

# Y3/4 Place value, decimals and fractions Unit 1 (34412)

## Additional teacher instructions for practice sheets

These notes indicate which practice sheets are most appropriate for which groups.

### Day 1 Y3 Positive and negative numbers Sheet 1

Working towards ARE / Working at ARE / Greater Depth

### Day 1 Y4 Positive and negative numbers Sheet 2

Working towards ARE / Working at ARE / Greater Depth

Working towards ARE could refer to a -10 to 10 number line to help with Q2-5.

### Day 2 Y3 Temperature Sheet 1

Working towards ARE / Working at ARE / Greater Depth

### Day 2 Y4 Temperature Sheet 2

Working towards ARE

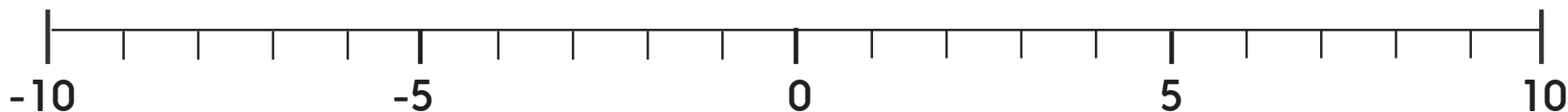
### Day 2 Y4 Temperature Sheet 3

Working at ARE / Greater Depth

# Positive and negative numbers

## Sheet 1

1. Mark ALL the numbers on the line.



2. Write the number that goes between the numbers.

$-2 \quad \boxed{\phantom{00}} \quad 0$

$-10 \quad \boxed{\phantom{00}} \quad -8$

$-1 \quad \boxed{\phantom{00}} \quad 1$

$-6 \quad \boxed{\phantom{00}} \quad -4$

4. Write each group of numbers in order, smallest first.

-2, 2, 0

\_\_\_

4, -1, 6

\_\_\_

-10, 3, -5

\_\_\_

4, -3, -1

\_\_\_

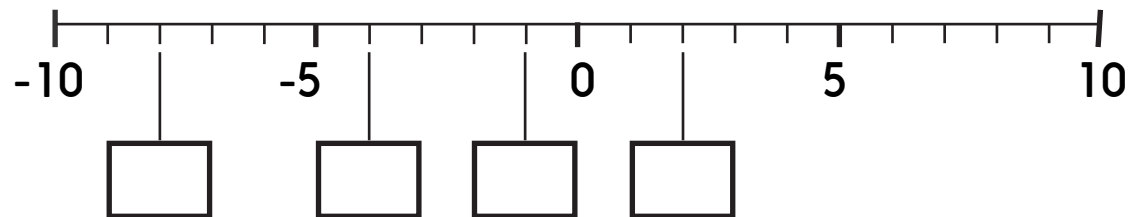
### Challenge

- Write three numbers between -10 and -3.
- Amy drops a ball from an upstairs window, 4 metres above the ground. The ball falls straight to the bottom of a hole, falling  $7\frac{1}{2}$  metres in total! How deep is the hole? Complete this number sentence:  $4 - 7\frac{1}{2} = \boxed{\phantom{00}}$

# Positive and negative numbers

## Sheet 2

1. Write the missing numbers in the boxes.



2. Write the number that goes between the numbers.

-2  0

-10  -8

-1  1

-6  -4

3. Write  $<$  or  $>$  between each pair of numbers.

-4 4

3 -1

-5 -2

-10 -6

3 -3

-8 2

0 -7

4. Write each group of numbers in order, smallest first.

-2, 2, 0

4, -1, 6

-10, 3, -5

4, -3, -1

-5, -9, -2

3, 0, -6

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

### Challenge

The year this year is \_\_\_\_\_ .  
What year was it 2050 years ago?

