# Ready-to-go Lesson Slides

Time

Lesson 1

Sum3

# To be able to convert between seconds, minutes and hours

**STARTER:**

Starter Activity: What time do these clocks show?



**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.
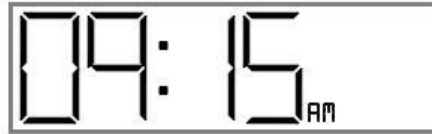
# To be able to convert between seconds, minutes and hours

**STARTER:**

Starter Activity: What time do these clocks show?

**2 o'clock**

**quarter past nine in the morning**

**half past 4**

**quarter to 7**

**Success Criteria:**

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**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

Sort the activities based on the length of time they take to do.

| One second | One minute | One hour |
| --- | --- | --- |

Put your shoes on

Football club

Run around the field

Maths lesson

Stamp your foot

Click your fingers

**Success Criteria:**

**Mastery:**
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Sort the activities based on the length of time they take to do.

| One second | One minute | One hour |

| Put your shoes on | Football club | Run around the field |

| Maths lesson | Stamp your foot | Click your fingers |

**Success Criteria:**

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**One second – stamp your foot, click your fingers**
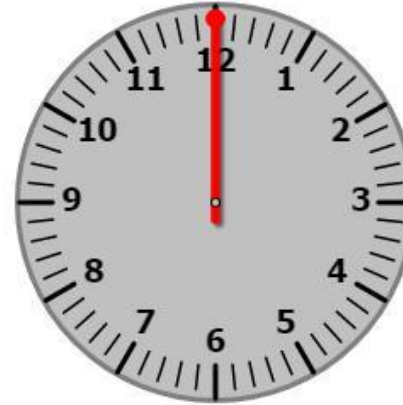**One minute – put your shoes on, run around the field**
**One hour – maths lesson, football club**

# To be able to convert between seconds, minutes and hours
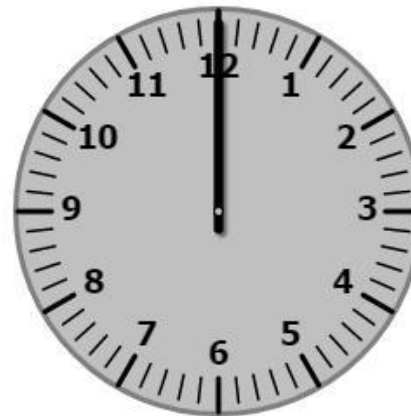
**TALKING TIME:**

## How many seconds are there in a minute?
HINT: Use the clock to count them



## How many minutes are there in an hour?
HINT: Use the clock to count them



**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.
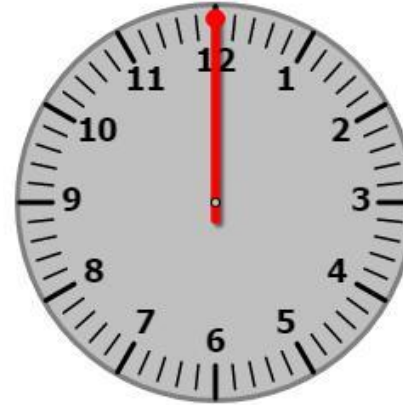
**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

How many seconds are there in a minute?
HINT: Use the clock to count them

How many minutes are there in an hour?
HINT: Use the clock to count them

**60 seconds in one minute**
**60 minutes in one hour**

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

**To be able to convert between seconds, minutes and hours**

ACTIVITY 1:

1 minute  = [　] seconds

2 minutes = [　] seconds

[　] seconds =  ½ minute

60 minutes = [　] hour

180 minutes = [　] hours

[　] minutes =  3 hours

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

**To be able to convert between seconds, minutes and hours**

ACTIVITY 1:

1 minute = **60** seconds

2 minutes = **120** seconds

**30** seconds = ½ minute

60 minutes = **1** hour

180 minutes = **2** hours

**180** minutes = 3 hours

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

Josh writes a paragraph in his book in 4 minutes and 26 seconds. Harry writes his paragraph in 315 seconds.
Who writes their paragraph the quickest?

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

Josh writes a paragraph in his book in 4 minutes and 26 seconds. Harry writes his paragraph in 315 seconds.
Who writes their paragraph the quickest?

