

Measurement: Hours and Minutes

Aim: Estimate and read time with increasing accuracy to the nearest minute; record and compare time in terms of seconds, minutes and hours; use vocabulary such as o'clock, am/pm, morning, afternoon, noon and midnight. I can compare times in hours and minutes.	Success Criteria: I can order events which are timed in hours and minutes. I can calculate the difference between two timed events.	Resources: Lesson Pack Whiteboards and pens - class set
	Key/New Words: Hours, minutes, compare, shortest, longest, difference.	Preparation: Differentiated Comparing Times in Hours and Minutes Activity Sheet - 1 per child

Prior Learning: It will be helpful if children have compared activities in minutes and seconds (covered in Estimate, Time and Compare (Lesson 2): Minutes and Seconds).

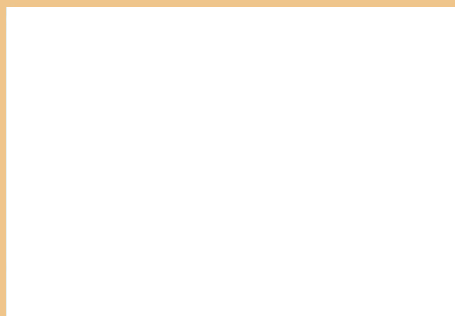
Learning Sequence

	Order, Order! Children order times in minutes and seconds into order from the least time taken to the most.	
	The Marathon: Read the information on the Lesson Presentation to introduce the marathon race and explain that the marathon covers just over 42 km, approximately 26 miles. The Lesson Presentation shows the best times for the marathon for six world record holding athletes. Children order the athletes from the slowest to the fastest times, compare times using < or > and calculate the difference between two times.	
	Twinkl Airways: The Lesson Presentation shows flight times from London to different cities around the world. In pairs, children order the flight times from shortest to longest and answer questions comparing the flight times.	
	Comparing Hours and Minutes: Children complete the differentiated Comparing Times in Hours and Minutes Activity Sheet , comparing and ordering times in hours and minutes and calculating differences. <div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> Children compare, order and calculate differences (less than an hour difference) between times of Women's Marathon World Records. </div> <div style="text-align: center;"> Children compare, order and calculate differences (up to 11 hours) between flight times. </div> <div style="text-align: center;"> Children compare, order and calculate differences (up to 11 hours) between driving times between Paris and other European cities. They answer a reasoning word problem where they compare two different journey times. </div> </div>	
	Match the Cost: Children work with a talk partner, using their reasoning skills to match the costs of air fares to flights by ordering the length of flight times .	

Masterit

Researchit: Children research six other marathon world record holders and order their times.

Costit: Children work out the costs of flights. If it cost £20 per hour (or part of an hour) for a flight, how much would it cost for each Twinkl Airways flight?



Maths

Measurement

Hours and Minutes



Aim

- I can compare times in hours and minutes.

Success Criteria

- I can order events which are timed in hours and minutes.
- I can calculate the difference between two timed events.

Order, Order!



Lucy has timed herself completing some activities.
Order these activities from the shortest time taken to the longest:



