

# A Day Out



Start Time	End Time	Event	Duration
8:30 a.m.	10:30 a.m.	journey to the seaside	
10:30 a.m.	11:15 a.m.	walk along the beach	
11:15 a.m.	12:00 midday	building sandcastles	
12:00 midday	1:10 p.m.	lunch	
1:10 p.m.	2:00 p.m.	swimming in the sea	
2:00 p.m.	3:05 p.m.	gift shopping	
3:05 p.m.	3:45 p.m.	fun time on the beach	
3:45 p.m.	5:15 p.m.	journey back home	

Calculate the duration of each activity.

Was the journey to the seaside longer or shorter than the journey home?

---

Which activity took the longest time to complete?

---

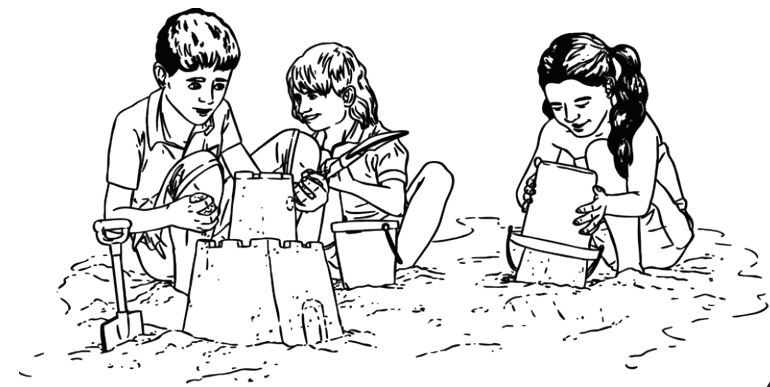
Did the walk along the beach take a longer or shorter length of time than swimming in the sea?

---

Which activity took the shortest amount of time?

---

# A Day Out



Start Time	End Time	Event	Duration
8:30 a.m.	10:30 a.m.	journey to the seaside	<b>2 hours</b>
10:30 a.m.	11:15 a.m.	walk along the beach	<b>45 minutes</b>
11:15 a.m.	12:00 midday	building sandcastles	<b>45 minutes</b>
12:00 midday	1:10 p.m.	lunch	<b>1 hour and 10 minutes</b>
1:10 p.m.	2:00 p.m.	swimming in the sea	<b>50 minutes</b>
2:00 p.m.	3:05 p.m.	gift shopping	<b>1 hour and 5 minutes</b>
3:05 p.m.	3:45 p.m.	fun time on the beach	<b>40 minutes</b>
3:45 p.m.	5:15 p.m.	journey back home	<b>1 hour and 30 minutes</b>

Calculate the duration of each activity.

Was the journey to the seaside longer or shorter than the journey home?

**longer**

Which activity took the longest time to complete?

**journey to the seaside**

Did the walk along the beach take a longer or shorter length of time than swimming in the sea?

**shorter**

Which activity took the shortest amount of time?

**fun time on the beach**

A

I left home at 8:05 a.m. and arrived at school at 8:40 a.m.

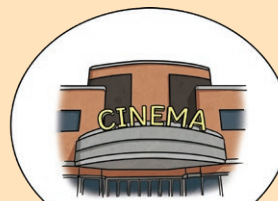
Luca

I left home at 8:00 a.m. and arrived at school at 8:35 a.m.

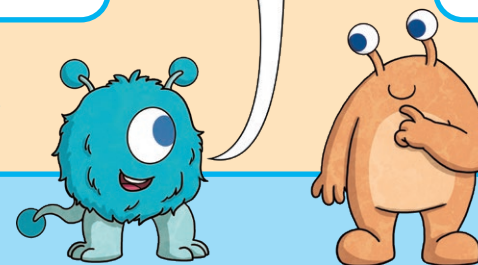
Oli

C

I watched Superdog. It began at 18:00 and finished at 19:15.



I watched Cat World. It began at 18:15 and finished at 19:30.



B



Regent Studies | www.regentstudies.com

D

The bus left at 18:25. It arrived in Skipdale at 19:00. It took me longer to get there than Shamil.

It took me 45 minutes to get to Skipdale on the bus.

Lily

Shamil



# Time Duration

Figure 1

Lesson	Time	Duration
phonics	9.15 a.m. - 9.30 a.m.	_____ minutes
maths	9.30 a.m. - 10.30 a.m.	_____ minutes
break	10.30 a.m. - 10.50 a.m.	_____ minutes
English	10.50 a.m. - 11.45 a.m.	_____ minutes
lunch	11.45 a.m. - 12.35 p.m.	_____ minutes

# Time Duration

Figure 2

A



a.m.

