



2. Holiday Snaps

Objectives

- Use negative numbers in context and calculate intervals across zero

I can

- Identify positive and negative numbers
- Order positive and negative numbers
- Find differences between positive and negative numbers

Resources

- Rulers to draw number lines

Introduction

- Discuss negative numbers. What are they? Agree that they are numbers below zero and that we say 'minus' before the number, e.g. '3 below zero is minus 3'. When we count back down past the zero or back up past zero into the positive numbers, the zero is always included.
- Ask the children when we use negative numbers in 'real life', e.g. temperature or bank statements.
- In this activity, the focus is on temperature and finding the differences between temperatures. Talk about the concept of zero – in the context of this activity, zero is freezing point. The higher the number above zero, the warmer it is. The further below zero, the colder it is. (As a point of interest, absolute zero, the coldest temperature possible, is -273.15° Celsius.)

Solutions

- Sunny Jim might have been to Jamaica, Australia, Rome, Portugal and Brighton. Chilly Lily might have been to Austria, Scotland, Newcastle, Russia and Canada, **2.** Canada, -36°C , Jamaica, 34°C , **3.** 70°C , **4.** Check number lines, **5.** 11°C , **6.** 31°C , **7.** 53°C , **8.** 81°C , 96°C , **9.** 31°C , 101°C , **10.** Answers will vary.

During the activity

- Study the temperatures of the places Sunny Jim and Chilly Lily have visited on their holidays and encourage the children to say them out loud, e.g. 'In Scotland it was minus nine degrees.'
- Decide which places are hot and which are cold.
- Together look at the difference in temperature between Jamaica and Rome, and then ask pairs to look at the difference between Brighton and Newcastle. Remind them to include the zero when calculating.

If you have time...

- The children research the coldest temperature ever recorded in this country. How many degrees colder or hotter is that than the temperature reading today?

Maths words

degrees, Celsius, zero, minus, negative

Holiday Snaps

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1. Which places do you think Sunny Jim has been to? What about Chilly Lily?
 2. Which is the coldest place that Chilly Lily has visited? Which is the warmest place that Sunny Jim has visited? What was the temperature in both places?
 3. What is the difference in temperature between the hottest and the coldest place?
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4. Draw a number line from -40°C to 40°C . Plot on all the temperatures on the cards.
 5. What is the difference in temperature between Australia and Portugal?
 6. What is the difference in temperature between Rome and Scotland?
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7. Parts of Russia can have temperatures that rise to 28°C . What is the difference between this temperature and the temperature it was when Chilly Lily visited?
 8. Chilly Lily is planning on visiting the Antarctic. She hopes to go when the temperature has dropped to -84°C . How much colder will it be than the warmest place she has visited so far? How much colder will it be than the coolest place Sunny Jim has visited so far?
 9. Sunny Jim is planning a visit to the Sahara Desert. He expects the temperature to reach 65°C in the middle of the day. How much hotter is this than the hottest place he has visited so far? How much hotter than the coldest place Chilly Lily has visited so far?
10. Make up 3 more questions from the picture to ask your friend.