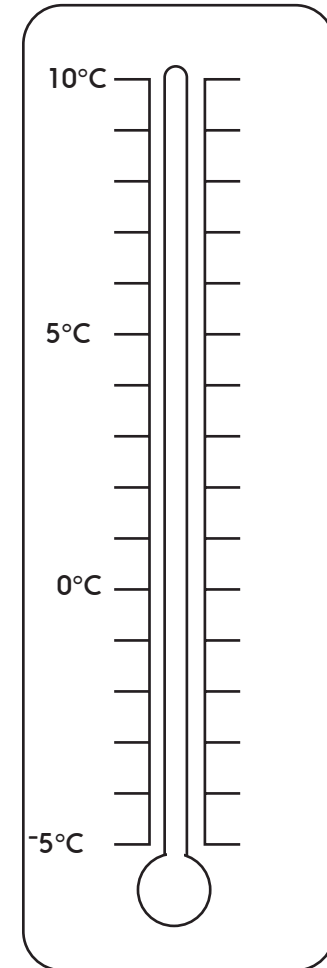
5. Write three numbers between -10 and -3.

# Temperature

## Sheet 1

Mark the following temperatures on the thermometer:  $9^{\circ}\text{C}$   
 $-1^{\circ}\text{C}$   
 $4^{\circ}\text{C}$   
 $-3^{\circ}\text{C}$   
 $2^{\circ}\text{C}$

Day	Maximum day temperature	Minimum night temperature
Monday	$5^{\circ}\text{C}$	$-1^{\circ}\text{C}$
Tuesday	$7^{\circ}\text{C}$	$-2^{\circ}\text{C}$
Wednesday	$4^{\circ}\text{C}$	$-3^{\circ}\text{C}$
Thursday	$2^{\circ}\text{C}$	$-5^{\circ}\text{C}$
Friday	$1^{\circ}\text{C}$	$-4^{\circ}\text{C}$



Was the night colder on Monday or Tuesday?

Which was the coldest night?

Which was the mildest night?

How much colder was it during the day on Thursday than Monday?

### Challenge

Which day had a temperature drop of  $5^{\circ}\text{C}$ ?

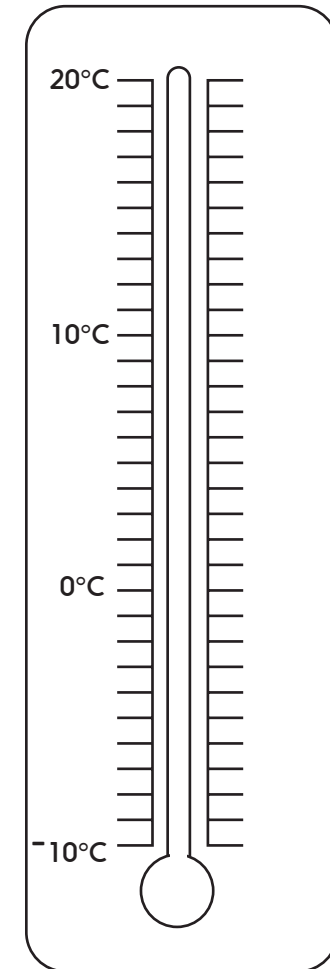
# Temperature

## Sheet 2

Mark the following temperatures on the thermometer:

15°C    -5°C  
-1°C    -7°C  
-9°C    8°C

Day	Maximum day temperature	Minimum night temperature
Monday	5°C	-1°C
Tuesday	7°C	-2°C
Wednesday	4°C	-3°C
Thursday	2°C	-5°C
Friday	1°C	-4°C



Was the night colder on Monday or Tuesday?

Which was the coldest night?

Which was the mildest night?

How much colder was it during the day on Thursday than Monday?

### Challenge

Which days had a temperature drop of 7°C?