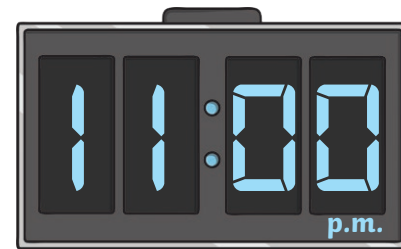


p.m.

B



a.m.



p.m.

C



a.m.



p.m.



# Time Duration

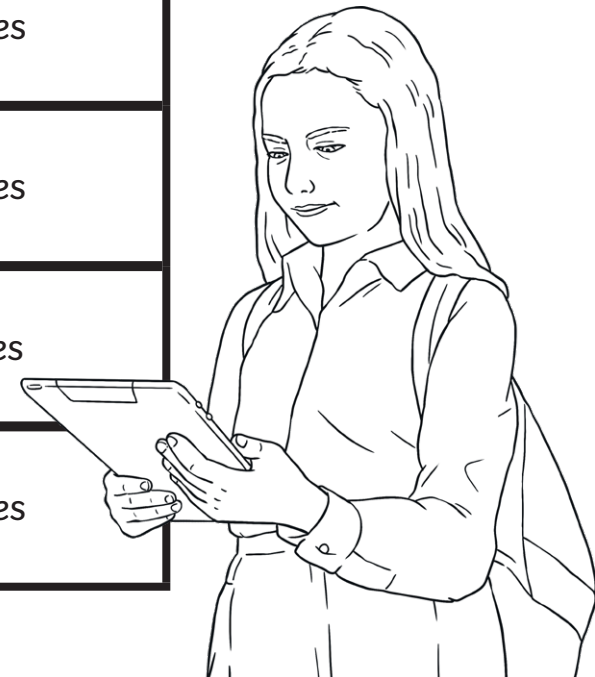
Figure 3

Destination	Depart	Arrive	Duration
Spain			_____ hours and _____ minutes
Portugal			_____ hours and _____ minutes
Iceland			_____ hours and _____ minutes
Greece			_____ hours and _____ minutes
Sweden			_____ hour and _____ minutes

# Time Duration Answers


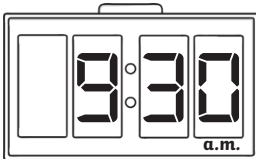
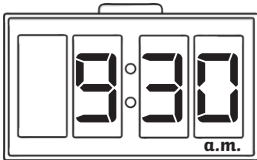


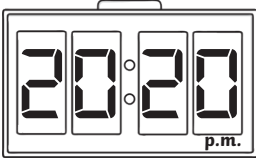
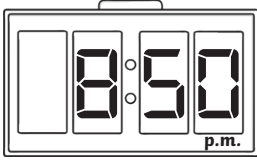
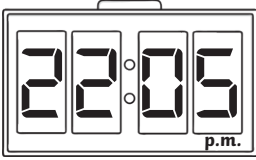
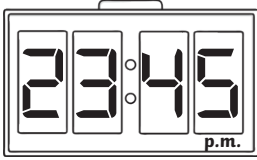
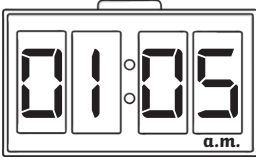
## Figure 1

Lesson	Time	Duration
phonics	9.15 a.m. - 9.30 a.m.	<b>15</b> minutes
maths	9.30 a.m. - 10.30 a.m.	<b>60</b> minutes
break	10.30 a.m. - 10.50 a.m.	<b>20</b> minutes
English	10.50 a.m. - 11.45 a.m.	<b>55</b> minutes
lunch	11.45 a.m. - 12.35 p.m.	<b>50</b> minutes



# Time Duration Answers

## Figure 3

Destination	Depart	Arrive	Duration
Spain			2 hours
Portugal			2 hours and 15 minutes
Iceland			3 hours and 20 minutes
Greece			2 hours and 15 minutes
Sweden			1 hour and 30 minutes



Name:

Date:

**Same-Day Intervention Assessment**

Child A

Child B

Child C

Child D

Child E

Compare durations of time using a variety of clocks.

Use  $<$ ,  $>$  and  $=$  to compare durations of time.

