KS2 House of Wisdom:
Science and Maths in Early Islamic Civilisation

Session Length: 60 mins (plus activity)

Year groups: Upper KS2 but can be adapted to Lower KS2 (please make clear when booking)

Session Outline

- Powerpoint Introduction – Map of early Islamic civilsation/key cities
- Inventions: option to have objects in bag for children to pick from in class
- Virtual tour of Museum galleries, including objects relating to early Islamic astronomy, maths and optics
- Review activity: match the object to the name
- Powerpont: Introducing Al Haytham ('the father of optics')
- How to make your pin hole camera (activity to take place following end of session)

Session Learning Aims:

To find out about

- The range of discoveries and inventions made in Early Islamic Civilisation, many of which we rely on today
- To see museum objects which date from this period (and examples of objects which were influenced by this period)
- al Haytham, a scientific pioneer from Basra, who lived around 1000CE, and who experimented wrote about how the human eye sees

KS2 Curriculum Links

History KS2

- study of a non-European society that provides contrasts with British history – early Islamic civilization, including a study of Baghdad c. AD 900

Science

- Light: recognise that light is needed to see things and notice that light is reflected from surfaces (Year 3)
  - Light: recognise that light appears to travel in straight lines; use the idea that light travels in straight lines to explain that objects are seen

because they give out or reflect light into the eye; explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes

RE (non-statuatory guidance October 2013)

- All pupils should know about and understand a range of religions and world views

Resources needed for session

- Chess piece, jar of coffee, soap, fountain pen, cheque book in a bag/box
- Gallery review sheet: match the object to the name (print off 1 per child)
- To make a pin hole camera: A4 black card (1 per pupil), scissors, Sellotape, square piece of foil to cover end of camera, pin to make a hole, square of tracing paper
- Pin hole instructions to print off (1 per child or to share)

Pre-workshop suggested activities

- Islamic faith: who was the prophet Muhammad? Where was he born? What are the 5 Pillars of Islam?
- Revise Year 3 Light knowledge

Post-workshop suggested activities

- Find out more about symmetry in early Islamic art and have a go at this pattern symmetry maker on the HSM website: https://hsm.ox.ac.uk/clf20#tab-2441166
- Read stories from The Thousand and One Nights (known as The Arabian Nights) which were gathered together in Bagdad in the year 850. Usborne Illustrated Arabian Nights has a section at the back explaining the history of the stories.
- Use the session as a starting point for more work on light and shadows