

Summer Block 2

Time

Small steps

Step 1

O'clock and half past

Step 2

Quarter past and quarter to

Step 3

Tell the time past the hour

Step 4

Tell the time to the hour

Step 5

Tell the time to 5 minutes

Step 6

Minutes in an hour

Step 7

Hours in a day

O'clock and half past

Notes and guidance

In Year 1, children learnt to tell the time to the hour and half past the hour. That learning is revisited in this small step.

Begin by discussing time, finding out what children already know and can remember from Year 1. Recap the two hands of the clock, starting with the minute hand on 12 and the hour hand moving around the clock, showing the different times on the hour. Provide children with clocks and ask them to show a given time, before making a time for a partner to read. Move on to half past the hour, showing the minute hand at 6 and the hour hand halfway between two numbers. Ensure that children know that the time will be half past the last number the hour hand has moved past.

Things to look out for

- Children may keep the hour hand pointing directly at a number for half past an hour, instead of halfway between two numbers.
- Children may confuse the minute and hour hands.
- Children may not use analogue clocks outside school, so this representation may be unfamiliar to them.

Key questions

- Which is the hour hand? Which is the minute hand?
- What is the same and what is different about the hands on a clock?
- What does each hand on a clock show?
- At _____ o'clock, where should the hour/minute hand be?
- What time is shown?
- Where does the hour/minute hand need to be for half past _____?

Possible sentence stems

- When the minute hand points at _____ (12/6), it means that the time is _____ (o'clock/half past).
- The time is _____ o'clock.
- The time is half past _____

National Curriculum links

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times

O'clock and half past

Key learning



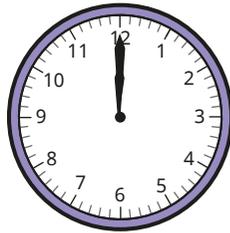
Model telling the time to the hour and half past the hour on a large clock.

Make sure that children see that at half past the hour, the hour hand is halfway between two numbers. Move on to giving the children a time for them to show on clocks.

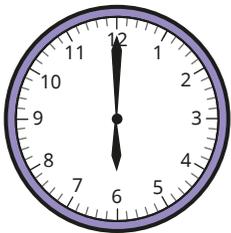
- Write the times shown on the clocks.



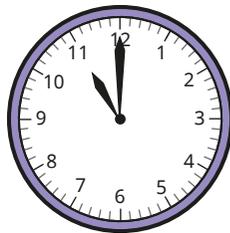
_____ o'clock



_____ o'clock



_____ o'clock

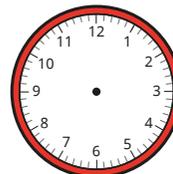


_____ o'clock

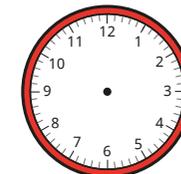
- What times are shown on the clocks?



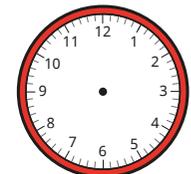
- Complete the sentences.
 - At 5 o'clock, the hour hand points to _____ and the minute hand points to _____
 - At half past 11, the hour hand points between _____ and _____ and the minute hand points to _____
- Draw hands on the clocks to show the times.



3 o'clock



half past 5



half past 12

O'clock and half past

Reasoning and problem solving



It is half past 11, so the hour hand should point to 11

No

Is Tiny correct?
Explain your answer.



The minute hand has fallen off the classroom clock.



Yes

Lunchtime is at 12:00
Are the children late for lunch?
Explain your answer.



Sam, Max and Jo are telling the time.



Sam: The time is half past 6

Max: The time is half past 3

Jo: The time is half past 2

Jo

Who is correct?
What mistakes have the other children made?



Quarter past and quarter to

Notes and guidance

In this small step, the learning from the previous step is extended to include quarter past and quarter to the hour. This is the first time that children have seen the terms “quarter to” and “quarter past”, although they should be familiar with quarters from work on fractions.

Model the four quarters on a clock. Children may see the connection between half past and two quarters past, and it is worth discussing this link. While children will be familiar with the term “past” from the previous step, the term “to” in relation to time is new. Spend some time modelling where the minute hand goes for quarter past and quarter to, as well as where the hour hand needs to be at these times.

Children then read and create times for themselves.

Things to look out for

- Children may confuse “quarter past” and “quarter to”.
- Children may keep the hour hand pointing directly at a number for quarter past/to an hour, instead of placing it partway between two numbers.
- Children may confuse the minute and hour hands.