Solve reasoning problems involving durations of time.

**Additional Notes**

# Same-Day Intervention: Comparing Durations of Time

Children will learn to compare durations of time in hours and minutes using analogue, 12-hour and 24-hour digital clocks.

## Pre-Intervention Check

To access this intervention, can the children...

\*Tick as appropriate.

...read the time on an analogue and a digital clock?\*

...calculate durations of time or start and end times?\*

## Explaining the Misconception in Mathematical Understanding

### Common Misconception:

Not understanding how to compare durations of time when one spans over the midday or midnight threshold.

*For example, children may write that 7:30 a.m. – 11:15 a.m. < 10:00 a.m. – 1:45 p.m. when the duration is actually of equal length.*

This intervention will prepare children to solve problems using timetables.

## Summary of Intervention

Compare durations of time using a variety of clocks.

Use <, > and = to compare durations of time.

Solve reasoning problems involving durations of time.

Preparation	Key Vocabulary
<ul style="list-style-type: none"><li>• <b>Time Duration</b> (1 per pair)</li><li>• Whiteboards and pens</li><li>• <b>Challenge Cards</b> (1 per pair)</li><li>• <b>A Day Out</b> (1 per pair)</li></ul>	<ul style="list-style-type: none"><li>• Time, a.m., p.m.</li><li>• Start, finish</li><li>• Depart, arrive</li><li>• Shortest, longest</li><li>• Less than (&lt;), greater than (&gt;), equal to (=)</li><li>• Timetable</li><li>• Duration</li></ul>

**Key Questions for Deepening Understanding**

**Compare durations of time using a variety of clocks.**

Put children into pairs and give each pair a copy of **Time Duration** figure 1.

Lesson	Time	Duration
phonics	9.15 a.m. - 9.30 a.m.	_____ minutes
maths	9.30 a.m. - 10.30 a.m.	_____ minutes
break	10.30 a.m. - 10.50 a.m.	_____ minutes
English	10.50 a.m. - 11.45 a.m.	_____ minutes
lunch	11.45 a.m. - 12.35 p.m.	_____ minutes

- **What is this timetable showing?** (school lessons)
- **Is there anything different about the times?**
- **Why do the times have a.m. or p.m. at the end?** (a.m. means the morning and p.m. means the afternoon)
- **Can you explain when a time changes from a.m. to p.m.?** (Any time after midnight up to 12 o'clock midday is a.m. and any time after midday until 12 o'clock midnight is p.m.)
- **How can you calculate the duration of each lesson?**

Children calculate the duration of each lesson on a whiteboard.

- **What method did you use? Can you talk us through your method? Did you get the same answer as your partner?**

Record children's answers on the table (as shown).

Lesson	Time	Duration
phonics	9.15 a.m. - 9.30 a.m.	15 minutes
maths	9.30 a.m. - 10.30 a.m.	60 minutes
break	10.30 a.m. - 10.50 a.m.	20 minutes
English	10.50 a.m. - 11.45 a.m.	55 minutes
lunch	11.45 a.m. - 12.35 p.m.	50 minutes

- **Which lesson is the longest/shortest?** (maths/phonics)
- **What is the difference in minutes between the longest and shortest lesson?** (45 mins) **Explain how you know.**

- **What is the difference in minutes between break and lunch?** (30 mins) **How do you know?**
- **How much longer is the English lesson than the phonics lesson?** (40 mins) **Prove it.**

Give each pair a copy of **Time Duration** Figure 2.

- **What do you notice about the different clocks? How are they the same? How are they different?**

(a.m. and p.m. on the analogue and 12-hour digital clock, no a.m. or p.m. on the 24-hour digital clock, all clocks showing different times)

Focus on the analogue clocks. (A)

- **How much time has passed between the first time and the second time on the analogue clocks? Explain how you worked it out.**

Focus on the 12-hour digital clocks. (B)

- **How much time has passed between the first time and the second time on the 12-hour digital clocks? Explain how you worked it out.**

Focus on the 24-hour digital clocks. (C)

- **How much time has passed between the first time and the second time on the 24-hour digital clocks? How do you know?**
- **Which clocks show the longest/shortest duration of time?** (A = longest, B = shortest) **Explain how you know.**

Give each pair a copy of Time Duration Figure 3.

Explain that this table shows flight durations to different countries.

Write the following on a whiteboard and ask children to fill in the gaps: The duration of the flight to Spain is \_\_\_\_\_.

Repeat for each of the destinations.

