Time

Master The Curriculum

4

Fluency & Reasoning Teaching Slides

Hours, Minutes & Seconds

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Fluency & Reasoning Teaching Slides

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Activity 1 Hours, Minutes & Seconds

Sort the activities under the headings depending on the approximate length of time they take to complete.

One hour	One minute	One second

PE Lesson

Open a parcel

Tie your shoe laces

Cook a meal

Clap

Blink

Maths lesson

?

What activity might last one hour/minute/second?

Activity 1 Hours, Minutes & Seconds

Sort the activities under the headings depending on the approximate length of time they take to complete.

One hour	One minute	One second
PE Lesson	Open a parcel	Clap
Cook a meal	Tie your shoe laces	Blink
Maths lesson		

Activity 2 Hours, Minutes & Seconds

Convert the times.

One hour	=	minutes
Two hours	=	minutes
Half an hour	=	minutes
Two and a half hours	=	minutes

Activity 2 Hours, Minutes & Seconds

Convert the times.

One hour	=	60 minutes
Two hours	=	120 minutes
Half an hour	=	30 minutes
Two and a half hours	=	150 minutes

Activity 3 Hours, Minutes & Seconds

Convert the times.

One minute	=	seconds
Three minutes	=	seconds
minutes	=	120 seconds
minutes	=	300 seconds

Activity 3 Hours, Minutes & Seconds

Convert the times.

One minute	=	**60** seconds
Three minutes	=	**180** seconds
Two minutes	=	120 seconds
Five minutes	=	300 seconds

Activity 4 Hours, Minutes & Seconds

Leanna reads a chapter of her book in 4 minutes and 46 seconds.

Esin reads a chapter of her book in 360 seconds.

Who reads their chapter the quickest?

Activity 4 Hours, Minutes & Seconds

Leanna reads a chapter of her book in 4 minutes and 46 seconds.

Esin reads a chapter of her book in 360 seconds.

Leanna reads faster than Esin. Leanna can read a chapter of her book in 286 seconds while Esin took 360 seconds to read a chapter of her book.

Who reads their chapter the quickest?

Reasoning 1 Hours, Minutes & Seconds

Zach

If I am silent for five hours at 10p per minute, I will raise £50.

To convert hours to minutes, I multiply the number of hours by 60.

Rosie

Do you agree with Zach and Rosie?
Explain your answer.

Reasoning 1

Hours, Minutes & Seconds

Zach

If I am silent for five hours at 10p per minute, I will raise £50.

To convert hours to minutes, I multiply the number of hours by 60.

Rosie

Do you agree with Zach and Rosie?
Explain your answer.

Zach is incorrect. There are 60 minutes in an hour so
60 × 10p = 600p or £6
£6 × 5 = £30

Rosie is correct.
For example 1 hour = 60 minutes
1 × 60 = 60
2 hours = 120 minutes
2 × 60 = 120

Reasoning 2 Hours, Minutes & Seconds

Five friends run a race.
Their times are shown in the table.

Name	Time
Rosie	114 seconds
Malachi	199 seconds
Zach	100 seconds
Tia	202 seconds
Esin	119 seconds

Which child finished the race closest to two minutes?

What was the difference between the fastest time and the slowest time? Give your answer in minutes and seconds.

Reasoning 2 Hours, Minutes & Seconds

Five friends run a race.
Their times are shown in the table.

Name	Time
Rosie	114 seconds
Malachi	199 seconds
Zach	100 seconds
Tia	202 seconds
Esin	119 seconds

Which child finished the race closest to two minutes?

What was the difference between the fastest time and the slowest time?
Give your answer in minutes and seconds.

Esin was the closest to two minutes, as she is one second quicker than two minutes (120 seconds).

Fastest time 100 seconds, slowest time 202 seconds.

The difference between the fastest and slowest time is one minute and 42 seconds.

Discuss

Hours, Minutes & Seconds

What activity might last one hour/minute/second?

How many minutes are there in an hour?

How can we use a clock face to check?

How could we count the minutes?

How many seconds are there in one minute?

What could we use to check?

How many minutes in ___ hours?

How many seconds in ___ minutes?

Years, Months, Weeks and Days

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Activity 1 Years, Months, Weeks and Days

Use a calendar to help you complete the sentences.

There are ____ months in a year.

There are ____ days in December.

There are ____ days in February.

____ months have 30 days, and ____ months have 31 days.

There are ____ days in a year and ____ days in a leap year.

?

How many days are there in a week?
How many days are there in each month?

Activity 1 Years, Months, Weeks and Days

Use a calendar to help you complete the sentences.

There are 12 months in a year.

There are 31 days in December.

There are 28 days in February.

4 months have 30 days, and 7 months have 31 days.

There are 365 days in a year and 366 days in a leap year.

Activity 2 Years, Months, Weeks and Days

Complete the table.

Number of days	Number of weeks
	5
56	
	5
14	
	12
77	

?

How many days are there in ___ weeks? How many weeks in a year?

Activity 2 Years, Months, Weeks and Days

Complete the table.

