

ACTIVITY 1

The problem solving model

Using the first step from the problem solving model - *Identify the Problem* – show your understanding of what do you need to find out. in the following problems. Underline clue words and the important facts given.

Jo has built a cubby house and her uncle has offered to give her some carpet squares from his shop to cover the floor.
Each carpet sample has a square perimeter of 72cms.
The cubby house floor is 12m by 9m.
How many carpet squares will Jo need?

Vinny decided to hike a 12km trail through the Blue Hills. He began at 9:20am. After Vinny had travelled $\frac{1}{3}$ of the distance, he looked at his watch and the time was 10:05am.
If Vinny continues to walk at the same pace what time will he finish the walk?

John, Tina and Sam rented a boat. The rental is \$10 for the first hour and \$7.00 for each additional hour. The fee for partial hour is proportional to the hourly rate eg half hour cost \$5. The friends rented the boat at 10am and brought it back to the rental shop at 3:20pm. They decide to share the cost equally. How much did each pay?

The local school hosted a pancake breakfast to raise money for a new playground. They invited 240 people and made enough batter so each person could have three pancakes. Only $\frac{3}{4}$ of the people came so they decided to give everyone more pancakes. How many pancakes did each person get?

ACTIVITY 2

Problems solved by technology

Technology can address many problems. There's a variety of inspiring innovations tackling some of the world's greatest challenges. For each invention below, name the problem it solves.

SOLUTION	PROBLEM
The boomerang	
The wheel	
The printing press	
Optical lenses	
The steam engine	
Refrigeration	
The compass	
Cochlear implant / bionic ear	
Dual flush toilet	
Sticky Tape	
Google	