

Activity Idea

Activity	Homemade puzzles
Main Focus	Fitting shapes together

Resources	➤ Cardboard boxes, pictures, pen, scissors – bag and label for storage
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Activity Outline	The aim of the activity is for children to fit shapes together by turning or flipping them, and noticing properties like matching angles, side length or curves. Make a range of puzzles of varying complexity by sticking a picture to a cardboard box (or just using a box with a picture on it, like a cereal box), then marking lines on the back and cutting into pieces. You can make a range of puzzles with different numbers of pieces, shape and size. The puzzles can be labelled and bagged for storage. Model strategies, like, <i>'I think we need a piece with short sides to go above that one'</i>, <i>'Let's look for the ones with square corners first'</i>, <i>'I think if we turn this one round like this it will fit.'</i> Suggest strategies: <i>'Try hovering it over the gap, and see if you think it will fit'</i>. <i>'What about if you turn it round?'</i> Encourage children to predict and visualise, by asking e.g. <i>'Where do you think that piece will go?'</i>, <i>'Which way will you have to turn it to fit?'</i> Encourage children to explain by asking e.g. <i>'Why do you think that?'</i>, <i>'What sort of piece do we need for that gap?'</i>
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Extension Opportunities	✓ Make more challenging puzzles with fewer picture clues and more pieces, cut with curved lines ✓ Invite children to make their own puzzles by drawing lines to cut (and choosing or making pictures) ✓ Encourage families to play with jigsaw puzzles of increasing complexity
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With acknowledgement to the Erikson Early Mathematics Collaborative: <https://earlymath.erikson.edu/diy-puzzles-made-from-cardboard-can-develop-spatial-thinking/>