Number of days	Number of weeks
35	5
56	8
28	4
14	2
84	12
77	11

Activity 3 Years, Months, Weeks and Days

Leanna

Leanna is 8 years and 3 months old.

Zach is 82 months old.

Who is the oldest?
Explain your answer.

Zach

?

How many months/weeks/days are there in _____ years?

Activity 3 Years, Months, Weeks and Days

Leanna

Leanna is 8 years and 3 months old.

Zach is 82 months old.

Who is the oldest?
Explain your answer.

Zach

Leanna is the oldest. Leanna is 99 months old while Zach is 82 months old.

Reasoning 1

Years, Months, Weeks and Days

Malachi

My birthday is in exactly two weeks.

Tia

My birthday is in exactly two months.

Zach

My birthday is in 35 days.

Use the clues to work out when their birthdays are if today is 8th June.

Reasoning 1

Years, Months, Weeks and Days

Malachi

My birthday is in exactly two weeks.

Malachi – 2 weeks is equal to 14 days so his birthday is 22nd June.

Tia

My birthday is in exactly two months.

Tia – 8th August

Zach

My birthday is in 35 days.

Zach – there are another 22 days left in June plus 13 in July, so his birthday is 13th July.

Use the clues to work out when their birthdays are if today is 8th June.

Reasoning 2 Years, Months, Weeks and Days

Always, Sometimes, Never?

There are 730 days in two years.

True or False?

3 days > 72 hours

2½ years = 29 months

11 weeks 4 days < 10 weeks 14 days

Reasoning 2 Years, Months, Weeks and Days

Always, Sometimes, Never?

There are 730 days in two years.

Sometimes – if both of the years are not leap years this is true. If one is a leap year then there will be 731 days in the two years.

True or False?

3 days > 72 hours

False – 3 days is equal to 72 hours

2½ years = 29 months

False – 2½ years is greater than 29 months

11 weeks 4 days < 10 weeks 14 days

True

Discuss

Years, Months, Weeks and Days

How many days are there in a week?

How many days are there in each month?

How many weeks in a year?

How many days are there in ___ weeks?

What calculation do we need to do to convert days to weeks/weeks to days?

How many months/weeks/days are there in ___ days?

Analogue to Digital – 12 hour

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Activity 1

Analogue to Digital – 12 hour

What time is the analogue clock showing?

Activity 1 Analogue to Digital – 12 hour

What time is the analogue clock showing?

15 minutes past 2

15 minutes to 3

Activity 2

Analogue to Digital – 12 hour

What time is the analogue clock showing?

Activity 2

Analogue to Digital – 12 hour

What time is the analogue clock showing?

11 minutes to 6

7 minutes past 12

Activity 3

Analogue to Digital – 12 hour

What time is it?

The time is ____ past 11.

This can also be written as ____ minutes past 11.

The digital time is ____ : ____

The time is ____ past ____

This can also be written as ____ minutes past ____

The digital time is ____ : ____

Activity 3 Analogue to Digital – 12 hour

What time is it?

The time is 25 past 11.

This can also be written as 25 minutes past 11.

The digital time is 11 : 25

The time is 5 past 2

This can also be written as 5 minutes past 2

The digital time is 2 : 05

Activity 4

Analogue to Digital – 12 hour

Write the times in the digital format.

?

How many minutes is it past the hour?
How can you count the minutes efficiently?

Activity 4

Analogue to Digital – 12 hour

Write the times in the digital format.

2:55

8:20

6:15

Activity 5

Analogue to Digital – 12 hour

Write the times in the digital format.

Activity 5

Analogue to Digital – 12 hour

Write the times in the digital format.

2:52

8:27

6:14

Activity 6

Analogue to Digital – 12 hour

Record the time of each activity in digital format.

	Analogue Clock	Digital (12 hours)
Kayaking	 P.M.	
Canoeing	 P.M.	
Raft building	 A.M.	
Orienteering	 A.M.	

Activity 6 Analogue to Digital – 12 hour

Record the time of each activity in digital format.

	Analogue Clock	Digital (12 hours)
Kayaking	 P.M.	11:45 P.M.
Canoeing	 P.M.	2:20 P.M.
Raft building	 A.M.	8:00 A.M.
Orienteering	 A.M.	6:10 A.M.

Activity 7

Analogue to Digital – 12 hour

Zach leaves home at this time.

He arrives at school 48 minutes later.
What is the time on his digital watch?

:

?

What would the time look like on Zach's digital watch when he left home?

Activity 7

Analogue to Digital – 12 hour

Zach leaves home at this time.

He arrives at school 48 minutes later.
What is the time on his digital watch?

8 : 38

Reasoning 1 Analogue to Digital – 12 hour

Rosie converts the analogue time to digital format.
Here is her answer.

22:02

Explain what Rosie has done wrong.
What should the digital time be?

Reasoning 1 Analogue to Digital – 12 hour

Rosie converts the analogue time to digital format.
Here is her answer.

02:22

Rosie has recorded the minutes past the hour first instead of the hour. The time should be 02:22

Explain what Rosie has done wrong.
What should the digital time be?