- **Which was the longest/shortest journey?** (longest = Iceland, shortest = Sweden)
- **Did any of the destinations have the same journey time?** (Portugal and Greece) **How do you know? Prove it.**

**Key Questions for Deepening Understanding (Continued)**

- **Was the journey time to Sweden longer or shorter than the journey time to Greece?** (shorter)
- **Was the journey time to Portugal longer or shorter than the journey time to Spain?** (longer)
- **What is the difference between the journey time to Sweden and the journey time to Greece?** (45 minutes) **Explain how you know.**

(11:00 a.m. – 2.30 p.m. > 2.30 p.m. – 5.30 p.m.  
09:00 – 15.30 > 15:30 – 20.30  
3.00 a.m. – 5:00 a.m. = 3.30 p.m. – 5.30 p.m.  
19:00 – 21.15 < 19:50 – 22:10)

**Solve reasoning problems involving durations of time.**

Give each pair a copy of **Challenge Cards**.

Children focus on Card A.

- **What is the same about the boys' journeys to school?** (length of journey)
- **What is different about the boys' journeys to school?** (departure and arrival time)

Children focus on Card B.

- **Which clocks show the longest duration of time?** (The difference between the times on the analogue clocks is 2 hrs 45 mins.) **Explain how you know.**

Children focus on Card C.

- **Which film was the shortest?** (Neither because they were both the same length.) **Explain how you know.**

Children focus on Card D.

- **Is Lily's statement correct? Why? Prove it.** (Incorrect – Lily took 35 mins.)

**Use <, > and = to compare durations of time.**

Write <, > and = on a whiteboard.

- **What do these symbols represent?** (less than, greater than, equal to)

Write the following on a whiteboard:

11:00 a.m. – 2.30 p.m. \_\_\_ 2.30 p.m. – 5.30 p.m.

09:00 – 15.30 \_\_\_ 15:30 – 20.30

3.00 a.m. – 5:00 a.m. \_\_\_ 3.30 p.m. – 5.30 p.m.

19:00 – 21.15 \_\_\_ 19:50 – 22:10

- **Can you use these symbols to compare the durations of time?**

Children calculate the durations of time on a whiteboard and choose the correct symbol to make each statement correct.

**Additional Opportunities to Reinforce Learning**

Give each pair a copy of **A Day Out**. Children calculate the duration of time for each activity. Then, answer the questions about the duration of different events. Award one point for each question answered correctly.

Challenge children to write their own questions for their partner to answer. Award an extra bonus point for each question answered correctly. The child with the most points is the winner.

### Home Learning Slip

Today, at school, your child has been learning to compare durations of time. To help your child further with this learning, you could complete this activity.

During the week when your child is watching their favourite television programmes, write down how long each programme lasts. For example, 40 minutes, 1 hour and 5 minutes.

Ask them to compare how long each programme lasted. Which was the shortest programme? Which was the longest programme? Can they calculate the difference in the duration of time of two of the programmes?

**Thank you for your support with this. Your help will really make a difference to your child.**

### Home Learning Slip

Today, at school, your child has been learning to compare durations of time. To help your child further with this learning, you could complete this activity.

During the week when your child is watching their favourite television programmes, write down how long each programme lasts. For example, 40 minutes, 1 hour and 5 minutes.

Ask them to compare how long each programme lasted. Which was the shortest programme? Which was the longest programme? Can they calculate the difference in the duration of time of two of the programmes?

**Thank you for your support with this. Your help will really make a difference to your child.**

### Home Learning Slip

Today, at school, your child has been learning to compare durations of time. To help your child further with this learning, you could complete this activity.

During the week when your child is watching their favourite television programmes, write down how long each programme lasts. For example, 40 minutes, 1 hour and 5 minutes.

Ask them to compare how long each programme lasted. Which was the shortest programme? Which was the longest programme? Can they calculate the difference in the duration of time of two of the programmes?

**Thank you for your support with this. Your help will really make a difference to your child.**

### Home Learning Slip

Today, at school, your child has been learning to compare durations of time. To help your child further with this learning, you could complete this activity.

During the week when your child is watching their favourite television programmes, write down how long each programme lasts. For example, 40 minutes, 1 hour and 5 minutes.

Ask them to compare how long each programme lasted. Which was the shortest programme? Which was the longest programme? Can they calculate the difference in the duration of time of two of the programmes?

**Thank you for your support with this. Your help will really make a difference to your child.**