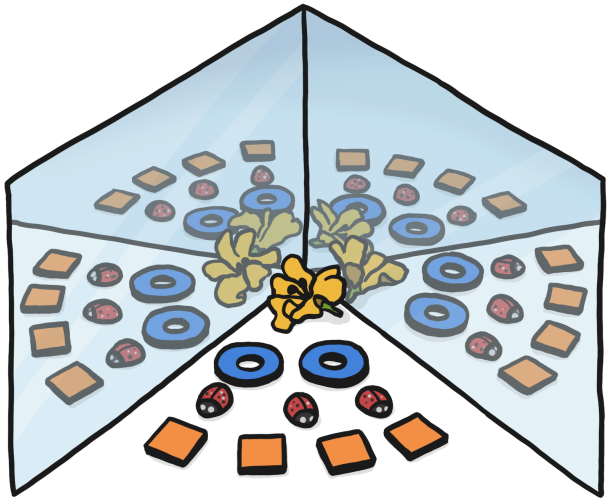
IS WHAT YOU MAKE IT!

Natural Math

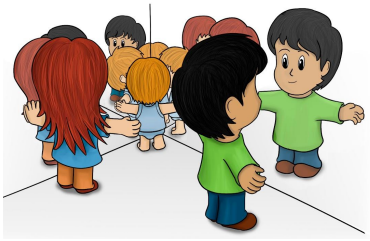
Find examples
Pose problems
Design puzzles
Ask questions
Write stories
Build models
Create art
Make mathematics

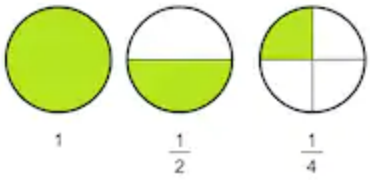
Mirror Books

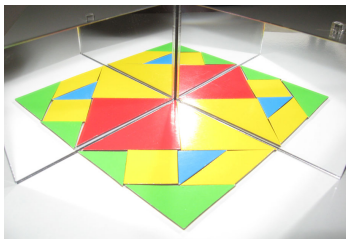


Try: Open the mirror book. Put objects inside. Move your objects and mirrors.
Interesting choices: What to move and to change? What to keep the same?

Actions	open or close (the book), shift, reflect, draw, arrange
Things	middle point, angle, the inside and the reflections
Concepts	angle, multiplication, fraction variable reflect, line symmetry, rotate, radial symmetry







Mathematics – ***big subject areas***

Isometric transformations – *algebraic geometry*
Repeated reflections and limits – *calculus*
Full picture data in one wedge – *information theory*
Infinity rooms, wallpaper groups, Frieze patterns, tilings, tessellations – *group theory*
Puzzles and art – *recreational mathematics*

From International Mathematics Subject Classification (MSC)

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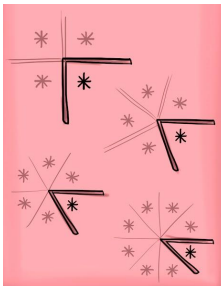
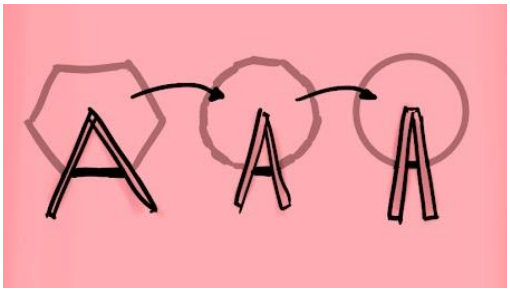
Mirror Book Prompts

Use our prompts + **Create** new prompts = Make math





1. Multiplying shapes 1

Try: Put simple shapes inside the mirror book.
Choose: What shapes, where, how many. Try | △ ⚪ ♡ ⬜.
Look: The shapes multiply.

3. +Snowflake

Try: Put the mirror book over a paper snowflake.
Choose: Folded or unfolded snowflake, where.
Look: Does the mirror book complete the same snowflake or make a surprise snowflake?

Rearrange. Move shapes and mirrors. Try again.

2. Multiplying shapes 2

Try: Put the mirror book over a complex shape.
Choose: What shape, where. Try creatures, trees, cities, or faces.
Look: Parts of the shape multiply.

4. Shape transformer

Try: Pick a shape. Draw a part of your shape. Use the mirror book to complete your shape.
Choose: What shape to aim for. Try ⬜ ☆ 🌸.
Check: Did your mirror book complete your shape, or made a surprise shape?

5. Your mirror art

Try: Many different shapes and different angles. Two or more mirror books together.
Choose: How to arrange shapes and mirrors. Your point of view.
Design: Your style of mirror art.

Keep reflecting!

6, 7, 8, … Attach your prompts

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