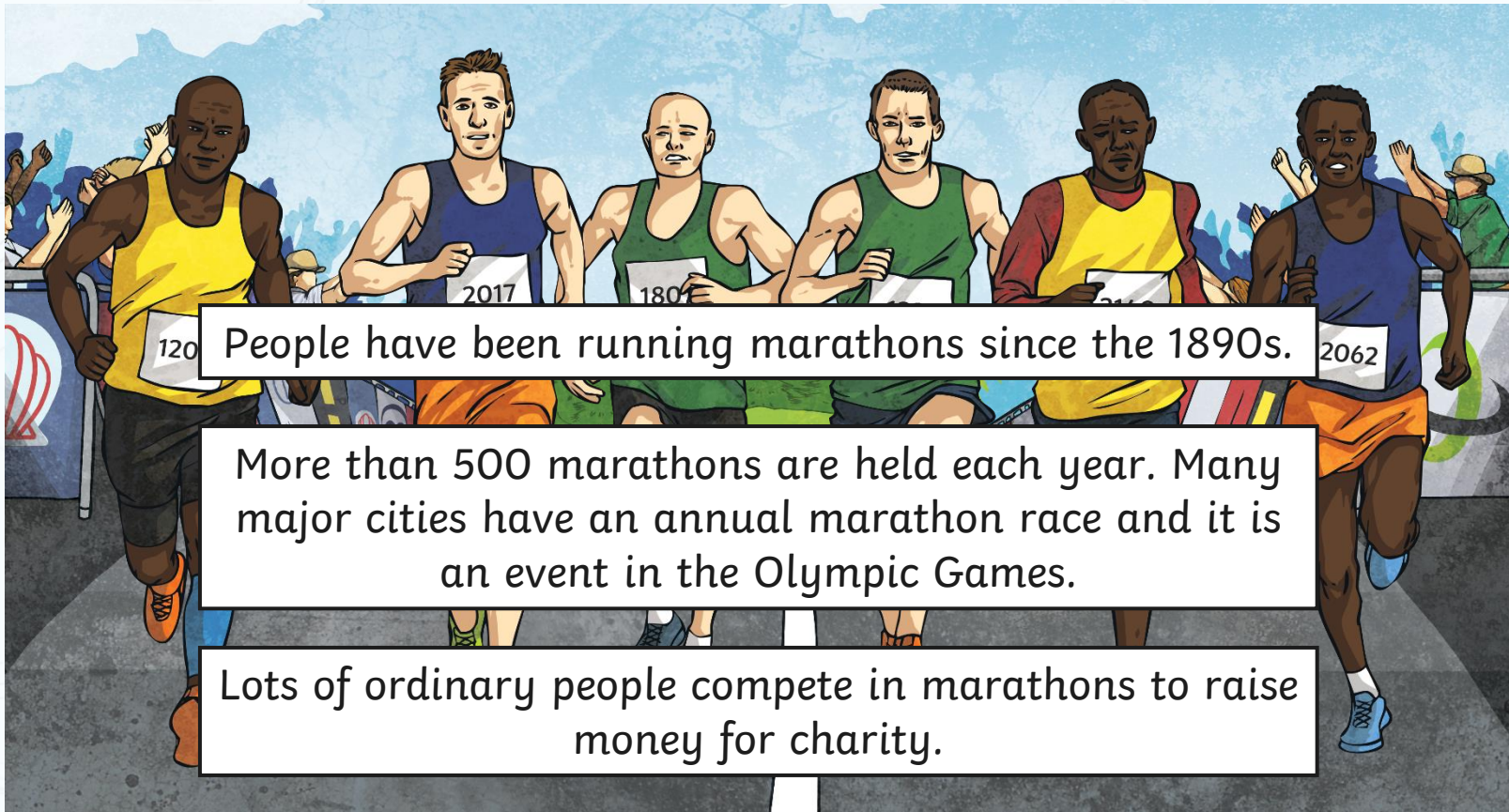
Activity	Time
Walk from home to school	10 minutes 15 seconds
Score 10 baskets	5 minutes 14 seconds
Write a story	23 minutes 10 seconds
Do maths homework	12 minutes 18 seconds
Clean bedroom	9 minutes 14 seconds

shortest ← → longest				
Score 10 baskets	Clean bedroom	Walk from home to school	Do maths homework	Write a story



The Marathon

The marathon is a race that covers just over 42 km.
This is approximately 26 miles.



People have been running marathons since the 1890s.

