research an important Islamic building from the time of the expansion of Islam. Produce a guidebook for visitors. Include information about the building’s history, its architecture and its purpose. You could write about some of the original uses of the building and the people who lived there, and include a plan of the building.

Paradise gardens
An Islamic ‘paradise garden’ is a type of walled or enclosed garden. The design originally came from Persia. The structure of the walls and water features allowed beautiful gardens to flourish in the often harsh climates of the Islamic Empire. These gardens provided both privacy and security, as they still do today. Paradise gardens usually include water features such as pools, fountains and waterfalls, and a quiet place to sit and reflect or rest. Islamic paradise gardens can be found all over the world. The garden at Alhambra in Spain, is one very famous example.
2.4 What impact did early Islam have on art and literature?

**Learning objectives**
- Describe the types of art that developed as the Islamic Empire expanded.
- Discuss the influence that Islam had on art and literature.

Islamic architecture was influenced by the different peoples that were conquered during Islam’s expansion, and so were Islamic art and literature. The people within the Islamic Empire produced a wide variety of different styles of art and works of literature. Many of these are considered to be great achievements of the time. What types of art did Islamic artists produce? Why was it important? What achievements did writers make in literature?

**Islamic art**
The expansion of the Islamic Empire had a great impact on Islamic art. The wide variety of people, climates, landscapes, plants and animals influenced the artists and designers of the time. One of the greatest influences on Islamic art was religious beliefs. Much of Islamic art was made up of intricate patterns. Geometric patterns became very common and important in Islamic art. For example, circles became widely used because they are infinite and unending. ‘Arabesque’ patterns were also widely used. These are delicate patterns of flowers, leaves and vines. Artists carved arabesque patterns into wood and stone to decorate both the outside and inside of many Islamic buildings. People embroidered arabesques onto clothes and cut them into materials such as leather used to bind books. Islamic artists were also skilful at using arabesques to make inexpensive objects — such as those made from brass and clay — look as expensive as gold and silver.

**Did you know?**
Islamic artists based their geometric patterns on existing Greek and Roman patterns. They added more complex lines and shapes to them, while still keeping symmetry and order within the patterns. The designs of many artists were inspired by the work of Islamic mathematicians, scientists and astronomers.

**Carpets**
Another way in which Islamic art developed was the creation of carpets, which were elaborately woven with geometric and arabesque patterns. People also used the carpets as prayer mats and wall hangings. These carpets took an extremely long time to make and, when complete, they were beautiful pieces of artwork. Many carpets were sold to different parts of the world. Carpet-making continues to be an important part of international trade today.
Calligraphy

One of the most beautiful ways in which Islamic artists expressed their religious beliefs was through calligraphy. Ibn Muqlah, who lived in Baghdad in the early 10th century CE, created a style of writing called naskh. This gave Arabic writing the flowing beauty that it still has today. Calligraphers used this style to reproduce religious verse and parts of the Qur’an. By the 11th century CE, calligraphy was extremely popular and it was widely used in other ways, such as for decorating buildings.

Pottery and metalwork

Creating and decorating ceramic pottery was also an elaborate way of expressing the beauty of Islamic art. Early Islamic artists and craftsmen were influenced by Chinese pottery. They learned to create different ceramic glazes to make a variety of pottery items. They also created ceramic tiles, which were arranged to make amazing patterns on walls, floors and domes. The Great Mosque of Al-Qayrawan in Tunisia is decorated with beautiful ceramic tiles. Islamic artists and craftsmen also developed the art of decorative metalwork. They produced detailed carved inlays on a variety of items, such as candlesticks, lamp-stands, pen-cases, dishes and buckets.