Key questions

- How many quarters are there in one whole?
- How could you show a quarter on a clock?
- What does each hand on a clock represent?
- The minute hand is pointing at $\frac{3}{9}$. What do you know about the time?
- Where does the minute hand point for quarter past/to _____?
- What is the same about quarter past _____ and quarter to _____? What is different?

Possible sentence stems

- The time shown is quarter past/to _____
- At quarter past/to _____, the minute hand is pointing to _____ and the hour hand is between the _____ and the _____

National Curriculum links

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times

Quarter past and quarter to

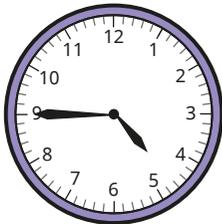
Key learning



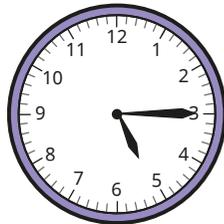
Model telling the times quarter past and quarter to the hour on a large clock.

Discuss where the hour hand should be in each case. Move on to giving children a time to show on clocks.

- What is the same and what is different about the times?



quarter to 5



quarter past 5

- Match the clocks to the times.



quarter past 3



quarter past 6



quarter past 1

- Match the clocks to the times.



quarter to 3



quarter to 9



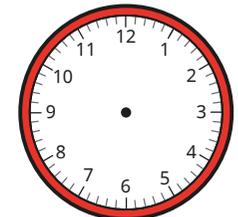
quarter to 12

- Complete the sentences.

- ▶ At quarter past 7, the hour hand points to less than halfway between _____ and _____
The minute hand points to _____
- ▶ At quarter to 5, the hour hand points to over halfway between _____ and _____
The minute hand points to _____

- Draw hands on a clock to show the times.

- ▶ quarter to 9
- ▶ quarter past 11
- ▶ quarter to 11



Quarter past and quarter to

Reasoning and problem solving



The time is quarter past 2, so the hour hand is closer to the 2 than to the 3

Is Tiny correct?

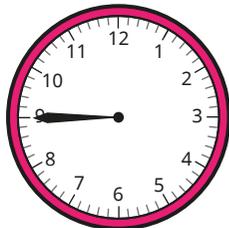
Explain your answer.



Yes

The hour hand has fallen off the clock.

It was pointing closer to an even number than an odd number.



What time could it be?

quarter to any even number of hours, e.g. quarter to 4

How many quarters of an hour are there between quarter past 7 and quarter to 9?



How did you work it out?



6

Put the times in order, from earliest to latest.

quarter past 7



half past 7

quarter past 7
half past 7
quarter to 8 (clock)

Tell the time past the hour

Notes and guidance

Children have already seen the term “past” the hour in relation to half past and quarter past. In this small step, that learning is extended to include intervals of 5 minutes past the hour.

Remind children that there are 60 minutes in an hour, and show that each of the twelve sections of a clock corresponds to a 5-minute interval. Use a large clock and model moving the minute hand around the clock to show 5 minutes, 10 minutes and so on, up to 30 minutes. Then discuss how to read times using the hour hand as well, for example 5 past 9, 10 past 9, quarter past 9 and so on. Children then read and create times for themselves.

Times to the next hour will be covered in the next step.

Things to look out for

- Children may say the number that the minute hand is pointing to, for example “1 minute past” instead of “5 minutes past”.
- The break in the pattern going from “5 minutes past” and “10 minutes past” to “quarter past” rather than “15 minutes past” may cause confusion.

Key questions

- How many minutes are there in an hour?
- How many numbers are shown on the clock?
- How many minutes are there between each number shown on the clock? How do you know?
- What does each hand on a clock represent?
- If the minute hand is on _____, how many minutes past the hour is it?
- How else do we say “15/30 minutes past” an hour?
- When does the minute hand stop being “past the hour”?

Possible sentence stems

- When the minute hand is pointing to _____, it is _____ minutes past the hour.
- The time shown is _____ minutes past _____

National Curriculum links

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times

Tell the time past the hour

Key learning



Model telling the times 5 past, 10 past, 20 past and 25 past. Recap quarter and half past and discuss how these also represent 15 minutes and 30 minutes past. Model the movement of the hour hand as well.

- What is the same and what is different about the times?



- Match the clocks to the times.



20 minutes past 5

25 minutes past 4

5 minutes past 4

- Write the times shown on the clocks.



