The Muslim Legacy

Muslim art features plant and geometric designs because Muslims believe only God should produce the human form. They used calligraphy, or fine handwriting, to decorate buildings, swords, armor, and books. In architecture, the Muslims adapted features from other cultures, such as the dome and the vault. The Great Mosque of Córdoba, one of the largest houses of worship ever built, used two levels of arches in a way never seen before.

1. Why did Muslim art use plant and geometric designs?

2. What types of architecture were used by Muslim builders? How was the Great Mosque unique?

Muslims studied astronomy to determine the exact location of Mecca from other places in the empire and to figure out the correct times for prayer. They made charts that showed the locations of planets at different times of the year and invented instruments to help them observe the skies. They built a planetarium with planets that moved. One mathematician proved that people see objects because rays pass from the objects to the eyes. Later, his work was used to develop lenses for telescopes and microscopes.

3. Identify from the text at least 3 ways astronomy was advanced?

4. What did one mathematician prove? Why was his proof useful?

Muslim mathematicians based much of their work on ideas from ancient Greeks, Egyptians, and Indians. Al-Khwarizmi borrowed the Indian numeral system, including zero, and developed algebra. Others advanced the study of geometry.

5. Where did Muslim mathematicians get their math ideas? How is our math influenced?

The House of Wisdom in Baghdad contained books on all subjects from many parts of the world. Córdoba had 70 libraries, the largest of which held over 400,000 volumes. In Córdoba, Jewish scholars worked side by side with Muslims to preserve and advance knowledge.

6. Why do you think the cities of Baghdad and Cordoba were focused on building their libraries? What does it have to say about the curiosity of their scholars?