CoEA Module 2    Case Study 2

Time

The resources for this Case Study consist of

Teacher Notes
Introduction – Quiz
OHP1
OHP2
Worksheet WS1
OHP3
Worksheets WS2.1-2.2
Worksheet WS3
Resource Sheet 1
Homework Sheet HW1
Worksheet WS4
Test 1

What is Time?
Clock Face
Clock Face (hours)
Clock Faces (1)
Clock Face (mins, secs)
Clock Faces (2)
Arithmetic Using Time
Peter’s Day

Different Measurements
Time
Case Study 2

**Time**

### Teacher Notes

1. **(a)** Use the Introductory Sheet as a fun quiz to investigate the various meanings and uses of the word 'time'.
   
   **(b)** Use OHP1, of a blank clockface. Fill in the numbers for the hours. (See OHP2)
   
   **(c)** Students draw on the clock hands, showing whole hours (time o'clock).
   
   **(d)** Discuss 'quarter past', 'quarter to' and 'half past'. Students draw hands on the clock to show different times.
   
   **(e)** Worksheet 1 (a similar sheet could be made for homework).

2. **(a)** Using OHP1, blank clockface, write in the minutes (5, 10, etc.). (See OHP3)
   
   **(b)** Students draw on the clock hands, showing given times (twenty past, five to, etc.).
   
   **(c)** Worksheet 2. Check understanding before moving on.
   
   **(d)** Discuss 'seconds'. Have a clock showing seconds – 5, 10, etc.
   
   **(e)** Simple additions with seconds. Use some that go past the minute (e.g. '30 seconds plus 40 seconds', giving answer as minute and seconds).
   
   **(g)** Worksheet 3 and Homework Sheet 1 (using Resource Sheet 1).

3. **(a)** Discuss various units of time. Ask questions similar to those on Worksheet 4. Do the first half of Worksheet 4.
   
   **(b)** Discuss various units of length. Then ask questions similar to those on Worksheet 4. Do the second half of Worksheet 4.
   
   **(c)** The practical element on measuring can be done at this point.
Case Study 2, Introduction

What is Time?

Quiz

1. What is a time traveller?
2. How do you kill time?
3. Where would you serve time?
4. What is a pastime?
5. What is a time bomb?
6. What is a two timer?
7. How do you take time off?
8. What is meant by overtime?
9. What is meant by double time?
10. What is meant by part-time?
11. How do you make time?
12. Who beats time?
13. Where would you see "Once upon a time"?
14. What is half-time?
15. What is time out?
16. What is a time zone?
17. What does time sharing mean?
18. What is a time switch?
Case Study 2, OHP1

Clock Face
Case Study 2, OHP2

Clock Face (hours)
Case Study 2, WS1

Clock Faces (1)

Draw in the hands on each clock to show the correct time.

Three o'clock

Half past seven

Quarter past five

Quarter to seven

Seven o'clock

Half past twelve

Quarter past eight

Quarter to eight

Eleven o'clock

Half past three

Quarter past one

Quarter to three
Case Study 2, WS2.1

Clock Faces (2)

Draw in the hands on each clock to show the correct time.

Ten to three

Five past six

Twenty five to seven

Twenty five to three

Five to eleven

Twenty past midnight

Twenty five to three

Twenty five past nine

Five past six

Ten to one

Ten past seven

Twenty to five

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Case Study 2, WS2.2

Clock Faces (2)

Under each clock write the time shown.

1. [Diagram with arrows pointing to 9 and 3 on the clock face.]
2. [Diagram with arrows pointing to 10 and 2 on the clock face.]
3. [Diagram with arrows pointing to 11 and 1 on the clock face.]
4. [Diagram with arrows pointing to 8 and 4 on the clock face.]
5. [Diagram with arrows pointing to 7 and 5 on the clock face.]
6. [Diagram with arrows pointing to 6 and 6 on the clock face.]
7. [Diagram with arrows pointing to 12 and 1 on the clock face.]
8. [Diagram with arrows pointing to 9 and 3 on the clock face.]
9. [Diagram with arrows pointing to 10 and 2 on the clock face.]
10. [Diagram with arrows pointing to 11 and 1 on the clock face.]
11. [Diagram with arrows pointing to 8 and 4 on the clock face.]
12. [Diagram with arrows pointing to 7 and 5 on the clock face.]
13. [Diagram with arrows pointing to 6 and 6 on the clock face.]
14. [Diagram with arrows pointing to 12 and 1 on the clock face.]

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Case Study 2, HW1

Peter's Day

Use Resource Sheet 1, 'Peter's Day', to answer these questions.