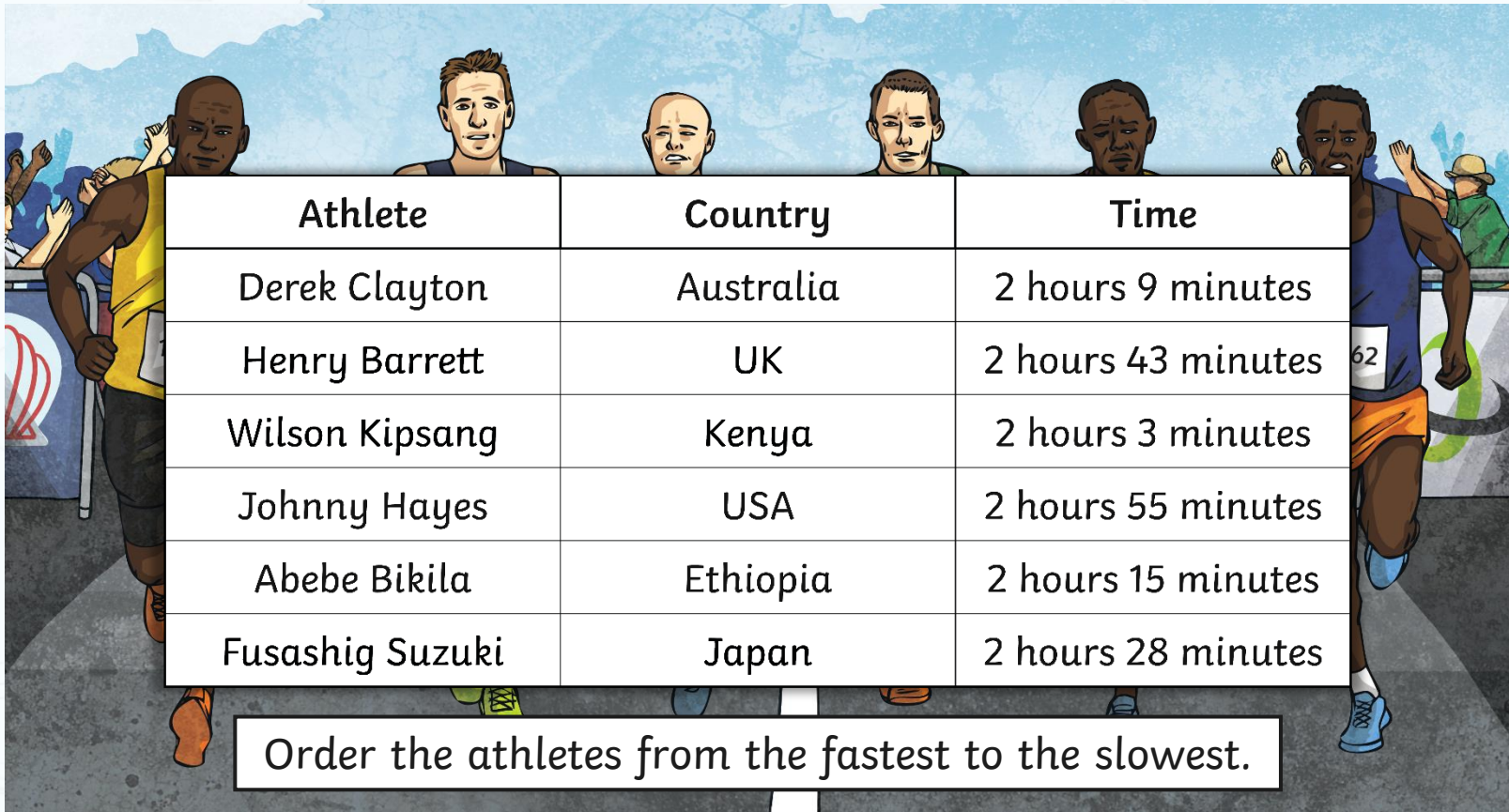
More than 500 marathons are held each year. Many major cities have an annual marathon race and it is an event in the Olympic Games.

Lots of ordinary people compete in marathons to raise money for charity.



The Marathon

Here is a chart to show some of the world record holders for the marathon (not in order). The times have been rounded to hours and minutes.



