

Early Civilisations

History

Year 3/4

Lesson 4 of 7

Learning Objective		Resources
To find out about mathematical understanding in early civilisations.		Slides Worksheet 4A/4B/4C/4D Number System sheets Challenge Card (FSD? activity only) Counting to Sixty video (plenary)
Teaching Input		
- Show children the scenario on the slides: You are an ancient Sumerian trader. You take your clay pots and baskets to trade at the marketplace. You trade a few during the day and keep track of what you have sold. You want to record what has been sold so you don't forget but numbers (not to mention pens and paper) haven't been invented yet. What would you do to record that you had sold five clay pots and seven baskets? Give children some time to discuss their ideas. - Explain that each early civilisation developed their own number system. Some were similar to ours, like the ancient Egyptian decimal system, but some were very different, like the Sumer number system. Go through the information on the slides about the Sumerian number system and how it uses a base of sixty instead of ten. - Explain that early civilisations didn't just use number systems. They also worked out systems for weights and measurements too. Go through the information on the slides about the Indus Valley system of weights and measures.		
Main Activity		
<u>Lower ability:</u> Provide children with the Number System sheets and give them some time to look through them. On worksheet 4A, children to use the number systems to work out how many jars of grain each character sold over three weeks.	<u>Middle ability:</u> Provide children with the Number System sheets and give them some time to look through them. On worksheet 4B, children to use the number systems to record how many jars of grain were sold over three weeks using each respective number system.	<u>Higher ability:</u> Provide children with the Number System sheets and give them some time to look through them. On worksheet 4C, children to use the number systems to record how many jars of grain were sold over three weeks using each respective number system. When finished, children to answer the questions on worksheet 4D.
Fancy something different...?		
- Provide children with the Challenge Card in pairs or small groups. Explain that their challenge is to make a ruler that has equal divisions without using a ruler! Children will need to think about what size divisions they will use and how they will make sure they are equal. Provide each group with several strips of card to use to make the rulers. - Once they have made their rulers, they can then measure some objects. Is your ruler accurate? Are your divisions small enough to be able to measure accurately? - When children have finished their challenge, bring the class back together and discuss their activity in reference to the Indus Valley and how they managed to create rulers with divisions as small as 1.7mm. Why do you think this would have been helpful? Encourage children to think about e.g. building measurements.		
Plenary		Assessment Questions
What number can you count to using your fingers? (ten). Did you know that the Sumerians could count to sixty using their fingers? How do you think they did this? Invite children to share their ideas. Show children the video of how to count to 60 using your fingers and give them some time to have a go for themselves. Explain that we still have divisions of 60 today, e.g. 60 minutes in an hour, 360° in a circle (6 lots of 60).		- Do children understand why writing and number systems developed? - Do children know that number systems varied between early civilisations? - Do children know that early civilisations developed other areas of mathematics, e.g. weights and measures?