

Maths

Week commencing: 14.04.2020

Lesson 1

Learning Outcome: To read and order times in words for analogue and digital clocks.

Digital clocks always record the number of hours passed and the number of minutes that have passed since that hour.



Both clocks represent the same time.

The digital clock shows seven forty-eight. The 7 is before the colon so it is telling us the hour. The 48 is after the colon so it is telling us how many minutes have passed. This means that forty-eight minutes have passed since seven o'clock.



On the analogue clock this means twelve minutes to eight. Seven forty-eight is the same as twelve minutes to eight.

Star Words



format

compare

earlier

later

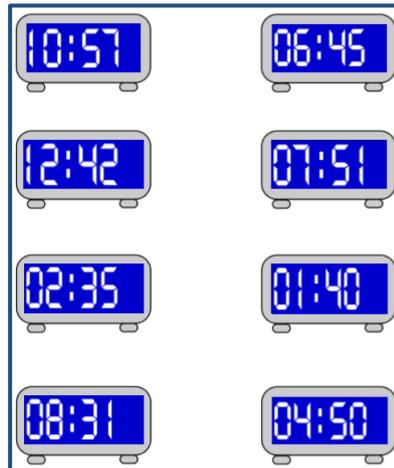
earliest

latest

chronological order

Task:

- Choose a clock, read the digital time and explain what the digits represent.
- State how many minutes have passed since _____ o'clock.
- Say the digital time and analogue times together and understand that they mean the same.



Challenge:

Here is an information board at a station. It shows when trains leave.

Train A	03:19
Train B	15:32
Train C	05:43
Train D	20:56
Train E	21:07

Put the trains in order from earliest leaving to latest leaving in the day.

Lesson 2

Learning Outcome: To understand the units of measured time.

Here are some examples of stop clocks/watches. These are all for measuring how long an interval is, rather than showing what time of day it is. This is why the scale starts a zero.

Find an online stop watch. Think about:

- What is being measured?
- How many seconds are measured before the minute indicator moves to 1?
- How many 'elephants' do you say in 5 seconds? 10 seconds? 20 seconds? 30 seconds? (Take this in turns to measure with a grown up or sibling. Speak at a sensible and regular speed and use the stop watch accurately.)



00:00:00

Star Words:

measured time

second

stopwatch

stop clock

timer

estimate

time interval

Task:

Think carefully about what you know about the length of a second, a minute and an hour. Which one would you use to measure how long the following activities last?

1.  I have chosen _____ to measure this because _____.

Flying to Spain for a holiday

2. 

Walking to the shops with your family

3. 

Writing your full name in your best writing

4. 

How long you spend on computer games each day

Challenge:

Miss Cummings and Miss Caudwell are waiting for their bus.

Miss Cummings: "My bus took half an hour and 7 minutes to arrive."

Miss Caudwell: "My bus took seven lots of 5 minutes to arrive."

Whos bus took the longest? Explain your answer.

Lesson 3

Learning Outcome: Measuring intervals in seconds and in minutes and seconds.

Why is it important to measure accurately?

If we do not measure things accurately, for example measuring ingredients to bake a cake, then this inaccurate results that are not close to the truth; measuring accurately is a useful skill to have.

With a grown up or sibling, take in turns to complete the following activities. Discuss how long you think it will take you to complete (in seconds). You will need a stop watch (you can access one online or on a phone/tablet).

"I think it will take me 43 seconds to write my name three times".

- a) write your name neatly three times b) sing happy birthday twice c) list the multiples of the 4x tables (up to

Star Words 

- time (as a transitive verb)
- measure
- compare
- estimate
- actual
- longer
- shorter

Task:

- Choose an activity and estimate how long you think it will take you in minutes or in minutes and seconds - write your estimate down.
- Work closely with your partner and start when they start the stopwatch.
- Complete the activity and find out from your partner how long you took

Activity	Estimated Time	Actual Time
Run around your garden three times	_____ minutes and _____ seconds	_____ minutes and _____ seconds
Count backwards from 20 to 0		
Do ten star jumps		
Walk to your bedroom and back		

The shortest activity was _____.

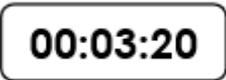
It took _____.

The longest activity was _____.

It took _____.

Challenge:

Miss Armstrong says that in another 150 seconds, the stopwatch will show 4 minutes 70 seconds.



Miss Caudwell says that in another 150 seconds, the stopwatch will show 5 minutes 50 seconds.

Who is correct? Explain how you know.

Lesson 4

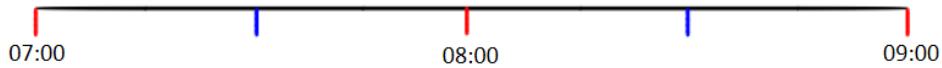
Learning outcome: Calculating and comparing intervals given start and finish times.

Here is a television schedule from a children's channel.

07:10	Bogus The Fungusman
07:25	Nico the Naughty
07:40	Newzbeatz
07:45	Terrible Topics
08:15	Newzbeatz
08:25	Stacey Tumbler

Star Words

- schedule
- timetable
- start time
- end time
- calculate
- timeline



Today you will be calculating how long programmes last for by using the start time and end time (we use the start time of the next programme). We can calculate the length of an interval by using a 'time' line (as seen above), which is like a number line. Looking at the time line above discuss the following questions with a grown up.

- What times could we write at the blue lines? Explain how you know?
- What times does Bogus and the Fungusman start and finish?
- Where should these times go on this timeline?

Can you calculate the difference between 07:10 and 07:25?

To work out the difference, we can do this by counting on (just like finding the difference on a number line) and counting in multiples of 5 minutes. It is also important to know that column subtraction is not an appropriate method as time does not use the same number system.

Task:

Using a timeline (you will need to draw one similar to the one from the first task), calculate the lengths of films. For each pair of films, you must state which one is longer or shorter by completing the sentence.

Top town Cinema – Screen 3 Schedule

Film	Start time
The Lion Princess	04:45pm
Back to Wizardland	06:10pm
Space Attack!	07:55pm
The Fire	10:10pm

Film	Length (in hours and minutes)	Which of these two films is longer?
The Lion Princess		The longest film was.... I know this because...
Back to Wizardland		

Film	Length (in hours and minutes)	Which of these two films is longer?
Space Attack!		
The Fire		

The final film finishes at 11:45pm. Doors close at midnight!

Challenge:

Miss Armstrong set off hiking at 25 minutes past eight in the morning. She hiked for 1 hour and 50 minutes.

She said "I finished at 10:15 because 2 hours later will be 10:25 then I took off 10 minutes."

Is she correct? Explain your reasoning.