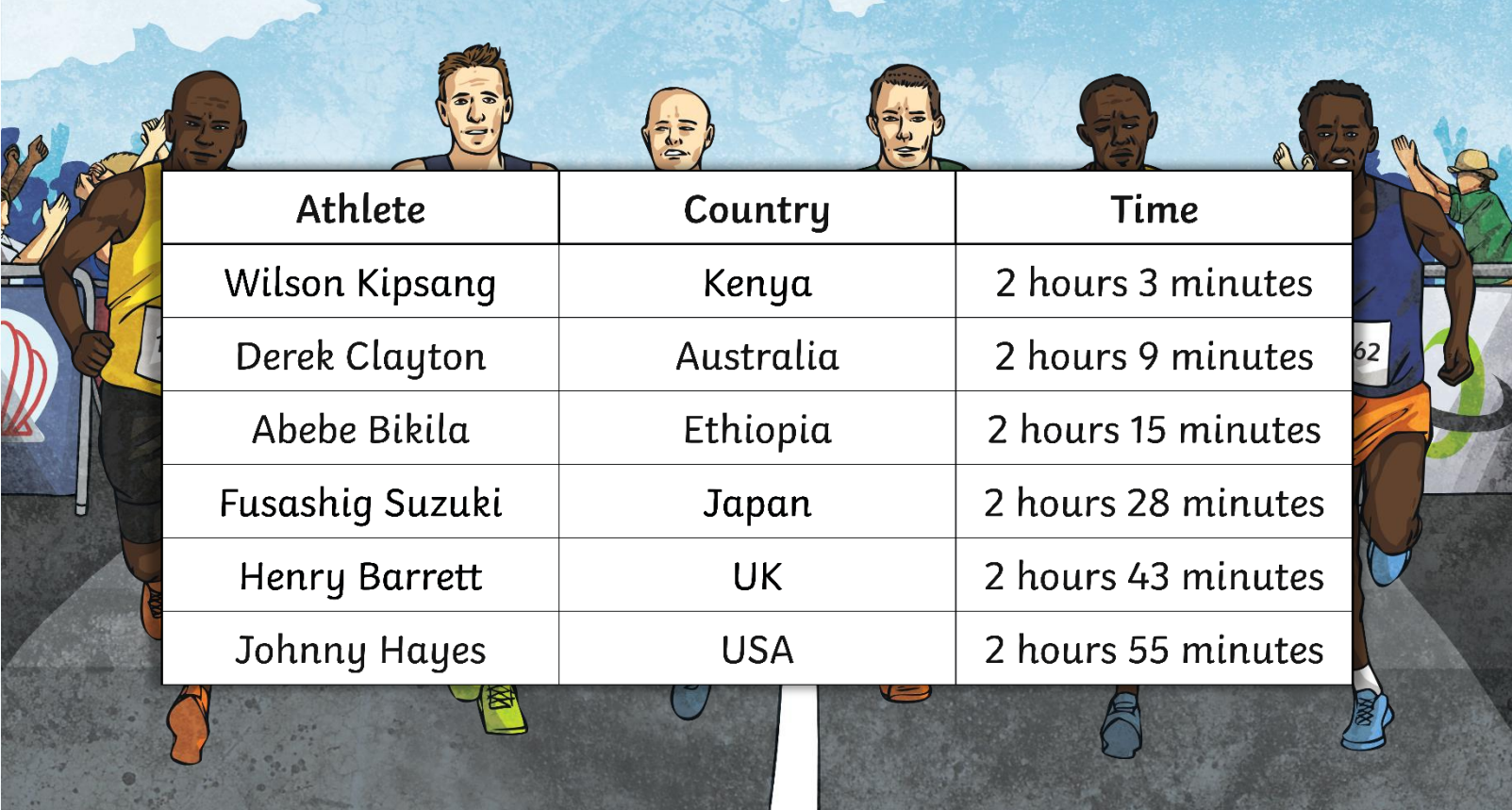
Athlete	Country	Time
Derek Clayton	Australia	2 hours 9 minutes
Henry Barrett	UK	2 hours 43 minutes
Wilson Kipsang	Kenya	2 hours 3 minutes
Johnny Hayes	USA	2 hours 55 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes

Order the athletes from the fastest to the slowest.



The Marathon

Here is the chart in order from fastest to slowest:



Athlete	Country	Time
Wilson Kipsang	Kenya	2 hours 3 minutes
Derek Clayton	Australia	2 hours 9 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes
Henry Barrett	UK	2 hours 43 minutes
Johnny Hayes	USA	2 hours 55 minutes



The Marathon

Work out the difference between the athletes' times:

Derek Clayton and Abebe Bikila:

6 minutes

Athlete	Country	Time
Derek Clayton	Australia	2 hours 9 minutes
Henry Barrett	UK	2 hours 43 minutes
Wilson Kipsang	Kenya	2 hours 3 minutes
Johnny Hayes	USA	2 hours 55 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes



The Marathon

Work out the difference between the athletes' times:

Henry Barrett and Fusashig Suzuki:

15 minutes

Athlete	Country	Time
Derek Clayton	Australia	2 hours 9 minutes
Henry Barrett	UK	2 hours 43 minutes
Wilson Kipsang	Kenya	2 hours 3 minutes
Johnny Hayes	USA	2 hours 55 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes



The Marathon

Work out the difference between the athletes' times:

Wilson Kipsang and Henry Barrett:

40 minutes

Athlete	Country	Time
Derek Clayton	Australia	2 hours 9 minutes
Henry Barrett	UK	2 hours 43 minutes
Wilson Kipsang	Kenya	2 hours 3 minutes
Johnny Hayes	USA	2 hours 55 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes



The Marathon

Work out the difference between the athletes' times:

Abebe Bikila and Henry Barrett:

28 minutes

Athlete	Country	Time
Derek Clayton	Australia	2 hours 9 minutes
Henry Barrett	UK	2 hours 43 minutes
Wilson Kipsang	Kenya	2 hours 3 minutes
Johnny Hayes	USA	2 hours 55 minutes
Abebe Bikila	Ethiopia	2 hours 15 minutes
Fusashig Suzuki	Japan	2 hours 28 minutes