**Success Criteria:**

**Mastery:**
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**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

**Josh because 4 minutes and 26 seconds is equivalent to 266 seconds which is quicker than Harry's 315 seconds.**

# To be able to convert between seconds, minutes and hours

**ACTIVITY 2:**

1.  I bake a cake which takes 1 hour and 16 minutes to cook. How long is this in minutes?

2. A marathon runner runs for a total of 324 minutes. How long is the runner running for in hours and minutes?

3. Playtime is 15 minutes long. How many seconds is this?

4. When going on holiday, your teacher can take two different routes. On the map the first route takes 256 minutes. On the second route, the time is 3 hours and 56 minutes. Which route Will get them to their holiday destination the quickest?

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

What is the difference in the length of time it takes to reach the holiday destination?

# To be able to convert between seconds, minutes and hours

<u>ACTIVITY 2:</u>

1.  I bake a cake which takes 1 hour and 16 minutes to cook. How long is this in minutes?     76 minutes

2. A marathon runner runs for a total of 324 minutes. How long is the runner running for in hours and minutes?
5 hours 24 minutes

3. Playtime is 15 minutes long. How many seconds is this?
900 seconds

4. When going on holiday, your teacher can take two different routes. On the map the first route takes 256 minutes. On the second route, the time is 3 hours and 56 minutes. Which route Will get them to their holiday destination the quickest?
3 hours 56 minutes (because 256 minutes = 4hours 16minutes)

| **Success Criteria:** |
| :--- |
| <u>Mastery:</u><br>I can use my knowledge of seconds, minutes and hours to estimate and convert between timings. |
| <u>Greater Depth:</u><br>I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers. |

What is the difference in the length of time it takes to reach the holiday destination?
20 minutes

# To be able to convert between seconds, minutes and hours

### ACTIVITY 3:

Five friends compete in a cycling race. Their times are shown in the table below.

| Name | Time |
|------|------|
| Alex | 1 minute 16 seconds |
| Bob | 103 seconds |
| Chantelle | 98 seconds |
| Ellie | 1 minute 39 seconds |
| Victoria | 92 seconds |

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

What order did the children finish the race in?
What is the difference between the fastest finisher and the slowest finisher?

# To be able to convert between seconds, minutes and hours

ACTIVITY 3:

Five friends compete in a cycling race. Their times are shown in the table below.

| Name | Time |
|------|------|
| Alex | 1 minute 16 seconds |
| Bob | 103 seconds |
| Chantelle | 98 seconds |
| Ellie | 1 minute 39 seconds |
| Victoria | 92 seconds |

Success Criteria:

Mastery:
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

Greater Depth:
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

What order did the children finish the race in?
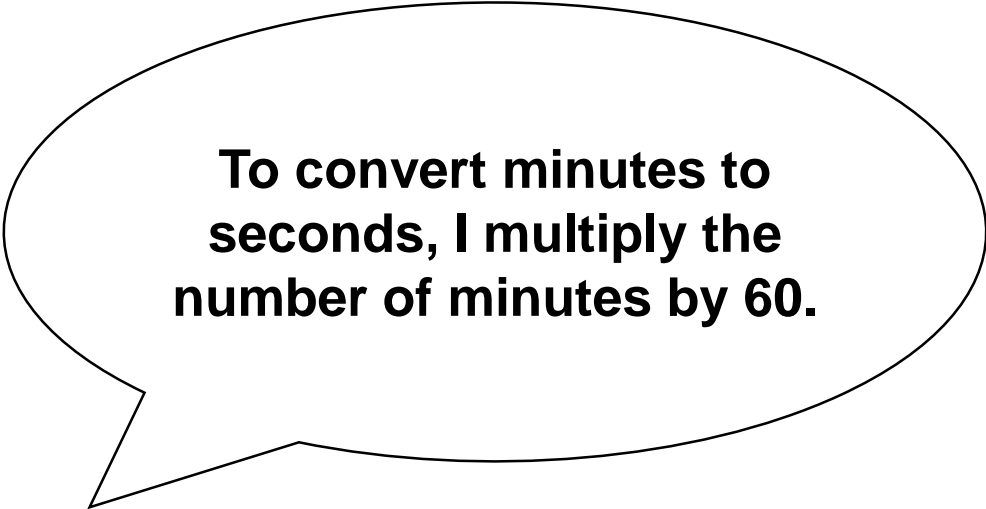1st – Alex, 2nd – Victoria, 3rd – Chantelle, 4th – Ellie, 5th - Bob
What was the difference between the fastest finisher and the slowest finisher?
Alex was 27 seconds faster than Bob.