Islamic literature

The most important work of Islamic literature is the Qur’an. It is a series of divine messages revealed to Muhammad (Peace Be Upon Him) in stages over a period of 23 years. Some of Muhammad’s (Peace Be Upon Him) companions acted as scribes and wrote down the revelations. The caliph Uthman was a close advisor of Muhammad (Peace Be Upon Him). Around 650 CE, he established an official version of the Qur’an based on the existing copies of the scripture and the knowledge of experts. Copies were made and distributed to the major cities of the expanding Islamic world.

The variety of languages and dialects across the Islamic Empire helped to develop a range of different types of literature:

- Tribal people from the Arabian Peninsula produced qasidah. These were long written poems that told stories, such as the story of someone’s life or of the events that the tribe had witnessed. Well-known qasidah include the Seven Mu’allaqat and Qasida Burda by Imam al-Busiri (c. 1211–1294 CE).
- Some ancient Arabic stories and poems were set to music. Abu Al-Faraj Al-Isfahani (897–967 CE) was an historian from Baghdad, who collected and preserved ancient Arabic stories. His famous book, Kitab al-Aghani (‘Book of Songs’), contains stories of composers, poets and singers from pre-Islamic and early Islamic times, and is one of the most valuable sources of information about these times.

Activities

1. Explain in a tweet (using a maximum of 280 characters) what calligraphy is, and what it was used for.
2. Research a building or work of art that displays one of the common styles of Islamic art (for example, the arabesque pattern). Create a presentation on this building or work of art and present your findings to the class. You might want to work in a group for this.
3. Work in a group. Find out about another type of pattern that was used in Islamic art, such as girih. Design a poster to present this type of pattern. You could include the following information:
   - when the pattern started being used
   - what the pattern looks like
   - how it is created
   - which items were commonly decorated with this pattern
   - some examples of the pattern.
What achievements were made in science and mathematics?

Learning objectives
• Assess the impact Islamic scholars had on discoveries in science and mathematics.
• Identify some of the important Muslim scholars of the early Islamic Empire.

By the late 10th century CE, the Islamic Empire stretched from the borders of India, through Persia and the Middle East, along the north coast of Africa, and into Spain and Portugal. The people of this empire, often influenced by those they had conquered, made great advances in science and mathematics. Who were the scholars who made these advances? What were their achievements and discoveries? What were the impacts of these achievements?

A scientific approach
Some Muslim scholars were gifted scientists and had a scientific approach to learning. This meant that they carried out experiments and tests, and made careful observations and measurements. Using this approach, Muslim chemists made many technological advances such as how to make new dyes and steel of a very high quality. They learned how to make gunpowder from the Chinese and made great advances in optics – the science of light. Arab surgeons such as Al-Zahrawi (936–1013 CE) created early versions of medical instruments that are still used today, such as the syringe, forceps, bone saw and the surgical hook and needle.

FACT FILE Al-Kindi (801–873 CE)
• Al-Kindi was born in Kufa, Iraq, which was a world centre of learning at that time.
• He was one of Islam’s greatest philosophers. He was also a scientist, mathematician, doctor and musician.

Did you know?
Al-Kindi wrote more than 200 books on subjects as wide-ranging as psychology, medicine, glass, dyes, zoology, tides, mirrors and earthquakes.

Cartography
As the Islamic Empire expanded into new areas, cartographers – people who create maps – were required to create maps of these new places. Traders and travellers in particular needed maps of the land and trade routes in Asia, China and Africa. Muhammad ibn Musa al-Khwārizmī (c. 780–850 CE) was a great scholar of many different subjects, who made important advances in cartography. One of his achievements was to rewrite and correct the works of geography by Ptolemy (a Roman scholar of many subjects). He created a full list of the co-ordinates of the major cities of the time. One important correction he made to Ptolemy’s maps was to draw the Atlantic Ocean and the Pacific Ocean as huge, open oceans – and not as land-locked seas. We now know that Muhammad ibn Musa al-Khwārizmī’s version was correct. Islamic scholars also improved a device that was first developed in Ancient Greece called the astrolabe. This instrument could be used to identify stars or planets and work out the local time. Scholars also learned about the compass from the Chinese. The astrolabe and the compass not only helped traders and travellers to navigate, but enabled Muslims to know the time and the direction of Makkah – essential for their daily prayers.
Botany
Botany is the study of the structure of plants. A botanist examines plants in great detail to learn how they survive, how they pollinate, how they grow, and what flowers and seeds they produce. Abu Hanifa al-Dinawari was a very important Islamic botanist. In the 9th century CE he wrote a book called Kitab al-Nabat, ‘The Book of Plants’. In it he describes different stages of plant growth and explains how plants produce flowers and fruit.