Twinkl Airways



Here are the approximate flight times from London to major cities in the world, when flying with Twinkl Airways:

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Order the flight times from shortest flight to longest flight:

Twinkl Airways



Here is the chart in order from shortest to longest:

City	Flight time
Paris	1 hour 1 minute
Rome	2 hours 17 minutes
Madrid	2 hours 20 minutes
New York	6 hours 47 minutes
Lahore	7 hours 39 minutes
Mumbai	8 hours 45 minutes
Vancouver	9 hours 37 minutes
Johannesburg	11 hours 3 minutes

Twinkl Airways



Which city does it take the longest to fly to?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Johannesburg

Twinkl Airways



Which city does it take the least time to fly to?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes



Paris



Twinkl Airways

Which city does it take longer to fly to...
Rome or Madrid?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Madrid



Twinkl Airways

Which city does it take longer to fly to...
Mumbai or Vancouver?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Vancouver



Twinkl Airways

Which city does it take longer to fly to...
Johannesburg or New York?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Johannesburg



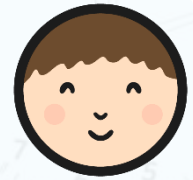
Twinkl Airways

Parveen wants to go on holiday.

She wants the flight to be less than 8 hours. Which cities could she visit?

City	Flight time
New York	6 hours 47 minutes
Vancouver	9 hours 37 minutes
Paris	1 hour 1 minute
Madrid	2 hours 20 minutes
Mumbai	8 hours 45 minutes
Rome	2 hours 17 minutes
Johannesburg	11 hours 3 minutes
Lahore	7 hours 39 minutes

Comparing Hours and Minutes



Use your terrific time skills to complete these activity sheets:

Paris to Co
Paris to Amst
Paris to Mo
Paris to Vi
Paris to Buc
Paris to Bru
Paris to At

2) Use either < or > to com

Paris to Brussels
Paris to Bucharest
Paris to Madrid
Paris to Calais

3) Calculate the difference

Paris to Brussels and Paris to Vienna
Paris to Bucharest and Paris to Athens
Paris to Madrid and Paris to Amsterdam
Paris to Calais and Paris to Bucharest

4) Two drivers are driving to Athens. Each driver How many more days Show your working out.

Comparing

I can

Here are the driving times from

Paris to Co
Paris to Amst
Paris to Mo
Paris to Vi
Paris to Buc
Paris to Bru
Paris to At

1) Rewrite the table, from

Paris to
Paris to
Paris to
Paris to
Paris to
Paris to
Paris to
Paris to

Comparing

I can

Here are the flight times from

Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to

2) Use either < or > to com

Birmingham to Barcelo
Birmingham to Athens
Birmingham to Cairo
Birmingham to Cairo

3) Calculate the difference

Birmingham to Athens a
Birmingham to Paris
Birmingham to Edinburgh
Birmingham to Barcelo
Birmingham to Beijing a
Birmingham to Cairo
Birmingham to Singapore
Birmingham to Barcelo

Comparing

I can

Here are the flight times from

Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to

1) Rewrite the table, from

Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to
Birmingham to

Comparing Times in Hours and Minutes

I can compare times in hours and minutes.

Here are some of the times for the Women's Marathon World Records:

Name	Country	Time
Maureen Wilton	Canada	3 hours 15 minutes
Grete Waitz	Norway	2 hours 32 minutes
Paula Radcliffe	UK	2 hours 15 minutes
Violet Piercy	UK	3 hours 40 minutes
Tegla Loroupe	Kenya	2 hours 21 minutes
Caroline Walker	USA	3 hours 3 minutes

1) Rewrite the table, ordering from the slowest time to the fastest time. Put the slowest time at the top.

Name	Country	Time
Maureen Wilton and Violet P		
Tegla Laroupe and Grete W		
Caroline Walker and Maureen		
Tegla Laroupe and Paula. Ra		

Match the Cost



Twinkl Airway's flight costs are linked to the length of flights – the longer the flying time, the more expensive the cost.

On the left are the costs of a flight, on the right the flight times. Match the cost with the flight. Click the prices to reveal the answers.

