

# FUN WITH PATTERNS:

## SUGGESTIONS FOR SUPPLEMENTARY INVESTIGATIONS

WEB SITE	DESCRIPTION	VALUE
Illusions	other geometric illusions (2 to 4 depending on complexity)	1/2 point
Number Tricks	other number tricks (2 to 4 depending on complexity)	1/2 point
Problem Solving	other problems (3 to 6 depending on complexity)	1 point
Topic 1	construction rules for 4 x 4 magic square	1/2 point
Topic 2	CayleyQuilter software (2 to 3 variations)	1 point
Topic 2	modular systems in everyday life	1/2 point
Topic 3	how "phi" is my face (on disk plus analysis / use printscreen)	1 point
Topic 3	pentagram on flags	1/2 point
Topic 3	10:10 or 1:50 on non-digital clocks (collage of examples)	1/2 point
Topic 3	golden ratio in art (new pictures)	1/2 point
Topic 4	Fibonacci numbers in nature (new pictures)	1/2 point
Topic 5	binary game (like Tower of Hanoi, Spinout or Nim)	1/2 point
Topic 6	multiples of 6 visual pattern / each number a distinct color	1/2 point
Topic 6	other multiples visual patterns (2 to 3)	1 point
Topic 7	construction of an Islamic pattern	1 point
Topic 7	construction of a Trinity knot	1/2 point
Topic 7	crop circles	1/2 point
Topic 8	Moire patterns	1/2 point
Topic 9	curve stitching (2 to 4 depending on complexity)	1 point
Topic 10	rotary (Wankel) engines	1/2 point
Topic 11	spirograph (4 to 6 depending on complexity)	1 point
Topic 11	spirographer software	1/2 point
Topic 11	sand pendulum (include digital photo of result)	1 point
Topic 12	fractals in nature	1/2 point