Reasoning 2 Analogue to Digital – 12 hour

On a 12-hour digital clock, how many times will the time read the same forwards and backwards?

:

Reasoning 2 Analogue to Digital – 12 hour

On a 12-hour digital clock, how many times will the time read the same forwards and backwards?

12:21

Children can work systematically to work this out.
For example, 12:21, 01:10, 02:20, 03:30 etc.

Reasoning 3 Analogue to Digital – 12 hour

Malachi arrives at the train station in the morning at the time shown.

Which trains could he catch?

Destination	Departs
York	07:10 a.m.
New Pudsey	09:25 a.m.
Bramley	09:42 a.m.
Leeds	10:03 a.m.

How long will Malachi have to wait for each train?

Reasoning 3 Analogue to Digital – 12 hour

Malachi arrives at the train station in the morning at the time shown.

Which trains could he catch?

Destination	Departs
York	07:10 a.m.
New Pudsey	09:25 a.m.
Bramley	09:42 a.m.
Leeds	10:03 a.m.

How long will Malachi have to wait for each train?

Malachi could catch the train to Bramley or Leeds.
He would have to wait 7 minutes to go to Bramley and 28 minutes to go to Leeds.

Discuss

Analogue to Digital – 12 hour

What time is the analogue clock showing?

How many minutes is it past the hour? How can you count the minutes effectively?

How do we record each time in digital format?

What does a.m./p.m. mean?

Can you order the activities starting with the earliest?

What would the time look like on Zach's digital watch when he left home?

Analogue to Digital – 24 hour

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Activity 1 Analogue to Digital – 24 hour

Match the analogue and digital times.

P.M.

A.M.

P.M.

00:25

22:00

14:35

?

Why it is important to know if it is a.m. or p.m.?

Activity 1 Analogue to Digital – 24 hour

Match the analogue and digital times.

P.M.

A.M.

P.M.

00:25

22:00

14:35

Activity 2

Analogue to Digital – 24 hour

Tia leaves school at this time.

:

She arrives at her violin lesson 40 minutes later and has a 1-hour lesson.
She arrives home 55 minutes later.
Show what time Tia gets home in 24-hour digital format.

?

What time does she leave school on a 24-hour digital clock?

Activity 2

Analogue to Digital – 24 hour

Tia leaves school at this time.

17:55

She arrives at her violin lesson 40 minutes later and has a 1-hour lesson.
She arrives home 55 minutes later.
Show what time Tia gets home in 24-hour digital format.

Activity 3

Analogue to Digital – 24 hour

Write the times in 24-hour digital format.

A.M.

P.M.

P.M.

?

Why is it important if it is A.M. or P.M.?

Activity 3

Analogue to Digital – 24 hour

Write the times in 24-hour digital format.

A.M.

02:55

P.M.

20:20

P.M.

18:15

Activity 4

Analogue to Digital – 24 hour

Write the times in 24-hour digital format.

A.M.

P.M.

P.M.

Activity 4

Analogue to Digital – 24 hour

Write the times in 24-hour digital format.

A.M.

03:03

P.M.

20:28

P.M.

18:19

Reasoning 1

Analogue to Digital – 24 hour

Three children are meeting in the park.

Rosie

We are meeting at 14:10.

Zach

We are meeting at 02:10 p.m.

Esin

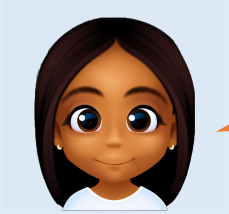
We are meeting at ten past two.

Will all the children meet at the same time?
Explain your answer.

Reasoning 1

Analogue to Digital – 24 hour

Three children are meeting in the park.



Rosie

We are meeting at 14:10.

Zach

We are meeting at 02:10 p.m.

Esin

We are meeting at ten past two.

Yes. All the children will meet at the same time in the park.

Will all the children meet at the same time?
Explain your answer.

Reasoning 2

Analogue to Digital – 24 hour

Malachi

To change any time after midday from 12-hour to 24-hour digital time just add 12 to the hours.

Will this always be true?
Are there any examples where this isn't the case?

Reasoning 2 Analogue to Digital – 24 hour

Malachi

To change any time after midday from 12-hour to 24-hour digital time just add 12 to the hours.

Will this always be true?
Are there any examples where this isn't the case?

Sometimes true.

You need to add 12 to the hour, but not if it is 12 in the hours e.g. 12:04 p.m.

Reasoning 3

Analogue to Digital – 24 hour

Can you match the time dominoes together so that the touching times are the same?

20:55	13:50	09:55
Ten to two	Five to ten	Ten to three
15:05	02:50	16:10
Ten past four	Five past three	Five to nine

Can you create your own version for your partner?

Discuss

Analogue to Digital – 24 hour

What do you notice about the time 1 o'clock in the afternoon on a 24-hour digital clock?

How will the time be shown for 3 o'clock in the morning/afternoon?

How do you know?

What time is the analogue clock showing?

Why is it important to know if it is a.m. or p.m.?

What time does she leave school on a 24-hour digital clock?