Cost	Flight
£121	Mumbai 8 hours 45 minutes
£216	New York 6 hours 47 minutes
£38	Rome 2 hours 17 minutes
£256	Vancouver 9 hour 37 minutes

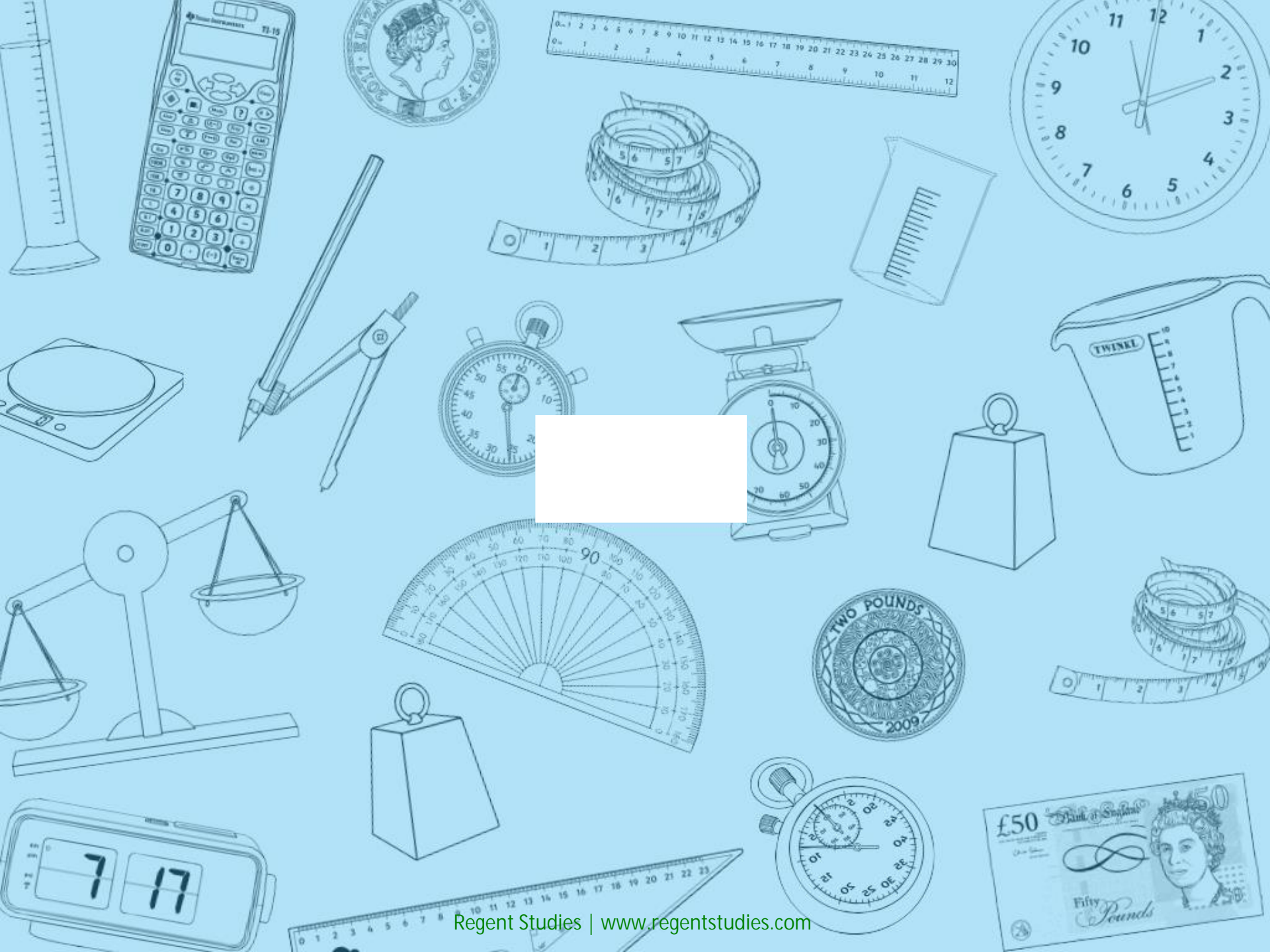
Aim



- I can compare times in hours and minutes.

Success Criteria

- I can order events which are timed in hours and minutes.
- I can calculate the difference between two timed events.





Comparing Times in Hours and Minutes

I can compare times in hours and minutes.