Mathematics
The study of mathematics has a very long history, dating back long before the expansion of the Islamic Empire. Islamic scholars brought together the work of Greek, Egyptian, Indian, Mesopotamian and Persian mathematicians. They also made major advances of their own. Islamic mathematicians were particularly interested in algebra, geometry and arithmetic. They used mathematics to solve many practical problems, such as calculating the strength of a bridge, the area of a field, or the volume of the storage area on a boat.

In addition to his work in cartography, Muhammad ibn Musa al-Khwarizmi also made important advances in mathematics. Historians think that he was responsible for adopting the number system used by Hindus in India. This number system became known as the Hindu–Arabic numeral system. It is based on the digits 0, 1, 2, 3, 4, 5, 6, 7, 8 and 9. It became the most commonly used system in the world and is the one that we use today.

Astronomy
During the expansion of the Islamic Empire, Arabic scholars were particularly interested in astronomy. They studied the work of Indian and Persian astronomers and developed their own theories about the movements of the sun, the moon and other planets. They located the stars precisely and plotted detailed angles of the sun.

Arabic astronomers named many of the stars in the night sky. For example, they named Alderbaran, Altair and Deneb, which are some of the brightest stars in the night sky.

Al-Ma'mun al-Rashid (caliph from 813 to 833 CE) ordered the first observatory research institute in Baghdad to be built. This observatory allowed scholars to study the sky in great detail and paved the way for very important discoveries in the future, such as the development of an accurate astrolabe.

Many scholars belonged to the House of Wisdom. This was a centre of learning in Baghdad where people from the Islamic Empire could meet to share ideas and information.

Activities
1. What was the name of the Muslim scholar who made great advances in both cartography and mathematics?
2. Create a poster with the title ‘Achievements in science and mathematics’. Create four to six cards to stick on your poster. Each card should give details of one achievement. Include achievements from a range of different subjects, such as mathematics, science, astronomy, cartography and botany. You could carry out your own research to discover even more achievements.
3. Research one famous early Islamic scholar. Choose one of the scholars you have studied in this lesson or find one of your own. Prepare a two-minute speech for a primary school class about this person. Make sure you include the person’s name, dates, location, subject studied and the advances that the person made.
Who were the Umayyad caliphs?

Learning objectives

• Consider how the Umayyad Caliphate began.
• Discover the expansion of the Islamic Empire during the Umayyad Caliphate.

The Umayyad Caliphate was the first Muslim dynasty – a family of rulers in which power passes from one generation to the next. It was one of the most powerful caliphates in Islamic history. Who were the Umayyads, and how did they take power after the Rashidun Caliphate? Who ruled during the Umayyad Caliphate? What happened during this period of history?

What were the caliphates?

There were three major caliphates that ruled over the Islamic Empire between the years 632 CE and 1258 CE. The first was the Rashidun Caliphate, which ruled from 632 CE to 661 CE. This was followed by the Umayyad Caliphate, which ruled from 661 CE to 750 CE. Then the Abbasid Caliphate ruled from 750 CE to 1258 CE.

How did the Umayyads take control of the Islamic Empire?

The Umayyads were a large merchant family, with several branches, that was based in Makkah. The third caliph of the Rashidun Caliphate, Uthman, belonged to the Umayyad family and he gave powerful and important positions to other Umayyads. This angered many people, so they rebelled against Uthman and killed him.

