

**LEARNING and TEACHING POINTS**  
for  
**Chapter 16**  
**Integers: Positive and Negative**

Children can have fun generating the integers on a basic calculator. To produce the positive integers, just enter: +, 1, =, =, =, ... and continue pressing the equals sign as many times as you wish. To produce the negative integers, just enter: -, 1, =, =, =, ... The reader should be warned, however, that various calculators have different ways of displaying negative numbers – and that this may not work on more sophisticated calculators.

Use familiar contexts such as temperatures, multi-storey buildings, heights above and below sea level and bank balances to give meaning to positive and negative numbers.

Use additions with positive and negative integers to model simple questions about temperatures falling and rising: with the first number representing a starting temperature and the second a rise or fall of so many degrees. Use parallel examples about bank balances, credits and debits.

Never talk about ‘taking away’ a negative number. This language is meaningless and just adds to the confusion.

To enable children to experience subtractions with positive and negative integers informally, use questions about the comparison of two temperatures, finding how much higher is one temperature than another, or the difference in temperature. Also, use parallel examples comparing two bank balances.

Make sure children know how to enter negative numbers on the basic calculators used in their school and that they know how they are displayed.