Here are the driving times from Paris to different places around Europe:

Paris to Calais	2 hours 53 minutes
Paris to Amsterdam	5 hours 48 minutes
Paris to Madrid	11 hours 56 minutes
Paris to Vienna	11 hours 16 minutes
Paris to Bucharest	22 hours 13 minutes
Paris to Brussels	3 hours 21 minutes
Paris to Athens	28 hours 14 minutes

1) Rewrite the table, from shortest driving time to the longest time:

Paris to	
Paris to	
Paris to	
Paris to	
Paris to	
Paris to	
Paris to	



Paris to Calais	2 hours 53 minutes
Paris to Amsterdam	5 hours 48 minutes
Paris to Madrid	11 hours 56 minutes
Paris to Vienna	11 hours 16 minutes
Paris to Bucharest	22 hours 13 minutes
Paris to Brussels	3 hours 21 minutes
Paris to Athens	28 hours 14 minutes

2) Use either $<$ or $>$ to compare the times of these journeys:

Paris to Brussels		Paris to Athens
Paris to Bucharest		Paris to Vienna
Paris to Madrid		Paris to Amsterdam
Paris to Calais		Paris to Bucharest

3) Calculate the difference between driving times:

Paris to Brussels and Paris to Vienna	
Paris to Bucharest and Paris to Athens	
Paris to Madrid and Paris to Amsterdam	
Paris to Calais and Paris to Bucharest	

4) Two drivers are driving from Paris. Driver A is driving to Vienna and Driver B is driving to Athens. Each driver plans to drive for 5 hours a day, then stay in a hotel. How many more days does Driver B take to complete his journey than Driver A? Show your working out.



Comparing Times in Hours and Minutes **Answers**

Question	Answer		
1.	Rewrite the table, from shortest driving time to the longest time:		
	Paris to Calais	2 hours 53 minutes	
	Paris to Brussels	3 hours 21 minutes	
	Paris to Amsterdam	5 hours 48 minutes	
	Paris to Vienna	11 hours 16 minutes	
	Paris to Madrid	11 hours 56 minutes	
	Paris to Bucharest	22 hours 13 minutes	
	Paris to Athens	28 hours 14 minutes	
2.	Use either < or > to compare the times of these journeys:		
	Paris to Brussels	<	Paris to Athens
	Paris to Bucharest	>	Paris to Vienna
	Paris to Madrid	>	Paris to Amsterdam
	Paris to Calais	<	Paris to Bucharest
3.	Calculate the difference between driving times:		
	Paris to Brussels and Paris to Vienna	7 hours 55 minutes	
	Paris to Bucharest and Paris to Athens	6 hours 1 minute	
	Paris to Madrid and Paris to Amsterdam	6 hours 8 minutes	
	Paris to Calais and Paris to Bucharest	19 hours 20 minutes	



Comparing Times in Hours and Minutes **Answers**

Question	Answer
4.	Two drivers are driving from Paris. Driver A is driving to Vienna and Driver B is driving to Athens. Each driver plans to drive for 5 hours a day, then stay in a hotel. How many more days does Driver B take to complete his journey than Driver A? Show your working out.
	<i>Driver B takes 3 days more to complete his journey.</i>



Comparing Times in Hours and Minutes

I can compare times in hours and minutes.



Here are some of the times for the Women's Marathon World Records:

Name	Country	Time
Maureen Wilton	Canada	3 hours 15 minutes
Grete Waitz	Norway	2 hours 32 minutes
Paula Radcliffe	UK	2 hours 15 minutes
Violet Piercy	UK	3 hours 40 minutes
Tegla Loroupe	Kenya	2 hours 21 minutes
Caroline Walker	USA	3 hours 3 minutes

1) Rewrite the table, ordering from the slowest time to the fastest time. Put the slowest time at the top.

Name	Country	Time



Name	Country	Time
Maureen Wilton	Canada	3 hours 15 minutes
Grete Waitz	Norway	2 hours 32 minutes
Paula Radcliffe	UK	2 hours 15 minutes
Violet Piercy	UK	3 hours 40 minutes
Tegla Loroupe	Kenya	2 hours 21 minutes
Caroline Walker	USA	3 hours 3 minutes

2) Use either < or > to compare the times of these athletes:

Caroline Walker		Grete Waitz
Paula Radcliffe		Tegla Loroupe
Violet Piercy		Maureen Wilton
Grete Waitz		Paula Radcliffe

3) Calculate the difference between the athlete's times:

Maureen Wilton and Violet Piercy	minutes
Tegla Laroupe and Grete Waitz	minutes
Caroline Walker and Maureen Wilton	minutes
Tegla Laroupe and Paula Radcliffe	minutes



