

Year 3 Maths No Problem lesson plans Chapter 9, Lesson 11-15, Pages 46 - 50, week beginning 16/04/20

Lesson 11: Measuring Time in Hours

Textbook pages: 71 – 72

Lesson Objective

To be able to measure time in hours.

Lesson Approach

To begin this lesson, show pupils the In Focus task. Allow them to talk about how much time has passed by looking at the pictures of the clocks. After they have discussed this, tell them your friend said that because the minute hand has not moved, you only need to count the hours that have passed. Is this true? Is there a way we can check? Ask pupils what time might look like if we were to place it on a timeline. Is this a helpful tool to see how much time has passed? What intervals would be helpful to mark on a timeline: 5 minutes, 15 minutes? What might it depend on? Prompt them to use the timeline in different ways, as in the examples from Let's Learn.

During Guided Practice, pupils are using multiple methods to calculate the passage of time. Help them to discover multiple ways of calculating how much time has passed and ask them which one is most appropriate for each example. Also ask them to suggest activities for each example bearing in mind the number of hours.

Lesson 12: Measuring Time in Hours

Textbook pages: 73 – 75

Lesson Objective

To be able to measure time in hours.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them some time to discuss it. Ask them what '1 hour later' means. Can we rephrase it? Guide pupils to see that '1 hour later' is the same as 'after 1 hour'. What is 1 hour after 3 p.m.? Use the analogue clock and then a timeline to show the amount of time.

Introduce Let's Learn 2 and 3. What would 3:30 after 1 hour look like on a timeline? What about 2:15 after two hours? Is there a common pattern when an hour has passed? What happens to the minutes?

During Guided Practice, pupils are using analogue, digital and Roman numeral clocks to calculate the passage of 1 hour and 5 hours. It is important for them to recognise the relationship between the hours and minutes when full hours elapse.

Lesson 13: Measuring Time in Hours

Textbook pages: 76 – 77

Lesson Objective

To be able to measure time in hours.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them to use an analogue clock to help solve the problem. Guide pupils to see that the problem requires us to count backwards to find the starting time. Ask them to determine the time on the clock, then show pupils how to count backwards in hourly intervals, starting from 4.20 p.m., then 3.20 p.m., 2.20 p.m., 1.20 p.m., 12.20 p.m. and finally 11.20 p.m. Ask pupils if they are able to show 5 hours ago on a timeline. What would that look like? Will the minutes change when you move backwards by 1 full hour? Why or why not?

What if Emma arrived 4 hours and 30 minutes earlier rather than 5 hours earlier? How would that change the starting time? Ask pupils to use the timeline to show what time she would have arrived.

During Guided Practice, pupils are calculating the arrival time of three children who have been at the beach for different amounts of time.

Lesson 14: Measuring Time in Minutes

Textbook pages: 78 – 80

Lesson Objective

To be able to measure time in minutes.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them to come up with multiple ways of showing how much time has passed. Tell pupils your friend said he counted all of the smaller markers to calculate how many minutes had passed. Is this the most efficient way? Are there easier ways?

Prompt pupils to count in larger intervals (5-, 10-, 15-, 20- or 30-minute intervals). Which is easiest for them? Pose the questions from the Let's Learn section and ask them to show multiple ways of counting the number of minutes that have passed using different intervals. Introduce Let's Learn 4 and tell them that the 'length of time' can also be called the 'duration of time'.

During Guided Practice, pupils are looking at how much time has passed in minutes. Ask them why the hour hand has moved if only minutes have passed. This will consolidate their understanding of the relationship between the minute hand and the hour hand. In the second part of Guided Practice, pupils are starting from minutes that are not simple

multiples of 5. Can they find a way to still count in multiples of 5? Can this be shown on a timeline?

Lesson 15: Measuring Time in Minutes

Textbook pages: 81 – 82

Lesson Objective

To be able to measure time in minutes.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them to work on this problem. Ask them how many minutes it takes to reach 12 noon from 11.20 p.m. Show them that the 45-minute duration can be broken up into 40 minutes and 5 minutes using a number bond. Draw the timeline to show 11.20 p.m. to 12 noon, then add 5 minutes to 12 p.m. The game ended at 12.05p.m. Guide pupils to see that counting minutes to the next hour, then counting on to find the ending time, is a method of counting time.

What if the match started at 10:50 a.m. instead of 11:20 a.m.? Get pupils to calculate the ending time using the method above. How many minutes does it take to make the next hour? How many minutes are left from the duration? Ask them to count on to find the ending time.

During Guided Practice, pupils are calculating the ending time given the starting time and duration of activities. Ask them to think of activities that take approximately the same amounts of time.