The fourth Rashidun caliph, Ali, took some positions of power away from the Umayyads, and he did not punish the people who were rumoured to be responsible for Uthman’s murder. This angered Muawiya, who was Uthman’s nephew and the governor of Syria. Muawiya had the support of many powerful Muslims. The conflict between Ali and Muawiya turned into a civil war, known as the First Fitna. Neither Muawiya nor Ali emerged as the winner of this war, but Ali was killed in 661 CE by a different group who opposed him.

After Ali’s death, Muawiya convinced Ali’s son Hasan not to take up the position of caliph. Instead, Muawiya took the leadership of the Islamic Empire for himself. He became the first caliph of the Umayyad dynasty.

How did the Islamic Empire change under the Umayyads?

From 632 CE to 661 CE, the four caliphs in the Rashidun Caliphate had followed the example set by Muhammad (Peace Be Upon Him) and continued to spread his teachings. The Islamic religion spread, and Islam was accepted throughout the Arabian Peninsula, in the lands of modern-day Syria, Palestine, Lebanon and Egypt, and along the north coast of Africa.

Muawiya was from the Sufyan branch of the Umayyad family. This branch ruled from 661 CE to 684 CE. They moved the centre of authority from Kufa in Iraq to Damascus in Syria. (Ali had previously moved the centre of authority from Madinah to Kufa in 657 CE.) During the Sufyan rule, the Islamic Empire expanded eastwards into central Asia and north-western India, and further westwards along the North African coast.

At this time, there were many battles between Muslim armies and the forces of the Byzantine Empire (the Eastern Roman Empire). The Muslim forces laid siege to Constantinople in Turkey for three years – between 674 and 677 CE – but in the end they were unsuccessful.

To defend the caliphate against the Byzantines, Muawiya developed a powerful navy, which he used in battles in the Aegean Sea and the Sea of Marmara. When the caliphate conquered new regions, they established naval bases in strategic locations, such as Cyzicus in north-western Turkey.
The Sufyanids and a new branch of the family

There were three caliphs from the Sufyan branch of the Umayyads:

- Muawiya I (661–680 CE)
- Yazid I (680–683 CE), Muawiya’s son – he was appointed by his father and ruled for three years
- Muawiya II (683–684 CE), Yazid’s son – he ruled briefly before he died, and had no children.

The Umayyads believed that they should keep the caliphate within the family. Muawiya II was the last caliph of the Sufyanid line and had no children, so the caliphate went to another branch of the Umayyad family, the Marwanids.

This branch of the Umayyad family is named after Marwan I, who succeeded Muawiya II. Marwan I had known Muhammad (Peace Be Upon Him) and was considered a sahaba (a male companion of Muhammad (Peace Be Upon Him)). However, he died after ruling for less than a year. After his death, his son, Abd al-Malik, became caliph.

Abd al-Malik (685–705 CE)

Under Abd al-Malik, Islam reached as far as Sind in India and the borders of China in Central Asia. Islamic armies completed the conquest of North Africa. The Umayyads built the first large mosques, and it was during the reign of Abd al-Malik that the Dome of the Rock in Jerusalem was built, as well as the Al-Aqsa Mosque in Jerusalem and the Umayyad Mosque in Damascus. These mosques were the inspiration for other mosques all around the world.

Abd al-Malik’s successors (705–750 CE)

Following Abd al-Malik’s death in 705 CE, four of his sons and one nephew took power. His grandson, Al-Walid II, ruled from 743–744 CE, but he was unpopular because he executed many of his opponents. He was killed by his cousin, Yazid III, who died after only six months as caliph.

The last of the Umayyad caliphs was Marwan II (744–750 CE), who was the grandson of Marwan I. He moved the centre of the empire from Damascus to Harran in Turkey.