Comparing Times in Hours and Minutes **Answers**

Question	Answer		
1.	Rewrite the table, ordering from the slowest time to the fastest time. Put the slowest time at the top.		
	<i>Violet Piercy</i>	<i>UK</i>	<i>3 hours 40 minutes</i>
	<i>Maureen Wilton</i>	<i>Canada</i>	<i>3 hours 15 minutes</i>
	<i>Caroline Walker</i>	<i>USA</i>	<i>3 hours 3 minutes</i>
	<i>Grete Waitz</i>	<i>Norway</i>	<i>2 hours 32 minutes</i>
	<i>Tegla Loroupe</i>	<i>Kenya</i>	<i>2 hours 21 minutes</i>
	<i>Paula Radcliffe</i>	<i>UK</i>	<i>2 hours 15 minutes</i>
2.	Use either < or > to compare the times of the athletes:		
	Caroline Walker	>	Grete Waitz
	Paula Radcliffe	<	Tegla Loroupe
	Violet Piercy	>	Maureen Wilton
	Grete Waitz	>	Paula Radcliffe
3.	Calculate the difference between the athlete's times:		
	Maureen Wilton and Violet Piercy	25 minutes	
	Tegla Laroupe and Grete Waitz	11 minutes	
	Caroline Walker and Maureen Wilton	12 minutes	
	Tegla Laroupe and Paula Radcliffe	6 minutes	



Comparing Times in Hours and Minutes

I can compare times in hours and minutes.



Here are the flight times from Birmingham to different cities around the world:

Birmingham to Edinburgh	1 hour 11 minutes
Birmingham to Cairo	5 hours 41 minutes
Birmingham to Singapore	13 hours 19 minutes
Birmingham to Paris	1 hour 27 minutes
Birmingham to Barcelona	2 hours 20 minutes
Birmingham to Beijing	9 hours 55 minutes
Birmingham to Athens	3 hours 56 minutes

1) Rewrite the table, from shortest flight time to longest time:

Birmingham to	
Birmingham to	
Birmingham to	
Birmingham to	
Birmingham to	
Birmingham to	
Birmingham to	



Birmingham to Edinburgh	1 hour 11 minutes
Birmingham to Cairo	5 hours 41 minutes
Birmingham to Singapore	13 hours 19 minutes
Birmingham to Paris	1 hour 27 minutes
Birmingham to Barcelona	2 hours 20 minutes
Birmingham to Beijing	9 hours 55 minutes
Birmingham to Athens	3 hours 56 minutes

2) Use either $<$ or $>$ to compare the times of these journeys:

Birmingham to Barcelona		Birmingham to Paris
Birmingham to Athens		Birmingham to Beijing
Birmingham to Cairo		Birmingham to Singapore
Birmingham to Cairo		Birmingham to Athens

3) Calculate the difference between flight times:

Birmingham to Athens and Birmingham to Paris	
Birmingham to Edinburgh and Birmingham to Barcelona	
Birmingham to Beijing and Birmingham to Cairo	
Birmingham to Singapore and Birmingham to Barcelona	



Comparing Times in Hours and Minutes **Answers**

Question	Answer		
1.	Rewrite the table, from shortest flight time to longest time:		
	Birmingham to Edinburgh	1 hour 11 minutes	
	Birmingham to Paris	1 hour 27 minutes	
	Birmingham to Barcelona	2 hours 20 minutes	
	Birmingham to Athens	3 hours 56 minutes	
	Birmingham to Cairo	5 hours 41 minutes	
	Birmingham to Beijing	9 hours 55 minutes	
	Birmingham to Singapore	13 hours 19 minutes	
2.	Rewrite the table, from shortest flight time to longest time:		
	Birmingham to Barcelona	>	Birmingham to Paris
	Birmingham to Athens	<	Birmingham to Beijing
	Birmingham to Cairo	<	Birmingham to Singapore
	Birmingham to Cairo	>	Birmingham to Athens
3.	Calculate the difference between flight times:		
	Birmingham to Athens and Birmingham to Paris	2 hours 29 minutes	
	Birmingham to Edinburgh and Birmingham to Barcelona	1 hour 9 minutes	
	Birmingham to Beijing and Birmingham to Cairo	4 hours 14 minutes	
	Birmingham to Singapore and Birmingham to Barcelona	10 hours 59 minutes	

Measurement | Hours and Minutes

I can compare times in hours and minutes.		
I can order events which are timed in hours and minutes.		
I can calculate the difference between two timed events.		

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I can order events which are timed in hours and minutes.		
I can calculate the difference between two timed events.		