_____ minutes past _____



_____ minutes past _____

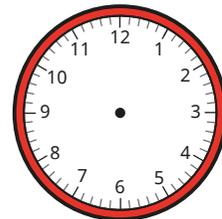


_____ minutes past _____

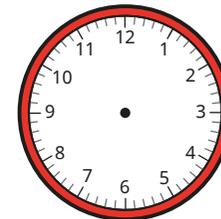


_____ minutes past _____

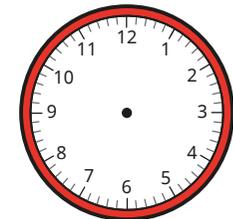
- Draw hands on the clocks to show the times.



10 minutes past 1



20 minutes past 6



25 minutes past 9

Tell the time past the hour

Reasoning and problem solving

Ron and Sam are telling the time.



The time is 15 minutes past 5

Ron

It is quarter past 5



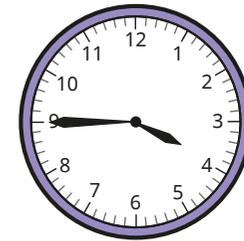
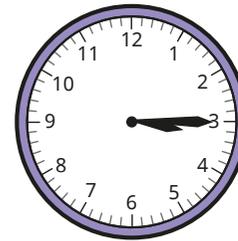
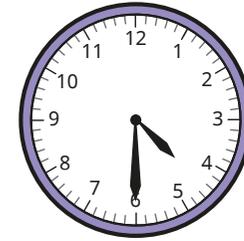
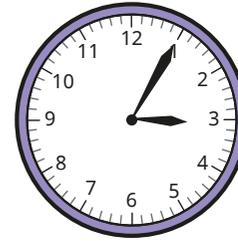
Sam

Who do you agree with?

Explain your answer.

Both children are correct.

Which time is the odd one out?



Is there more than one answer?

multiple possible answers, e.g.

quarter to 4: does not include "past"

5 minutes past 3: only time that uses "minutes"

half past 4: not between the hours of 3 and 4

Tell the time to the hour

Notes and guidance

At this stage, children have only seen the term “to” in relation to time when referring to quarter to the hour. In this small step, that learning is extended to include intervals of 5 minutes before the hour.

Explain that half past the hour is only ever said as that, and never as “half to” the hour. Then model the times 25, 20, 10 and 5 minutes to the hour, while also reminding children of quarter to the hour. They see that the hour hand is pointing to before the number that is said in the time. For example, at 10 minutes to 2, the hour hand is pointing slightly before 2. Encourage them to see that times after half past are related to the next hour, so times after half past 6, for example, are “_____ minutes to 7”. Children then read and create times for themselves.

Things to look out for

- Children may continue the pattern from the previous step and say 35 minutes past, instead of 25 minutes to.
- Children may confuse the terms “past” and “to”.
- Children may use the number of intervals before the hour, or the number the minute hand is pointing to, for example “1 minute to” or “11 minutes to”.

Key questions

- How many minutes are there between each pair of numbers on a clock?
- When in an hour do you stop saying “past” and start saying “to”?
- How can you tell by looking at a clock if the time is past or to the hour?
- Where does the minute/hour hand need to be for the time _____ minutes to _____?
- What is the same and what is different about the times _____ minutes past _____ and _____ minutes to _____?

Possible sentence stems

- The time is _____ minutes to _____
- At _____ minutes to _____, the hour hand is between _____ and _____ and the minute hand is pointing to _____

National Curriculum links

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times

Tell the time to the hour

Key learning

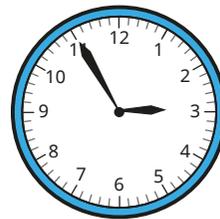
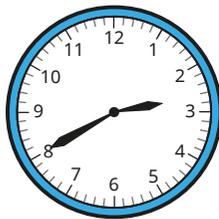
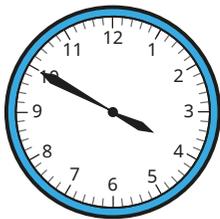


Model telling the time to the hour in 5-minute intervals on a large clock, including quarter to the hour. Draw children's attention to the position of the hour hand, which should be over halfway between the two numbers.

- What is the same and what is different about the times?



- Match the clocks to the times.



5 minutes to 3

20 minutes to 3

10 minutes to 4

- Write the times shown on the clocks.



