At home materials

Pack 5: Positive and negative numbers

Session A) Negative numbers in context
Session B) Extending the number line
Session C) Comparing numbers
Session D) Greater than and less than
Pack 5 Session A

**Talk Task:** Positive and negative numbers

**Below ground**

- 2nd Floor
- 1st Floor
- 0th Floor

**Temperature**

Debt

- I have £20 in my bank account.
- I spend £30.
- My bank statement says −£10

Sea level

The lowest exposed land on Earth is at the Dead Sea shore, at −413 metres
Pack 5 Session A

**Activity:** Positive and negative numbers

1) Describe the position of the robot after each movement using positive and negative symbols.

   From **START**, move two steps east.  \( +2 \)
   From **START**, move two steps west  \( -2 \)

   a) From **START**, move 5 steps east.
   b) From **START**, move 3 steps west
   c) From **START**, move 2 steps east and then 4 steps east
   d) From **START**, move 2 steps west and then 3 steps west
   e) From **START**, move 3 steps east then 4 steps west
   f) From **START**, move 1 steps west then 4 steps east

2) Sketch a picture of a building that has this panel in the lift
Talk Task: Extending the number line

Arctic $-18^\circ C$

Rainforest $21^\circ C$

Desert $35^\circ C$
Pack 5 Session B

**Activity:** Extending the number line

1) Use the images to match the information.

2) Mark the position of each value on the number line.
   a) $-2$
   b) 3.5
   c) +1
   d) $-4.5$
   e) $-8$
Pack 5 Session C
**Talk Task:** Comparing numbers

I am in a building on floor $-4$. Do I need to go up or down the stairs to get to $-2$?

The temperature was $-3 \, ^\circ C$. It got colder.

A submarine is at a depth of $-80$ m. It travels towards the surface and then goes deeper.
Pack 5 Session C

Activity: Comparing numbers

1) Complete the sentences
   
   $-3 \, ^\circ C$ is warmer than ___ \(^\circ C\)
   
   $-3 \, ^\circ C$ is colder than ___ \(^\circ C\)
   
   ___ \(^\circ C\) is warmer than $-4 \, ^\circ C$
   
   ___ \(^\circ C\) is colder than $-4 \, ^\circ C$

2) Delete a word to make each sentence correct
   
   $-3 \, ^\circ C$ is warmer / colder than $-4 \, ^\circ C$
   
   $-3 \, ^\circ C$ is warmer / colder than $-1 \, ^\circ C$
   
   $-3 \, ^\circ C$ is higher / lower than $-4 \, ^\circ C$
   
   $-3 \, ^\circ C$ is greater / less than $-4 \, ^\circ C$

3) Write the numbers from smallest to largest. The number line can help.
   
   a) 6, -2, 3, -5
   
   b) -3, 4, 0, -7
   
   c) 1, -9, -2, 3
   
   d) -1, -5, -8, -3
Pack 5 Session D

**Talk Task:** Greater than and less than

A positive number is greater than a negative number.

A positive number is equal to a negative number.

A positive number is less than a negative number.

A negative number is greater than a negative number.

-7 is greater than 4 because $7 > 4$.

-7 is greater than -4 because $7 > 4$. 

$\geq$
Activity: Greater than and less than

1) Choose the correct symbol, > or <, to complete each. Then choose always or never to complete the sentences.

\[
\begin{array}{ccc}
-1 & 2 & 1 \quad -2 \\
-2 & 2 & 2 \\
-3 & 2 & 3 \\
-4 & 2 & 4 \\
\end{array}
\]

A negative number is ______ less than a positive number
A positive number is ______ less than a negative number

2) Choose the correct symbol, > or < or =, to complete each.

\[
\begin{array}{cccc}
2 & 5 & -2 & -5 \\
3 & 6 & -3 & -6 \\
4 & 7 & -4 & -7 \\
24 & 27 & -24 & -27 \\
\end{array}
\]

21 19 21 19 
21 20 21 20 
21 21 21 21 
21 22 21 22

3) Mark the position of zero, five and negative five on each number line.

a) 
\[
\begin{array}{cccc}
-20 & 20 \\
\end{array}
\]

b) 
\[
\begin{array}{cccc}
-20 & 60 \\
\end{array}
\]

c) 
\[
\begin{array}{cccc}
-10 & 30 \\
\end{array}
\]