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TOTAL TIME



Read the time to 5 minutes on a 12-hour digital clock, and use the

notation 9:40.

| VOCABULARY |
|--------------|
| am, pm, noon |
| minute |
| hour |
| analogue |
| digital |

RESOURCES counting stick; a 12-hour digital clock – one that you can easily change; circular number line (resource sheet 17); individual white boards or pieces of paper to hold up

HOMEWORK Find times of favourite TV programmes in a TV Guide



Use the counting stick to count from 7 am through 12 noon to 5 pm, and back again, using the terms am, noon and pm. Point out that 12 noon is in the middle of your stick as a reference point. Explain that times before this central point are in the morning and times after it are in the afternoon.

Now point randomly to the divisions on the stick. Ask what time it is and how the children know. Invite them to suggest what might happen at that time, for example 1 pm is when afternoon lessons start.



Indicate a point halfway between 8 am and 9 am. *What time will that be?* Repeat, pointing at other half-past times.

KEY QUESTIONS

How do we say times that are in the morning? ...in the afternoon?

MAIN ACTIVITY



Show the children a **digital** clock and remind them that there are 60 minutes in an hour. Make the clock say 10 o'clock. Point out that the number before the two dots, or colon, tells us the hour, and that the number after the dots tells us the minutes past the hour. Say: 'the hour is ten, and there are no minutes after the hour. This means that it is 10 o'clock'. If your clock has a way of denoting whether this is 10 am or 10 pm, point this out.



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Tell the children that you are going to make the clock show a time five minutes later. Make the clock show 10:05. Ask the children what time this is. Point out that there is a zero before the five and this means that there are no tens in a similar way to how we would write a zero in the tens place in a three- or four-digit number. Now make the time say 10:10, 10:15 and so on, all the way to 10:55. Ensure that everyone understands that you are moving the clock on by five minutes each time. Ask the children to read the time, saying, for example, 'ten fifteen' or 'ten twenty'. Reinforce that this means 15 or 20 minutes **after** 10 o'clock.

Now ask the children to predict what time it will be five minutes after 10:55. If they are unsure, remind them that there are 60 minutes in an hour.

Show the children the circular number line with minutes marked in fives to 60. Make the digital clock say a time between 10 and 11 o'clock and ask the children whether they think this time is closer to 10 o'clock or 11 o'clock, using the number line to help.

Explain Activity Sheet 8.1, which the children will have to complete before the next session.

KEY QUESTIONS

Is 10:35 closer to 10 o'clock or 11 o'clock? How do you know?



Ask everyone to write on their white boards a time between 10:00 and 11:00. Then ask them to circle their time if it is nearer to 10:00 than 11:00. Check their answers and discuss why they circled particular times.

Ask them all to write down a time that is nearer to 11 o'clock than 10 o'clock. Ask them to explain why they chose particular times.



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OBJECTIVE

Read the time to 5 minutes on an analogue clock and a 12-hour digital clock, and use the notation 9:40.

VOCABULARY

am, pm, noon minute, hour analogue, digital past, to half past quarter past quarter to **RESOURCES** counting stick; an analogue clock (preferably geared); individual analogue clocks, one for each child



Use the counting stick to count from 7 am through 12 noon to 5 pm, and back again, using the terms am, noon and pm. Remind everyone that 12 noon is in the middle of your stick as a reference point, and that times before this central point are in the morning and times after it are in the afternoon.



Ask the group what time is four hours **later** than 10 am, encouraging them to count on four hours, going through 12 noon. What time is two hours before 1 pm? How did you work this out? Encourage counting back through 12 noon. Ask similar questions which require counting back through 12 noon.

KEY QUESTIONS

How can you work out what time is four hours after 10 am? How can you work out what time is two hours before 1 pm?

MAIN ACTIVITY



Show the children an **analogue** clock and remind them that there are 60 minutes in an hour. Move the minute hand five minutes at a time. Encourage the group to count in fives until the hand reaches the top again. Point out that you stopped counting in fives because there are 60 minutes in one hour. Remind the children that when the minute hand is at the top of the clock, on the number 12, it is 'something' o'clock.

Put the hour hand on the number 9 and ask the children what time the clock says. Move the minute hand on five minutes and tell them that is now five minutes after 9 o'clock, and that another way of saying this is 'five past nine'. Move the minute hand on another five minutes. *What time is it now*? Move the hand on another five minutes. *What time is it now*?



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Explain that we don't usually say '15 past 9' but **quarter past**, because the minute hand is now a quarter of the way around the clock. Continue moving the hand five minutes at a time and asking what time it is until you reach half past 9. Explain that we don't call this time 30 past 9 but **half past**, as the minute hand is half-way around the clock.

Move the hour hand to the number 10 and the minute hand to the top. Ask the children to say what time it says now. Say that you are going to move the minute hand on five minutes at a time and the group have to chant all together what time it says, for example, five past 10. End with half past 10. Repeat this, writing the time in digital form. Draw out the link between the analogue and digital forms.

Now move the hands to show 3 o'clock. Ask what time is this. Move the minute hand back five minutes. Tell them that this time is five minutes before 3 o'clock, or five to three. Explain that we could also count on in fives from 2 o'clock to say that it is 55 minutes after two, shown as 2:55 on a 12-hour digital clock, but that on an analogue clock we usually count back from the next hour when the time is after half past.

Move the hands to 10 to 3. Ask how many minutes there are to go until 3 o'clock. Say that we call this time 10 to 3, as there are 10 minutes to go before 3 o'clock. Repeat this for quarter to 3 (pointing out why it is said this way), 20 to 3 and 25 to 3. Move the hands to any of these times and ask the children to read the time and to explain how they arrive at their answers.

Explain Activity Sheet 8.2, which the children will have to complete before the next session.

KEY QUESTIONS

What time does the clock say now? How do you know? If you're not sure, what can you do to find out (count in fives)?



Ask the children to show you a time on their individual clocks between 2 o'clock and half past, then a time between half past 2 and 3 o'clock. Ask how they decided, drawing out which side of their clock shows times that are 'past' the hour and which side shows times that are 'to' the hour.

| Name | | |
|------|--|--|
| Date | | |

Dear Parents/Carers,

In our mathematics lessons, we have been learning to tell the time on a 12-hour digital clock. Please help your child to practise this by helping him or her to look in a TV guide to find the times of five favourite programmes. Ask your child to read you the times and say how many minutes past the hour each of them is.

Thank you for your help.

Your child's teacher

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| Activity sheet 8. | Name Date | D | | | | |
|--|--|------------------------------|--------------------|--|--|--|
| The times on the left are taken from a digital clock. For each of these times, circle the time they are closest to. Use the dial below if you get stuck. | | | | | | |
| ſ | 2:55 | 2 o'clock | 3 o'clock | | | |
| | 2:25 | 2 o'clock | 3 o'clock | | | |
| | 6:50 | 6 o'clock | 7 o'clock | | | |
| [| 4:15 | 4 o'clock | 5 o'clock | | | |
| [| 11:45 | 11 o'clock | 12 o'clock | | | |
| [| 12:10 | 12 o'clock | 1 o'clock | | | |
| | 55 60 50 -45 -45 -40 -35 -30 | 0 5 10 15- 20 25 | Minutes in an hour | | | |

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12

76

5

10

9

Name

Date

5 past 10

Quarter to 11

5 to 3

20 past 2





- 3. Which time is closest to 11 o'clock?
- 4. Which time is closest to 2 o'clock?
- 5. Which time is closest to 3 o'clock?

NNS Springboard 4
PART **3** UNIT **8**RESOURCE SHEET



Unit 8 RESOURCE SHEET 17



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