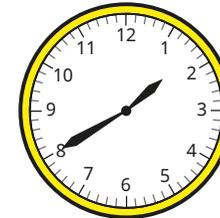
_____ minutes to _____



_____ minutes to _____

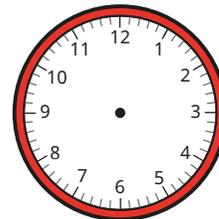


_____ minutes to _____

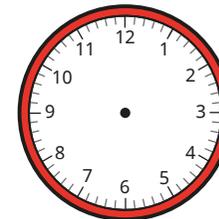


_____ minutes to _____

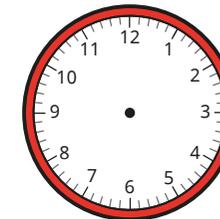
- Draw hands on the clocks to show the times.



10 minutes to 5



10 minutes to 7



5 minutes to 7

Tell the time to the hour

Reasoning and problem solving

Tiny is telling the time.

The time is 10 minutes to 2

10 minutes to 3

What mistake has Tiny made?
What is the correct time?

Kay is going to the park at 4 o'clock.

25 minutes

How long until Kay goes to the park?

The time is 20 minutes to 5
Are the statements true or false?

The hour hand is closer to the number 4 than to the number 5

The hour hand is closer to the number 6 than the minute hand is.

In 5 minutes, the time will be quarter past 5

False
True
False

Explain your answer.

Tell the time to 5 minutes

Notes and guidance

In this small step, children combine their learning from the previous two steps to tell the time to 5-minute intervals both past and to the hour.

Recap that the right-hand side of a clock shows times that are “past” the hour, while the left-hand side shows times that are “to” the hour. Remind children that when the minute hand is pointing to 6, this always refers to “half past” and never “half to”.

Model where the hour hand should be for a given time, discussing which two numbers it should be between and which one of the numbers it should be closer to. For “past” times, the hour hand should be less than halfway between two numbers, and for “to” times it should be over halfway.

Things to look out for

- Children may confuse “past” and “to”.
- Children may confuse the 5-minute intervals with the number shown on the clock, for example saying “2 minutes past” instead of “10 minutes past”.
- Children may give all times in terms of minutes, instead of using “half past” and “quarter past/to”.

Key questions

- How many minutes are there between each pair of numbers on a clock?
- At what time in an hour do you stop saying “past” and start saying “to”?
- Where does the hour hand point for the time _____?
- What is the same and what is different about the times _____ minutes past _____ and _____ minutes to _____?
- How many minutes past/to the hour is it if the minute hand is pointing to _____?

Possible sentence stems

- When the minute hand is pointing to _____, the time is _____ minutes past/to the hour.
- At _____ minutes past/to _____, the minute hand is pointing to _____ and the hour hand is between _____ and _____

National Curriculum links

- Tell and write the time to five minutes, including quarter past/to the hour and draw the hands on a clockface to show these times

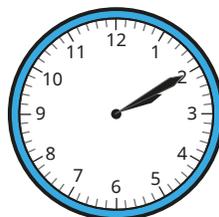
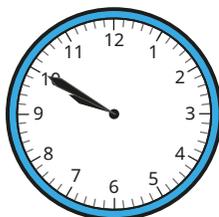
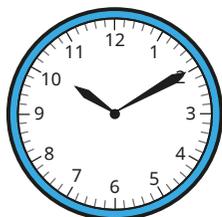
Tell the time to 5 minutes

Key learning



Model telling the time to 5-minute intervals both past and to the hour on a large clock. Then give children a time for them to show on clocks. Make sure that children pay attention to the position of the hour hand for different times.

- Match the clocks to the times.



10 minutes past 2

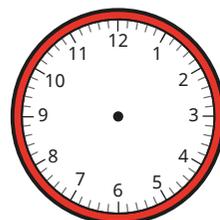
10 minutes to 10

10 minutes past 10

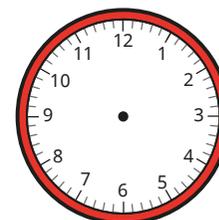
- Write the times shown on the clocks.



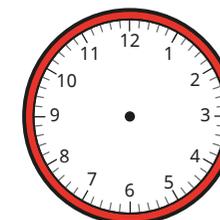
- Draw hands on the clocks to show the times.



10 minutes to 3



5 minutes past 4



25 minutes to 11

- Use the cards to make a time.

5 minutes

10 minutes

quarter

20 minutes

25 minutes

half

past

to

1

2

3

Ask a partner to make that time on a clock.

How many different times can you make?

Tell the time to 5 minutes

Reasoning and problem solving

Kim, Ron and Mo are telling the time.



