Year 3 Maths No Problem lesson plans Chapter 9, Lesson 16 – 20, mind workout and review, Pages 51 - 60, week beginning 27/04/20

Lesson 16: Measuring Time in Minutes

Textbook pages: 83 – 84

Lesson Objective

To be able to measure time in minutes.

Lesson Approach

To begin this lesson, show pupils the In Focus task and ask them how they might calculate when Elliott and Lulu should leave home. Let them discuss this and ask them to show how they calculate the starting times using an analogue clock and a timeline. Encourage them to use the different ways of counting they have learnt in previous lessons, including counting backwards in intervals of 5-minutes; using number bonds to break up larger intervals of minutes; and counting backwards to the previous hour, then counting on.

During Guided Practice, pupils are calculating the starting time of activities. They are given the length of time in minutes and end time of activities.

Lesson 17: Changing Minutes to Seconds

Textbook pages: 85 – 86

Lesson Objective

To be able to convert minutes into seconds.

Lesson Approach

To begin this lesson, ask pupils how much the second hand moves in 1 minute. Allow them to observe the second hand for 1 minute. The second hand would have moved 1 complete turn in 1 minute. Ask them how many seconds do they think there are in 1 minute? Since the second hand moved 1 complete turn in 1 minute, we can tell that in 1 minute, there are 60 seconds. Then ask them how we could calculate the number of seconds in 5 minutes. If 1 minute = 60 seconds, 5 minutes = 5 × 60 = 300 seconds.

During Guided Practice, pupils are using multiplication or repeated addition to find the answers.

Lesson 18: Changing Seconds to Minutes

Textbook pages: 87 – 88

Lesson Objective

To be able to convert seconds into minutes.

Lesson Approach

To begin this lesson, show pupils the In Focus task and allow them to solve this problem using multiple methods. Tell them your friend sees the 6 times table in 120 seconds and that helps him solve the problem. However, you have another friend that says she can use number bonds to help her solve the problem. How would this work? In which way would we want to break up the number of seconds: by 100, 10, 60? Why is this?

As demonstrated in the Let's Learn tasks, provide pupils with different lengths of times they will need to turn into minutes and seconds. The focus of using number bonds needs to be in pulling out 60 seconds as many times as possible to determine the number of minutes. Ask them to explore why this is; why not use smaller intervals? Could we use smaller intervals like 30 seconds? Encourage pupils to demonstrate using multiple methods to solve problems.

During Guided Practice, pupils are using number bonds to break apart a number of seconds.

Lesson 19: Finding Number of Days

Textbook pages: 89 – 91

Lesson Objective

To be able to find the number of days in each month, year and leap year.

Lesson Approach

To begin this lesson, show pupils the In Focus task and tell them your friend said there are 30 days in every month. Is this true? How can they find out? Which months have 30 days? Which months have more than 30 days? Are there any that have fewer days?

Show pupils Let's Learn 3 and ask them to name the years that have 28 days in February and those years that have 29 days. Do they know what to call a year in which February has 29 days? It is called a leap year. Ask pupils to study the table, how often does a leap year occur? Ask them to count the number of days in a year which is not a leap year.

During Guided Practice, pupils are calculating the number of days it took to complete certain activities. In the second example, allow them time to work out the answer as there are multiple solutions, depending on when Lulu started and if it is a leap year or not. Prompt them as necessary.

Lesson 20: Finding Number of Days

Textbook pages: 92 – 93

Lesson Objective

To be able to find the duration in terms of number of days.

Lesson Approach

To begin this lesson, show pupils the In Focus task and ask them how many ways they can show the number of days in Lulu's holiday. Tell them your friend said if you subtract 3 from 17 you get 14, so it must mean the holiday was only 14 days long. Is this correct? What has the friend not counted?

Ask pupils how they can prove this using the monthly calendar. Then ask them what if the holiday only lasted for 10 days, when would it end? Tell them your friend said if you add 10 to 3 you get 13, so it must end on the 13th. Is this correct? Has the friend made the same mistake? How can we use a calendar to check our answer? Ask pupils to discuss why you cannot use simple addition or subtraction to solve the calendar questions.

During Guided Practice, pupils are using calendars to solve problems related to duration of days.

Lesson 21: Chapter Consolidation

Textbook pages: 94

Lesson Objective

To be able to use the knowledge of time to solve problems.

Lesson Approach

Mind Workout
Pupils calculate the day and time in Singapore and New York given the time and time differences from London.

Math Journal
Pupils describe how they spend their Sunday in terms of the start and end times and the duration of each activity.

Self Check
Pupils complete this as a chapter summary and discuss what to do with their teacher if any boxes are not ticked.