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

Ellie says,

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

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.
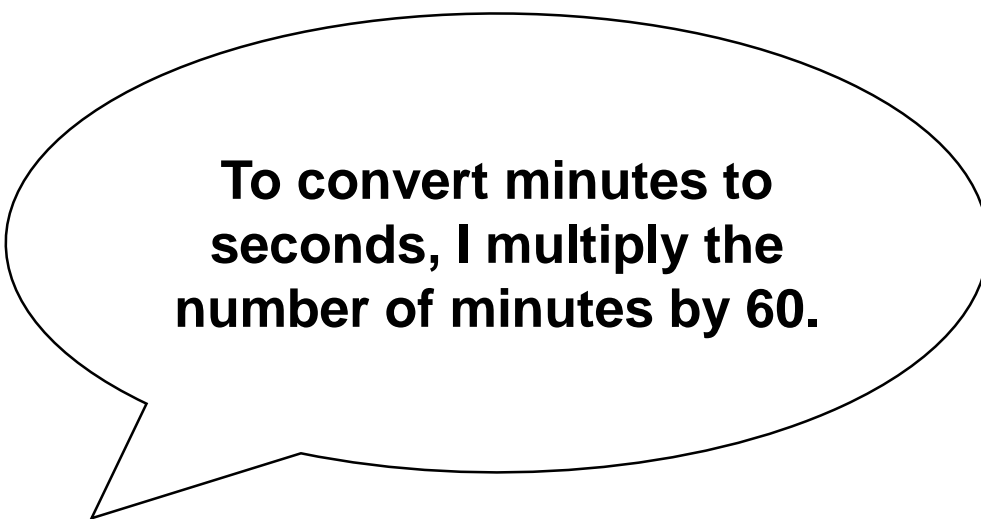
**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

Is she correct? Can you explain why?

# To be able to convert between seconds, minutes and hours

**TALKING TIME:**

Ellie says,

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

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

Is she correct? Can you explain why?

**Yes because 1 minute = 60 seconds, 2 minutes = 120 seconds, 3 minutes = 180 seconds and the pattern would continue in the same way.**

# To be able to convert between seconds, minutes and hours

**ACTIVITY 4:**

Bob takes part in a cycle race to raise money for charity.
He says,

**If I ride for 4 hours at 10p a minute I will raise £40.**

Do you agree with Bob?
Explain why.

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

ACTIVITY 4:

Bob takes part in a cycle race to raise money for charity.
He says,

**If I ride for 4 hours at 10p a minute I will raise £40.**

Do you agree with Bob?
Explain why.

**No because 4 hours is equivalent to 240 minutes. 240 minutes x 10p = 2400p or £24.00 which is less than £40.**

# To be able to convert between seconds, minutes and hours

EVALUATION:

**True or False?**

a) To convert seconds to minutes you multiply by 60.

b) 134 seconds is longer than 2 minutes.

c) 106 minutes is equivalent to 1 hour and 46 minutes

d) The number of hours will always be less than the number of minutes once converted.

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.

# To be able to convert between seconds, minutes and hours

EVALUATION:

**True or False?**
a) To convert seconds to minutes you multiply by 60.
**FALSE – you divide by 60.**

b) 134 seconds is longer than 2 minutes.
**TRUE – 2 minutes = 120 seconds**

c) 106 minutes is equivalent to 1 hour and 46 minutes
**TRUE – 60 minutes = I hour**

d) The number of hours will always be less than the number of minutes once converted.
**TRUE – to convert hours into minutes you must multiply by 60 thus giving a larger number.**

**Success Criteria:**

**Mastery:**
I can use my knowledge of seconds, minutes and hours to estimate and convert between timings.

**Greater Depth:**
I can apply my knowledge of converting between seconds, minutes and hours when using reasoning to explain my answers.