

Historical Methods of Timekeeping

Chapter 11: Keeping Time with the Skies · Topic 1

Key Concept

Ancient Egyptians and Babylonians used star positions to divide the night into hours, while candle clocks (marked with evenly-spaced lines) measured time by how much of the candle had burned. Each of these early methods had limitations — sundials didn't work at night or on cloudy days, and water clocks could be affected by temperature changes altering water flow rate — driving the eventual invention of more reliable mechanical clocks using pendulums and gears.

Quick Revision Notes

- Sundials measured time using the Sun's shadow; water clocks used the flow of water.
- Candle clocks measured time based on how much wax had burned.
- Star positions were used by ancient civilisations to track night-time hours.
- Limitations of early methods (weather, temperature) drove the invention of mechanical clocks.

Practice Questions

- 1 Explain how a water clock might have been used to measure time.
- 2 What are the limitations of a sundial as a timekeeping device?
- 3 Describe how a candle clock could be used to estimate elapsed time.