MaSCE³
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Didactical Document Theme-Based Trail on Sequences/Patterns (Grades 5-6)

Trail Codes: 154392; 174682

Title	Grade	Main concepts	Students learn	Data to collect	Objects	MCM References
Counting	3	Subitizing	-Identify quantities through visual counting - Instantly recognize the number of elements in a set without counting	Visual recognition	Mobile Glass protection	1821899 1722961
Repetition pattern	5	Repetition pattern (ABC pattern)	- Determine a rule compatible with a partially known sequence	-Repetition unit	Objects in the playground disposed in a repetitive sequence (waist bin, bench, drinking fountain) Recycling bins	3721885 0622963
Repetition pattern	5	Repetition pattern (AB pattern) and measurement	- Determine a rule compatible with a partially known sequence - Measure distances and lengths using metric units and perform conversions - Find the maximum common divisor between two numbers	-Repetition unit -Measurement of the length of each element of the sequence	Goal frame Trees	2621884 4622962

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Combinatorial counting	5	Combinations (P(n,n) and 5 elements).	Solve problems involving multiplicative situations in a combinatorial sense	Number of elements	Car parking spots	3921886
Combinatorial counting	5	Combinations (P(n,r) and 2 elements).	Solve problems involving multiplicative situations in a combinatorial sense	Number of elements	Bicycle stand	0921892
Combinatorial counting	5	Combinations (P(n,r) and 3 elements).	Solve problems involving multiplicative situations in a combinatorial sense	Number of elements	Hand wash basins Football bench (seats) Bike parking spots	1821900 0922965 1822966
Growth pattern	5	Growth pattern (linear pattern) and measurement	- Determine a rule compatible with a partially known sequence - Measure distances and lengths using metric units and perform conversions	Known terms of the sequence (measurement of the length and width of the rectangles)	Drinking fountain Manhole cover	3615554 1722968
Growth pattern	6	Growth pattern (Fibonacci sequence)	Determine a rule compatible with a partially known sequence	Number of elements	Stairs	1721888 7822979
Growth pattern	6	Growth pattern (square numbers) (divisors)	Determine a rule compatible with a partially known sequence	Number of elements of different types	Lockers	2421898 6722980

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Growth pattern	6	Growth pattern (square numbers)	Determine a rule compatible with a partially known sequence	-Visual recognition -Number of elements of different types	Chessboard in the playground Chessboard game Pavement	0421893 5922978 3522972

Notes:

The teacher should propose a trail with 7-8 tasks containing diversified concepts (subitizing, combinatorial counting, repetition pattern, growth pattern). It is also important to present tasks with different cognitive levels (low; high) to motivate/challenge students.

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