

NUMBER TRAILS

Materials:

Student workbook folded into four columns

WALT: Use knowledge of the number sequence to continue a counting pattern.

WILF: Fluency with the number sequence and an understanding of place value and number patterns.

Game Objective: To continue a number sequence following a given rule.

Summary:

- This game can be played with the whole class or a small group
- The teacher names the starting number and the rule for the counting pattern, for example, start at 6 and count forwards by 5
- The whole class records the starting number and then continues the number sequence following the rule
- Remind students to record the numbers going down the column (this will help students identify possible patterns later)
- After a short period of time (allow enough time for students to record at least 10 numbers – this will depend on the complexity of the numbers and rule) ask students to stop and to place a line under their last recorded number
- Select one student to read out their pattern (aim to choose a student who may have only recorded a few numbers)
- Record this pattern on the board in a column
- Ask a second student to continue the pattern – aim to record around 10 numbers
- Now ask if any students have recorded any more numbers – do not record these numbers on the board, instead acknowledge this students' counting skills
- Ask the class to look at the number sequence recorded on the board – do they notice any patterns?
- Identify any patterns and use this information to record future terms
- Choose another starting number and rule and ask students to continue recording numbers from below the line of the last number sequence

Additional Information:

- This benefit of this game is that all students can participate
- All students have a go at recording the sequence, hearing the sequence and seeing the correct sequence on the board – encourage students to change their own sequence if they identify an error
- Challenge students to increase the amount of numbers they record each turn – can they improve their score?
- If students are having difficulty with the number sequence, they may need the support of a counting chart or number line (students will need to be shown how to use these resources to help them with the task)

Variation:

To increase the complexity of this activity, modify the numbers being used, along with rules. Remember to include rules that require students to count backwards or require students to go beyond familiar counting patterns, like count forwards by 10 starting at 10. Also consider using decimal numbers or fractions (note for fractions it is easier to identify the pattern if the numbers are written from left to right – simply have the students rotate their book so they do not need to redraw the columns).