The spread of the Islamic Empire under the Umayyad Caliphate

Activities

1. Match up the sentence beginnings on the left with the correct sentence endings on the right.
   - a) The first four caliphs
   - b) The Umayyad Caliphate
   - c) The Sufyanids
   - d) The Marwanids

   - i) were the first branch of the Umayyad family to rule.
   - ii) ruled after the Sufyanids.
   - iii) were known as the Rashidun Caliphate.
   - iv) came after the Rashidun Caliphate.

2. Write a fact file about either Muawiya I or Abd al-Malik. Research his life before he became caliph.
   - Write details about where he was born, who he married and who his family members were.
   - Explain why he was important.
   - Describe the battles he was involved in and who he fought.

3. Work in a group. Create a timeline of key dates, events and people of the Islamic Empire from its beginning to the end of the Umayyad dynasty. You will need to look back over all the lessons in this unit to find key dates, events and people.
Review your learning

Test questions

1. The term 'polytheistic' means:
   a. made of a plastic substance
   b. believing in more than one god
   c. the belief that there is only one god
   d. a person who doesn’t believe in god

2. The Bedouin were known for:
   a. settling in one place
   b. trading in silk and cloth
   c. fighting successful wars
   d. moving from place to place to find food and water

3. Abu Bakr ruled from:
   a. 633 to 654 CE
   b. 623 to 643 CE
   c. 632 to 634 CE
   d. 632 to 733 CE

4. Umar Ibn al Khattab kept control of the lands he conquered by:
   a. forcing all conquered people to convert to Islam
   b. creating a political structure with a governor in each area
   c. reducing the size of the conquered lands
   d. forming a navy

5. One of the caliphs was stabbed with a poisoned sword. He was:
   a. Ali ibn Abi Talib
   b. Umar ibn al Khattab
   c. Abu Bakr
   d. Uthman ibn Affan

6. A hypostyle hall was:
   a. a restaurant found in all cities
   b. a Persian-style assembly hall
   c. an office for important officials
   d. a place where hypostyles meet

7. Minarets were originally used:
   a. as watchtowers
   b. as prisons
   c. for hanging flags
   d. to light the way for travellers

8. The Great Mosque of Cordoba was built by:
   a. Muhammad (Peace Be Upon Him)
   b. Umar Ibn al Khattab
   c. Abu Bakr
   d. Abd al-Rahman I

9. Botany is the study of:
   a. ancient buildings
   b. plants and animals
   c. plants
   d. UV rays

10. The first caliph of the Sufyan branch of the Umayyads was:
    a. Yazid I
    b. Muawiya II
    c. Muawiya I
    d. Marwan I

Assessment activities

1. Write a detailed description of the Himyarite Kingdom.
   - How did its economy thrive?
   - Why did the kingdom grow and quickly decline?
   - What was life like for a Himyarite?
   - How did the people live?

2. Produce a timeline of the important events in the lives and rule of the four caliphs of the Rashidun Caliphate. Make sure you include:
   - the date that each caliph came to power
   - the key changes and events that took place during their reign, including dates
   - the lands that each caliph ruled over
   - the date each caliph’s rule ended (and give the reason why it ended).

3. Research the House of Wisdom. Then produce a detailed poster showing what the House of Wisdom was like. Include the following sections:
   - Important dates (when it was founded, for example)
   - Why the House of Wisdom was founded
   - How the House of Wisdom developed (from a single hall to a vibrant science academy)
   - Important people at the House of Wisdom
   - What the House of Wisdom contained
   - Why the House of Wisdom was/is important.

4. The Mosque-Cathedral of Cordoba in Spain is a wonderful example of Islamic architecture. Find out about this beautiful place. Write your own version of a guide book for primary school children. You could illustrate the story with pictures that you find or with your own drawings.

5. Find out how Muhammad ibn Musa al-Khwarizmi developed the Hindu–Arabic number system. Create a presentation that shows how important this development was, including some examples of mathematics.