1. At what time is Peter riding to school? ...................................................
2. At what time is Peter watching television? ...................................................
3. When is Peter eating his breakfast? ...................................................
4. At what time is Peter cleaning his teeth? ...................................................
5. At what time is Peter eating his school dinner? ...................................................
6. At what time is Peter sleeping? ...................................................
7. At what time is Peter in a mathematics lesson? ...................................................
8. When is Peter with his friends? ...................................................
9. What is Peter doing at 7.45 in the evening? ...................................................
10. What is Peter doing at 8.30 in the morning? ...................................................
11. How long is it between Peter brushing his teeth and eating his breakfast? ...................................................
12. How long is it between Peter eating his dinner and having a mathematics lesson? ...................................................
13. How much time passes between Peter eating his breakfast and cycling to school? ...................................................
14. How much time passes between Peter eating his breakfast and having his dinner? ...................................................
15. How many hours pass between Peter's mathematics lesson and the time he falls asleep? ...................................................
Case Study 2, WS3

1. Work out the following:
   (a) 10 mins + 15 mins = ....................
   (b) 5 mins + 15 mins = ........................
   (c) 35 mins + 20 mins = ....................
   (d) 30 mins + 40 mins = ........................
   (e) 22 mins + 15 mins = ....................
   (f) 8 mins + 20 mins = ........................
   (g) 25 mins + 45 mins = ....................
   (h) 37 mins + 42 mins = ........................
   (i) 26 mins + 57 mins = ....................
   (j) 12 mins + 51 mins = ........................
   (k) 42 mins + 53 mins = ....................
   (l) 59 mins + 47 mins = ........................

2. Work out the following:
   (a) 15 mins + ...................... = 45 mins
   (b) ...................... + 40 mins = 55 mins
   (c) 40 mins + ............... = 1 hr 20 mins
   (d) ............... + 35 mins = 1 hr 40 mins
   (e) 29 mins + ...................... = 46 mins
   (f) ...................... + 13 mins = 47 mins
   (g) 8 mins + ...................... = 53 mins
   (h) ............... + 51 mins = 1 hr 48 mins
   (i) 27 mins + ............... = 1 hr 39 mins
   (j) ............... + 34 mins = 1 hr 5 mins
   (k) 38 mins + ............... = 1 hr 15 mins
   (l) 12 mins + ............... = 1 hr 32 mins

3. Work out the following:
   (a) 20 secs + 30 secs = ....................
   (b) 15 secs + 25 secs = ........................
   (c) 10 secs + 45 secs = ....................
   (d) 20 secs + 20 secs = ........................
   (e) 32 secs + 17 secs = ....................
   (f) 36 secs + 41 secs = ........................
   (g) 25 secs + 45 secs = ....................
   (h) 42 secs + 29 secs = ........................
   (i) 36 secs + 37 secs = ....................
   (j) 17 secs + 52 secs = ........................
   (k) 46 secs + 55 secs = ....................
   (l) 58 secs + 49 secs = ........................
Case Study 2, WS4  

Different Measurements

What basic unit of time would you use to measure each of the following?

You can choose from

seconds, minutes, hours and days

1.  A 100 metre running race
2.  A 1500 metre running race
3.  Boiling an egg
4.  A summer holiday to America
5.  A marathon race
6.  The length of time someone works during a week
7.  A telephone conversation

What basic unit of length would you use to measure each of the following?

You can choose from

millimetres, centimetres, metres and kilometres

8.  The length of a table top
9.  A piece of hair
10.  The distance from London to Norwich
11.  The length of a drawing pin
12.  The width of a football pitch
13.  The Pennine Way – a walk through the Derbyshire hills!
14.  A pencil
Case Study 2, Test 1

Time

1. Draw the hands on the clocks to show the given time.

Half past eight

Twenty past two

Ten to five

2. Work out the following:

(a) 15 mins + 25 mins = .......................  (b) 23 mins + 18 mins = ....................... 
(c) 23 mins + 18 mins = .......................  (d) 53 mins + 28 mins = ....................... 
(e) ....................... + 37 mins = 54 mins  (f) 47 mins + ................ = 1 hr 29 mins  
(g) 46 secs + 28 secs = .......................  (h) ............... + 45 secs = 1 min 23 secs

3. Which of these basic units of time

seconds, minutes, hours, days

would you use to measure each of the following?

(a) 100 metres swimming race

(b) the time a football match lasts

(c) the time of a train journey from London to Aberdeen.

4. Which of these basic units of length

millimetres, centimetres, metres, kilometres

would you use to measure each of the following?

(a) the length of a fingernail

(b) the length of a school corridor

(c) the distance from Lands End in Cornwall to John O'Groats in Scotland.