

# Math Projects Detail

S.No	Title of Project	Project detail
1	Pattern Shapes	Children are challenged to create an interesting geometric pattern using geometric shapes
2	Securing Art Galleries	Children will be challenged to secure an art gallery through geometry
3	Squares and Odd Numbers	Children use a geometric pattern to investigate the concept of squares and the sum of odd numbers.
4	Cubes in a Room	Children construct shapes, hidden from view, and try to describe their shapes to their partners using only words, so that their partners can build the shapes without seeing the originals.
5	Straw Structures	Children Work together to create large structures out of straws and pipe cleaners to enhance their three dimensional visualization skills.
6	Soma Cubes	Children discover all possible irregular arrangements of four or fewer cubes and use them to build a some cube.
7	Divisibility Circle	Children create a notched cardboard circle and attach a long piece of yarn, which they use to investigate numeric divisibility and number patterns.
8	Discovering PI	Children measure large circle circumferences and diameters and look for a relationship between them.
9	Tessellations	Children investigate Escher drawings and work on creating their own tessellations.
10	Geometry Memory Game	Children create geometric patterns on circular templates and play memory with them.
11	Crawling around the moebius strip	Children attempt to create a Moebius strip in answer to the challenge of drawing a line on both sides of a strip without lifting their pencils.
12	What Color ?	Children investigate a net (or template) of a paper house with walls and roof in certain colors. They then investigate what other nets would yield the same house and what color would be where.
13	Balances and Equations	Children model linear equation by building and playing with a balance they create.
14	Proof with Pythagoras and Fermat	Children experiment with concrete constrictions based on the ideas (Pythagorean theorem and Fermat's last theorem) of two great mathematicians and think about the concept of mathematical proof.
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15	Steamers Problem	Children investigate instances of the classic nodes, or handshakes, problem and look for patterns leading to a solution using streamers.
16	3-D Tic Tac Toe	Children practice three-dimensional visualization and reasoning, as well as problem solving in three dimensional space.
17	Fractals and Infinity	After investigating the idea of “things that keep on going” children construct a fractal of their own and investigate the notion of a limit.
18	Tetrahedral Fractal	Children crate a three-dimensional fractal by working together to create the components tetrahedrons that repeat on a larger and larger scale.
19	Distributing Tiles	This activity focuses on developing multiplication, the distributive property, and binomial multiplication with number tiles.
20	The Rice Problem	Students investigate the exponential function with a concrete example.
21	Lines, Squares, Cubes and Hypercube	Students investigate the first four dimensions with concrete models.
22	A Temperature Experiment	Students investigate warming up and cooling down.
23	Circular Reasoning	Students Develop the formulas for the area and circumference of circles by investigation.
24	Coins for Compassion $a^{>64}$	This is an investigation with nonstandard measures and large numbers, with a social-justice theme.
25	Toothpick rectangles	Students investigate the area and perimeter of rectangles and their relationships.
26	The Stairs Problem	Students investigate ways to find the sum of a list of consecutive numbers with a concrete model.
27	Gumball Boxes	This activity requires filling boxes with gumballs and looking at what happens when the sizes of gumballs get smaller and smaller.
28	Kaleidocycles	Students create their own geometric hexalexigon.
29	Four Coloring Theorem	Children will know why it is sufficient to use four colors to fill the any map of the any region in the world?
30	Clock Arithmetic	Students will learn new kind of arithmetic based on crazy clocks.
31	Investigating Platonic solids	Students will learn the creation of the platonic solids and why the Euler’s formula is true for such solids.
32	Puzzle Mania	Students will solve fascinating physical puzzles