

The Astrolabe

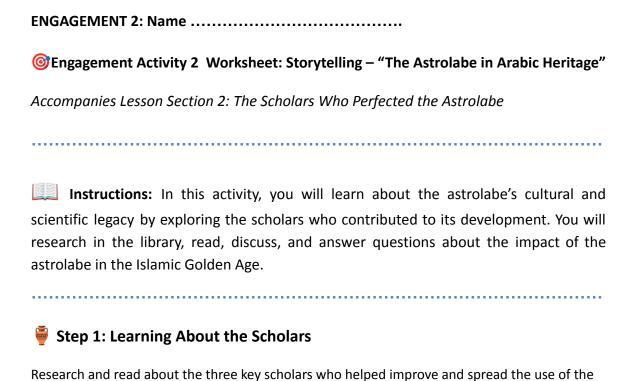
Qatar National Library

Engagement 2 Worksheet

Storytelling – "The Astrolabe in Arabic Heritage"







Al-Farghani (3rd Century AH / 9th Century CE)

astrolabe.

- Wrote detailed books about astronomy and astrolabes.
- His work was later translated into Latin and influenced European scientists.
- He explained how the movement of the sun, moon, and planets could be calculated using astrolabes.

X Al-Zarqali (5th Century AH / 11th Century CE)

- A Muslim engineer and astronomer who improved the design of astrolabes.
- He created a **universal astrolabe**, which could be used anywhere in the world.
- His designs influenced future **navigation tools used in Europe**.

👮 Mariam Al-Ijliya (4th Century AH / 10th Century CE)

- A female scholar from Aleppo, Syria.
- She studied under her father and became a master astrolabe maker.
- She designed beautifully engraved astrolabes used by scholars and travelers.



Step 2: Research

1. The story of Al-Farghani (3rd Century AH / 9th Century CE)

Your Answer:		
Sources:		



2. The Story of Al-Zarqali (5th Century AH / 11th Century CE)

Sources:		our Answer:	Your A
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3. Mariam Al-Ijliya (4th Century AH / 10th Century CE)

Your Answer:	1			
Sources:				



Step 3: Discussion – Why Was the Astrolabe Important? Now that you have read about these scholars, discuss the following big questions in your group. Write down your thoughts below.

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After reading about the scholars, discuss the following **big questions** in your group. Write your thoughts below.

write your thoughts below.
1 Why do you think Muslim scholars focused on astronomy and navigation?
(Hint: Consider the importance of trade, prayer times, and exploration.)
∠ Your Answer:
2 How did the astrolabe help people in daily life?
(Hint: Think about sailors, travelers, and scholars.)
∠ Your Answer:
3 Why do you think Al-Zarqali wanted to make a "universal" astrolabe?
(Hint: What were the limitations of older astrolabes?)
∠ Your Answer:



Step 3: Short video or presentation Reflection
If the librarian presents to you or your teacher shows a short video on Islamic scientific contributions, take notes on something new and interesting you learned.
≤ Something I learned from the video:
Step 4: Reflection and Connection to Today
Now, think about how scientific inventions like the astrolabe shape the modern world. Answer the reflection question below.
Can you think of a modern invention that is similar to the astrolabe? How is it used today?
∠ Your Answer: