

Odds and evens

Syllabus focus area and content group

Multiplicative relations A

- Generate and describe patterns
 - Recognise the significance of the final digit of a whole number in determining whether a given number is even or odd (Reasons about relations)

Suggested outcomes

- MA2-MR-01

Resources

- Always, sometimes never statement cards
- Bean bags, cones, counters
- Witches hats

Activity set-up

- Have bean bags, counters, marbles etc in outdoor space for students to use as concrete materials when investigating properties of odd and even numbers.
- Mark 2 vertical lines with cones or use lines already marked on a court ~ 2m apart, side-by-side.
- Place a line of witches hats 15 metres away from each line of cones in opposite directions.
- Students start standing next to a cone, standing side-by side with a partner.
- There should be two long vertical lines of children with each line two metres away from the other line.

Learning task

- Students explore odd and even numbers using NRich learning task 'Always, sometimes, never'.
- Teacher names one line as 'even' and the other line as 'odd'. Each 'even' should be paired up with an 'odd'.
- Teacher calls out a number. If it is even, students in the 'even line' run away from the students in the 'odd line' to witches' hats. If it is 'odd', students chase after them trying to tag them before they get to the safe zone past the witches' hats.
- Reset back in line.
- Teacher continues to call out numbers. Even numbers mean even runs back to witches' hat with odd chasing. Odd numbers called mean odds run back to witches' hats with evens chasing them.
- Children can keep count of the number of times they catch their opponent.

Talking and thinking like mathematicians

Can you predict whether the answer to a calculation will be even or odd by using the properties of the numbers in the calculation?