

# The House of Wisdom



## Before Reading

### Motivation / Purpose

The purpose of the text is to report on the House of Wisdom and the discoveries that were made there that led to further scientific breakthroughs in later years. It links with the *Science* theme, *Science and Society*.

### Text Type

Draw students' attention to the:

- chapter headings and subheadings
- photographs
- glossary and index.

Ask, "What type of book is this?" (Report/Recount)

### Visual Literacy

Look at the front and back covers of the book. What do you think the House of Wisdom is? When do you think the House of Wisdom existed? What indicators on the cover lead you to these conclusions? Look at the page design and borders. Talk about the way they link to the subject matter.

### Background Knowledge

Read the title. Ask students to define wisdom. What do you think a House of Wisdom could be? Read the contents page. What culture do you think the House of Wisdom could be connected to? Why? What type of knowledge is connected with the House of Wisdom? Which chapter heading implies that the House of Wisdom no longer exists?

### Phonological Awareness

Ensure students know these phonological patterns:

- /k/: technology (p.4), Islamic (p.5), Turkey (p.6)
- /z/: Islamic (p.5), wisdom (p.7) advice (p.21)
- /ch/: culture (p.7), ancient (p.9), teach (p.19)
- /or/: thought (p.7), launch (p.13), water (p.20)

Revise these sounds: /j/: religion (p.6), algebra (p.12); /er/: universe (p.4), earlier (p.5); /ar/: past (p.7), rather (p.16); /sh/: Egyptians (p.5), mathematician (p.10)

Write words containing the above phonological patterns onto cards. Ask students to pick up word cards with a particular phonological pattern, e.g. Pick up word cards with a long z sound. What letters represent the z sound?

### Vocabulary

agriculture, algebra, Baghdad, calculus, caliph, chemistry, discoveries, Islamic, knowledge, mathematician, medicines, philosophy, rules, scholars, solve, survived, symbols, systems, testing, translating, universities, wisdom, zero

### High Frequency Words

advances, advise, beginnings, breakthroughs, challenging, continued, design, detailed, eventually, explanations, housed, introducing, observations, practical, task, useful

Write base words for *design, explanations, practical and useful*. How does the pronunciation of the base word change when suffixes and prefixes are added? What other changes are made? Have students write word families for words in the list, e.g. *explain, explanations, explaining, explains*, and use the words in sentences to show the meaning and function of each word.

## During Reading

### Vocabulary in Context

Provide students with clues to the vocabulary words. Ask students to supply the correct word from the list. e.g. a word that is similar in meaning to 'student' – *scholar*; a type of mathematics – *calculus, algebra*. Recall strategies to use when defining less familiar words while reading.

Write the names of people referred to in the text on cards. What strategies can you use to decode people's names? Discuss why names might be difficult to decode or spell.

### Checking for Meaning

#### Literal:

What is the House of Wisdom and how did it begin? (It was a large library and place of learning in Baghdad.)

Why is Al-Khwarizmi known as the father of algebra? (He wrote a book on algebra, based on the ideas of ancient Greek mathematicians.)

What contribution did Al-Kindi and the Banu Musa brothers make to science and mathematics? (Al-Kindi was a philosopher, scientist, mathematician and medical doctor who wrote more than 200 books on these

subjects. The Banu Musa brothers developed many new mathematical ideas, including geometry, and made many astronomical discoveries, including that the Earth takes 365.6 days to travel around the Sun.)

Why does the House of Wisdom no longer exist? (It was destroyed by the invading Mongols in 1230.)

### Inferential

How long ago was the Middle Ages? Why are al-Ma'mum and the House of Wisdom important to our scientific and mathematical history? In what way was the House of Wisdom similar to a university?

### Response:

Were you surprised by any information in this text? What new information did you learn? Why do you think people write books about our scientific history?

### Grammatical Patterns

Ensure students understand these components of a report:

- Introductory paragraphs defining the topic: *Modern science began about 600 years ago when a number of very important discoveries were made in the areas of mathematics and astronomy.* (p.4)
- Passages describing various aspects of the topic: *al-Ma'mum* (p.7), *al-Khwarizmi* (p.10), *medical discoveries* (p.19), *the end of the House of Wisdom* (p.22)
- Paragraphs with topic sentences: *Many of the discoveries at the House of Wisdom were to do with medicine.* (p.19)
- Use of timeless present tense: *Algebra is a mathematical system that uses letters and other symbols to represent numbers* (p.12)
- Use of past tense verbs: *They made the perfect waterwheel and constructed underground water channels* (p.20)
- Use of general nouns: *world* (p.4), *places* (p.7), *word* (p.12)
- Use of technical language: *religion* (p.6), *library* (p.7), *medicine* (p.8), *universities* (p.19)
- Use of noun groups as the beginning focus of a clause: *The House of Wisdom* (p.8), *Al-Kindi was another important scholar* (p.14), *Many Islamic scholars* (p.21)
- Use of time connectives as sentence beginnings: *During the Middle Ages* (p.5), *In the 600s AD* (p.6), *Within 200 years*, (p.6)
- Use of connectives to link ideas between sentences: *However*, (p.5), *Because of this*, (p.7), *As a doctor*, (p.15)

### Fluency / Punctuation Patterns

These punctuation patterns occur in the text:

- Use of capital letters for proper nouns: *Middle Ages* (p.5), *House of Wisdom* (p.8), *Baghdad* (p.22)
- Use of lower case letters at the beginning of Islamic names beginning with al: *al-Kindi* (p.15)
- Use of brackets to surround word definitions: (*This is called geometry.*) (p.16)

- Use of dashes to separate information added for clarification: *A well-known scholar – Husayn ibn Sina –* (p.19)
- Use of single quotation marks to indicate quoted speech: *'father of algebra'* (p.12)

In this text, longer compound sentences require students to pause at commas and dashes, for fluency. (See examples on pages 8 and 13.) Demonstrate reading these sentences, identifying words that are to be read as a group and pausing at the commas.

### Critical Literacy

Identify the main idea of the whole book, then each chapter, then the information under each subheading. Why is the information organised in this way? Could the information be ordered in a different way? Why does the information in a factual book need to be well organised?

### Linking Visual and Written

Why are the visuals in this book almost all illustrations rather than photographs? Talk about what the illustrations can convey that photographs could not convey. Ask students what differences they can see between education in the House of Wisdom and education in their own classrooms?

## After Reading

Identify sentences written in the timeless present tense. Identify the verbs written in the present tense. Why are these sentences written this way? In what way is this information 'timeless'?

### Activities

Students will:

- recall and write facts to demonstrate their comprehension of the text
- write words from the text containing specified phonological letter patterns
- change base words to fill gaps in sentences
- punctuate sentences using commas.

Comprehension (meaning)    Vocabulary (structure)    Phonics (visual)    Writing (structure)

