

Comparing positive and negative numbers

CURRICULUM ALIGNMENT

NUM.PVT.4

investigate how decimals and percentages (and fractions) can be compared, ordered and expressed in related terms.

INTERACTIVES **Number Line** · challenge, display, explore

WHAT THIS LESSON TEACHES

On a number line, whichever number sits further to the left is the smaller one. This rule decides every comparison for positive and negative numbers.

→ -7 sits further left than -3, so -7 is smaller than -3.

→ +2 is bigger than -5 because +2 is to the right of zero and -5 is to the left.

MODEL THIS ON THE BOARD

COMPARING TWO WINTER MORNINGS

- 1 Place -5 and -2 on the number line.
- 2 See that -5 sits further left than -2.
- 3 So -5 is smaller: write $-5 < -2$.
- 4 The town at -5°C is colder.

ANSWER KEY

c) -6

Q1: -9°C

Q2: -6°C

Q3: -4°C

Q4: +1

Q5: -8°C

Q6: +2

a) **Always** : Every negative sits left of zero and every positive sits right, so the negative is always smaller.

b) **Never** : -15 is further below zero, so it is smaller than -12.

c) **Always** : This is the rule that decides every comparison of positive and negative numbers.

d) **Sometimes** : True for -3 and -3; false for -3 and -5.

EXTENSION SHEET · STRETCH ANSWERS

S1: $-1 < 7 < 8 < 14$

S2: $-10 < -4 < 4 < 6$