# Temperature

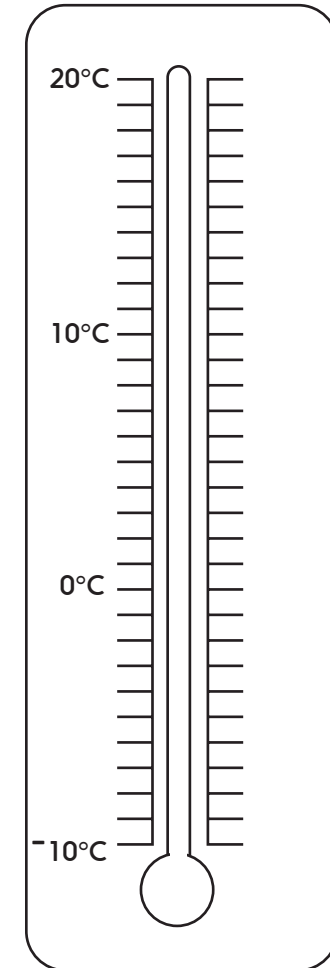
## Sheet 3

Mark the following temperatures on the thermometer:

15°C	-8°C
-1°C	-3°C
-9°C	4°C
-5°C	

Calculate the temperature drop for each day.

Day	Maximum day temperature	Minimum night temperature	Temperature change
Monday	5°C	-1°C	
Tuesday	7°C	-2°C	
Wednesday	4°C	-3°C	
Thursday	2°C	-5°C	
Friday	1°C	-4°C	



### Challenge

On Saturday, there was a temperature difference of 13°C between day and night!  
What might the maximum and minimum measurements have been?

# Place value, decimals and fractions

## Answers

### Day 1 Y3 Positive and negative numbers Sheet 1



2.      -2 -1 0                      -10 -9 -8                      -1 0 1                      -6 -5 -4

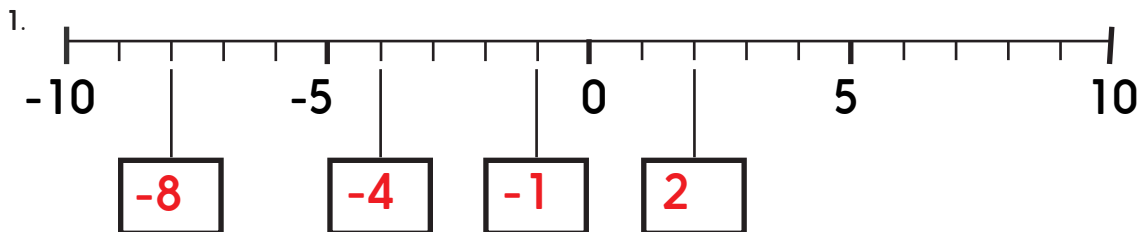
3. Write each group of numbers in order, smallest first.

-2, 2, 0	-2 0 2
4, -1, 6	-1 4 6
-10, 3, -5	-10 -5 3
4, -3, -1	-3 -1 4

### Challenge

- Write three numbers between -10 and -3.  
Accept three of the following: -9, -8, -7, -6, -5 or -4
- The hole is  $3\frac{1}{2}$  metres deep.  $4 - 7\frac{1}{2} = -3\frac{1}{2}$

### Day 1 Y4 Positive and negative numbers Sheet 2



2.      -2 -1 0                      -10 -9 -8                      -1 0 1                      -6 -5 -4

3.      -4 < 4    3 > -1    -5 < -2    -10 < -6    3 > -3    -8 < 2    0 > -7

4. Write each group of numbers in order, smallest first.

-2, 2, 0	-2 0 2
4, -1, 6	-1 4 6
-10, 3, -5	-10 -5 3
4, -3, -1	-3 -1 4
-5, -9, -2	-9 -5 -2
3, 0, -6	-6 0 3

# Place value, decimals and fractions

## Answers

### Day 1 Y4 Positive and negative numbers Sheet 2 continued

5. Write three numbers between -10 and -3.

Accept three of the following:

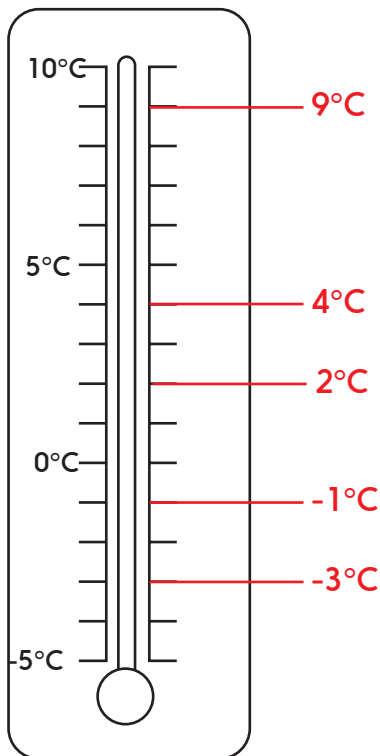
-9, -8, -7, -6, -5 or -4

#### Challenge

Do children give the year in terms of a negative number, e.g. -31 for 2019?