Kim says: "It is 10 minutes to 1"

Ron says: "It is 10 minutes to 2"

Mo says: "It is 10 minutes past 10"

Who is correct?
What mistakes have the other children made?

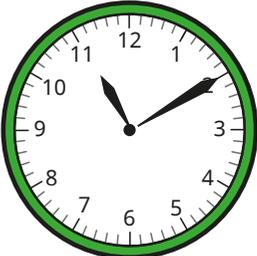


Ron

Sam is wrapping presents for a party.




Sam says: "I will start at 10 minutes past 11"



Each present takes Sam 5 minutes to wrap.
She wraps 7 presents.
What time does Sam finish?
Explain how you worked it out.



quarter to 12

Minutes in an hour

Notes and guidance

Children should be familiar with the fact that there are 60 minutes in an hour from earlier in the block. The focus in this step is on using and applying this fact.

Start by exploring half, quarter and three-quarters of an hour and how many minutes each of these refers to. This is a good opportunity to revisit learning from the previous block on fractions.

Children then focus on using the fact that there are 60 minutes in an hour to work out lengths of time greater than 1 hour. For example, 1 hour and 10 minutes is equal to 70 minutes, and 90 minutes is equal to one and a half hours. They can then use this to compare durations of time written in different ways.

As children are yet to explore numbers beyond 100, durations of time beyond 100 minutes are not covered.

Things to look out for

- Children may need to recap working out fractions of amounts.
- If children are not secure in their understanding of addition and subtraction within 100, they may struggle to interpret durations beyond 1 hour.

Key questions

- How many minutes are there in an hour?
- How can you work out $\frac{1}{2}/\frac{1}{4}/\frac{3}{4}$ of 60?
- How many minutes are there in half/quarter/three-quarters of an hour?
- How many minutes are there in 1 hour and _____ minutes?
- How many hours and minutes are there in _____ minutes?
- Which length of time is longer, _____ minutes or 1 hour and _____ minutes?

Possible sentence stems

- There are _____ minutes in 1 hour.
- There are _____ minutes in quarter/half/three-quarters of an hour.
- There are _____ minutes in 1 hour and _____ minutes.

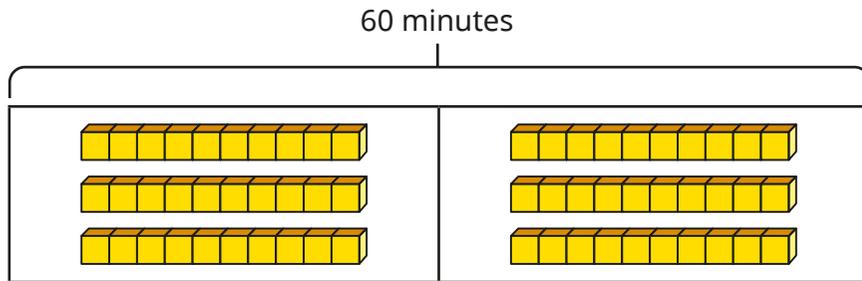
National Curriculum links

- Know the number of minutes in an hour and the number of hours in a day

Minutes in an hour

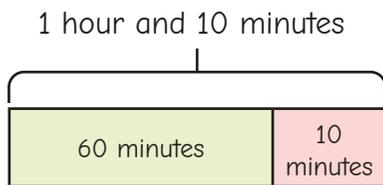
Key learning

- Use the bar model to work out how many minutes there are in half an hour.



Use a bar model to work out how many minutes there are in:

- quarter of an hour
 - three-quarters of an hour
- Jo draws a bar model to work out how many minutes there are in 1 hour and 10 minutes.



Use Jo's method to work out how many minutes there are in:

- 1 hour and 20 minutes
 - 1 hour and 35 minutes
 - 1 hour and 5 minutes
 - 1 hour and 40 minutes

- Sam works out how many hours and minutes there are in 85 minutes.

$$85 \text{ minutes} - 60 \text{ minutes} = 25 \text{ minutes}$$

$$\text{So } 85 \text{ minutes} = 1 \text{ hour and } 25 \text{ minutes}$$

Use Sam's method to work out how many hours and minutes there are in:

- 65 minutes
 - 70 minutes
 - 95 minutes
 - 100 minutes
- Write $<$, $>$ or $=$ to make the statements correct.
 - half an hour 40 minutes
 - 1 hour 100 minutes
 - 50 minutes 1 hour and 5 minutes
 - 1 hour and 10 minutes 70 minutes
 - 90 minutes three-quarters of an hour

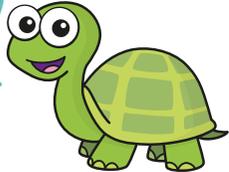
Minutes in an hour

Reasoning and problem solving

The school day ends at half past 3
Here is the time now.



