

Number Circuits



Objective

Reinforce mental maths skills.



Equipment

- Stackable PE cones/markers / 'mini whiteboards'



Preparation

- Select sets of numbers (minimum 6 per set?) to use in this activity according to pupils' age/ability. These should be sequences of numbers that pupils can add, or subtract from a starter number, using mental arithmetic. (See example number circuits below).
- Use a whiteboard marker to write each number on a stackable PE cone/marker or whiteboard. Keep these in sets.
- The cones/markers or whiteboards should be used to create a large circuit (e.g. within a large area of the school field).
- To prepare each game, give each cone in a set to a pupil. Indicate where they should run to and place the cone. (This will also enable the rest of the class to see the circuit which they must run around.)
- Split the class into small teams in which they will carry out the activity.



Instructions

- Teams begin at the same starting point. They complete the circuit by staying together and travelling around it in either a clockwise or an anti-clockwise direction (half of the teams travel in each direction).
- For addition circuits, they must run to the first cone and look at the number that is written on it. They then run to the next cone and add the number from that cone with the first number. They continue to add on each consecutive number until they have visited all the cones and reached a total.
- For subtraction circuits, teams are given a starter number. They have to subtract each number that they come to on their circuit from the starter number.
- When they have completed the circuit, teams return to the teacher and check to see if their final number is the correct one for that number circuit.
- As an alternative, teams could split up and go separately to different points on the circuit, remember the numbers of the markers and then return to the start to share the numbers they have collected with teammates and calculate the final total for that circuit.



Other information

Examples of number circuits:

6 cone + circuits	6 cone - circuits	8 cone + circuits	8 cone - circuits
$2 + 8, + 3 + 5 + 6 + 4 = 28$	40 (starter number) $- 5 - 10 - 2 - 3 - 4 - 6 = 10$	$5 + 10 + 8 + 12 + 7 + 3 + 9 + 6 = 60$	60 (starter number) $- 8 - 12 - 5 - 7 - 9 - 3 - 4 - 6 = 6$
$9 + 7 + 5 + 8 + 6 + 10 = 45$	28 (starter number) $- 8 - 2 - 6 - 4 - 3 - 5 = 0$	$14 + 6 + 7 + 3 + 12 + 8 + 15 + 9 = 74$	112 (starter number) $- 9 - 4 - 12 - 8 - 10 - 6 - 5 - 2 = 56$
$17 + 13 + 9 + 12 + 14 + 18 = 83$	65 (starter number) $- 6, - 3 - 13 - 9 - 15 - 11 = 8$	$16 + 8 + 12 + 18 + 14 + 22 + 20 + 13 = 123$	142 (starter number) $- 16 - 12 - 14 - 8 - 9 - 10 - 7 - 13 = 53$

