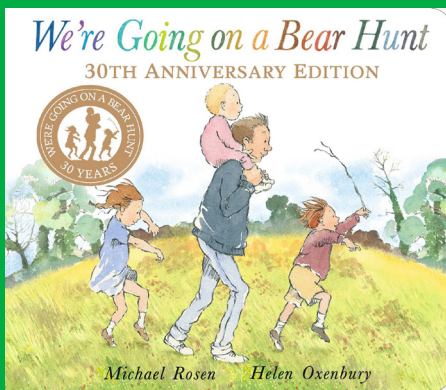# INVESTIGATIONS

James Russo, Monash University and Toby Russo, Spensley Street Primary School

WE'RE GOING ON A BEAR HUNT

Read *We're going on a Bear Hunt* by Michael Rosen and Helen Oxenbury, and have a go at this problem solving task, and these two games (suitable for middle and upper primary).

THERE AND BACK
ADDITION AND MULTIPLICATION

The weather was fine, so the family decided to go on an outing... on a bear hunt! The family encountered many obstacles along the way. It took:

- 10 mins to swish through the grass
- 20 mins to splash through the river
- 30 mins to squelch through the mud
- 40 mins to stumble through the forest
- 50 mins to hooo-wooo through the snowstorm
- 10 mins to tiptoe through the cave

On the way back, the family went a lot quicker to avoid being eaten by the bear, and they got back to their house in exactly one hour. If they travelled at least twice as quickly through each obstacle on the way back, can you work out how long it might have taken them to travel back through the grass, river, mud, forest, snowstorm and cave? Can you find more than one possible set of answers?

GAME: FOUR CORNERS
CHANCE AND DATA

A whole class game involving a deck of cards; with each corner of the room representing one of the four suits.

A twist on the probability game *Four Corners*. How many members of the class will make it back from the bears cave? Every student chooses a suit and stands in the corresponding corner.

We begin at the 'snowstorm'. A card is revealed – the location of the snowstorm (e.g., a spade). Students who are caught in the snowstorm (e.g., standing at spades) are out, and return to their seat. Remaining members of the class face the 'forest' next, and the process is repeated. After that, the 'mud', the 'river', and finally the 'grass'. Students who survive the final stage, the 'grass', make it home. How many students make it home safe?

Play the game multiple times. How many in your class escaped the bear each time? How many, on average, would you expect to escape the bear? How do you know this?

GAME: HOME SWEET HOME
ADDITION AND CHANCE

To play this game, you will need a 100-chart (or 120-chart), a deck of cards, a counter and two players.

Player 1 places the counter, representing their home, on any number on the chart. The higher the number, the more potential points, but the more risk of being caught by the bear! Player 1 begins turning over cards one at a time. Cards are worth their face value, and the player moves this many places along the chart (beginning at zero). For example, if the first three cards were: 4, 7, Ace, the player would be on the 12 square.

The goal is to get to your house before you turn over a 'bear' (any King card). Queens are a 'snowstorm' (go back 10); Jacks are a 'swamp' (go back 5).

Player 1's turn ends either when they reach their home (the number with their counter on it), and bank that many points, or when they encounter a 'bear' (i.e., turn over a King), who catches them, leading to a score of zero for the round.

Next it is Player 2's turn. They repeat the same process. Play continues in this manner, back and forth, until all the cards in the deck have been played. Whoever has banked the most points is the winner.

Have you used picture story books in your classroom? Our readers would love to hear your experiences of exploring mathematics through stories. You can share your ideas with us at primenumber@mav.vic.edu.au.