There are 30 minutes until the end of school.



Do you agree with Tiny?
Explain your answer.



Yes

Fay is washing cars for charity.
She can wash one car in 10 minutes.
How many cars can she wash in one and a half hours?



9

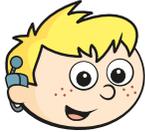
It takes Mo three-quarters of an hour to walk home from school.
It takes Sam 1 hour and 5 minutes.
It takes Kim 70 minutes.
Who takes the longest time to get home?
Who takes the shortest time?



Kim

Mo

School starts at 9 o'clock and my maths lesson starts 80 minutes later.



Max

What time does Max's maths lesson start?



20 minutes past 10

Hours in a day

Notes and guidance

This small step extends children’s knowledge of the relationships between units of time as they explore the number of hours in a day.

Model how the hour hand moves throughout the day, allowing children to see that each time appears twice in the day, for example 8 o’clock in the morning and 8 o’clock in the evening. Children can then see that there are 24 hours in a day, connecting this to the twelve hours on a clock each happening twice a day. Establish that a full day of 24 hours includes the night-time when they are asleep, as some children may only think of a “day” as the hours in which they are awake.

Discuss the terms midnight and noon, and explain that a new day starts at midnight. Children then solve problems involving time.

The terms “am” and “pm” are not introduced until Year 3

Things to look out for

- Children may be confused by the same numerical time appearing twice in a day.
- Children may think that a new day starts at 1 o’clock rather than 12 midnight.

Key questions

- If the hour hand moves all the way around the clock, how many hours have passed?
How many times does it do this in one day?
- How many hours are there in a day?
- What time will it be in one hour?
- How many times in a day will it be _____ o’clock?
- What time does a new day start?
- What is the same and what is different about noon and midnight?

Possible sentence stems

- There are _____ hours in a day.
- Each time on a clock happens _____ times every day.
- A new day starts at 12 _____

National Curriculum links

- Know the number of minutes in an hour and the number of hours in a day

Hours in a day

Key learning



Starting with both hands pointing to 12, model how the minute and hour hand move throughout a day. Pause at each hour to tell the time. What happens at 12? How many times does this repeat during a day? Introduce the terms “midnight” and “noon” to describe when the hour hand is pointing to 12

- Complete the sentences.
 - ▶ There are _____ hours in a day
 - ▶ 12 o'clock at night is called _____
 - ▶ 12 o'clock in the middle of the day is called _____
 - ▶ A new day begins at _____
- Use the cards to complete the sentences.

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 - ▶ Dan is asleep at _____ o'clock in the morning.
 - ▶ Kay eats lunch at _____ o'clock in the afternoon.
 - ▶ Ben walks to school at _____ o'clock in the morning.

- Write some sentences about your day.
I _____ at _____ o'clock in the morning/in the afternoon.

- Here is a clock.



- ▶ What time is shown?
- ▶ What time will it be in 6 hours?
- ▶ What time will it be in 12 hours?

What do you notice?

- Complete the sentences.
 - ▶ 1 hour after half past 5, the time is _____
 - ▶ 6 hours after 20 minutes to 1, the time is _____
 - ▶ _____ hours after 5 minutes to 1, the time is 5 minutes to 4

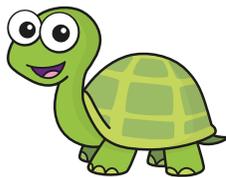
Hours in a day

Reasoning and problem solving

Here are Tiny's workings for finding out how many hours there are in a day.

12	6	12	6	12
1	7	1	7	
2	8	2	8	
3	9	3	9	
4	10	4	10	
5	11	5	11	

There are 25 hours in a day.



What mistake has Tiny made?

Tiny has counted 12 o'clock three times. The final 12 is the start of the next day.

Sam goes to bed at 8 o'clock every night.



She gets up at 6 o'clock every morning.

How many hours is Sam in bed for?

10 hours

How many hours is Sam not in bed for?

14 hours

How did you work out the answers?



The time is 20 minutes past 1



It must be light outside because that is just after lunchtime.

It depends if it is 20 past 1 in the morning or the afternoon.

Do you agree with Tiny?

Explain your answer.