Of course, we count back past the 'year zero' in positive numbers 'BCE' (Before Common Era), so 2050 years before 2019 was 31 BCE.

### Day 2 Y3 Temperature Sheet 1



Was the night colder on Monday or Tuesday?

Tuesday

Which was the coldest night?

Thursday

Which was the mildest night?

Monday

How much colder during the day on Thursday was it than Monday?

3 degrees colder

#### Challenge

There was a drop of 5°C in temperature on Friday.

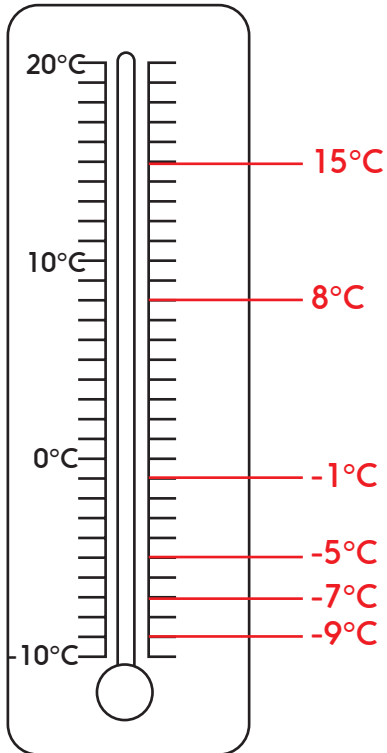
Watch out for children who answer Monday or Thursday having seen the number 5 in the information.



# Place value, decimals and fractions

## Answers

### Day 2 Y4 Temperature Sheet 2

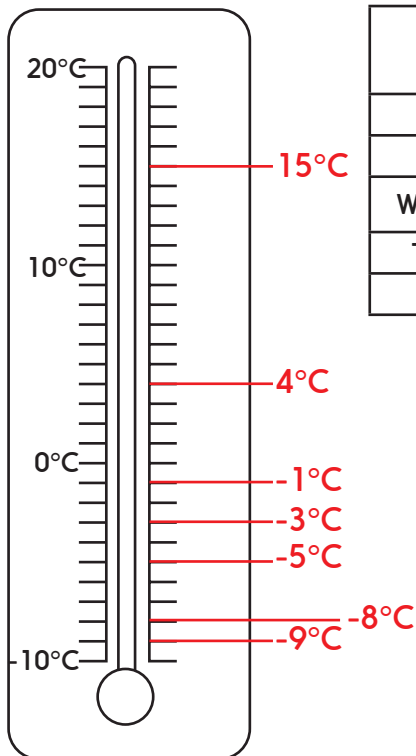


Was the night colder on Monday or Tuesday? **Tuesday**  
 Which was the coldest night? **Thursday**  
 Which was the mildest night? **Monday**  
 How much colder during the day on Thursday was it than Monday? **3 degrees colder**

#### Challenge

There was a drop of 7°C in temperature on Wednesday and Thursday.  
 Watch out for children who answer Tuesday having seen the number 7 in the information.

### Day 2 Temperature Sheet 3



Day	Maximum day temperature	Minimum night temperature	Temperature drop
Monday	5°C	-1°C	-6°C
Tuesday	7°C	-2°C	-9°C
Wednesday	4°C	-3°C	-7°C
Thursday	2°C	-5°C	-7°C
Friday	1°C	-4°C	-5°C

#### Challenge

Accept any pair of temperatures with a difference of 13°C, e.g.  
 20°C and 7°C  
 13°C and 0°C  
 0°C and -13°C