

## Learning Styles

We all learn in different ways. Research shows that there are possibly 7:

linguistic, mathematical, musical, spatial, visual, interpersonal and intrapersonal.

Because we have varying proportions aspects of many of these intelligences, we all tend to think and solve problems in different ways. Sometimes these work better than others.

We all have a right and left side to our brain, working in harmony. With the left processing words, logic and sequence. The right processes rhyme, music, pictures and imagination. We seem to predominantly use one side or the other.

The brain is like a muscle, so if you don't use it, you lose it! The trick to using more of your massive brain capability and to becoming a more successful learner is to develop other ways of looking at things and alternative approaches to problems.

This leaflet contains a small selection of puzzles designed to make you think in various ways using different parts of your brain.

We hope you have fun solving the puzzles—solutions at [www.learning-tree.org.uk](http://www.learning-tree.org.uk)



## The Learning Tree Matchstick Puzzles

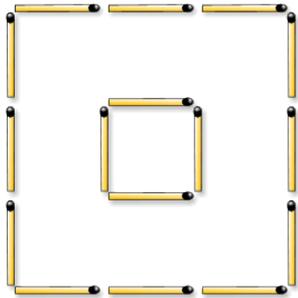
A fun collection of puzzles to exercise your brain

It is possible to solve these puzzles in your head, but you might find it easier to use the sticks in this kit to actually set out the puzzles on a table and try to solve them by moving the matches around.

These are derived from matchstick puzzles popular from the time when candles and gas lighting meant that almost everyone carried a small box of matches with them. Instead of live matches we have substituted plain sticks.

Please remember this puzzle set is not a toy, it contains small parts and is not suitable for babies and children under 36 months.

[www.learning-tree.org.uk](http://www.learning-tree.org.uk)

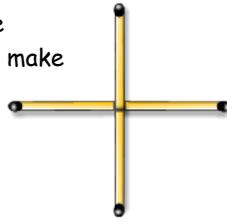


### 2 Squares to 3

Move 4 matches to make 3 squares

### Square

Move one match to make a square

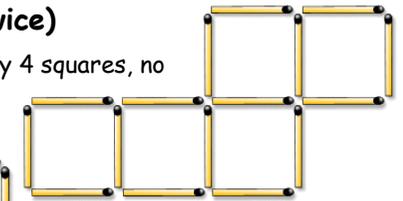
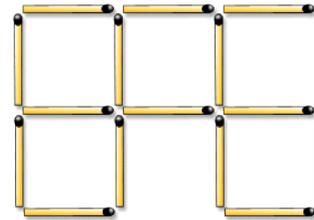


### 4 Triangles

Use 6 matches to make 4 equilateral triangles (no broken matches)

### Remove a Square (twice)

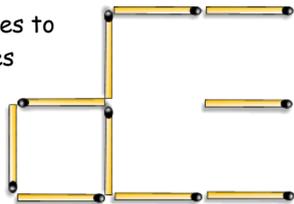
Move 2 matches to get only 4 squares, no overlapping or loose ends



Move 3 matches to get only 4 squares, no overlapping or loose ends

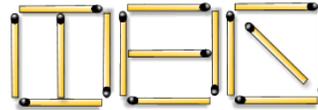
### 10 to 2 Squares

Move 3 matches to make 2 squares



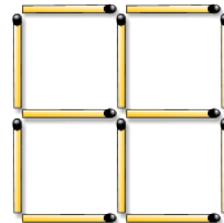
### 2 Triangles to 4

Move 1 match to make 4 triangles



### 15 to 10

Remove 6 matches from these 15 to leave 10



### 4 Squares to many

Take this arrangement and with the following moves:

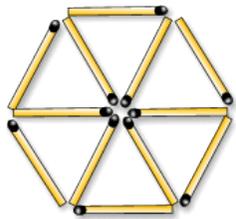
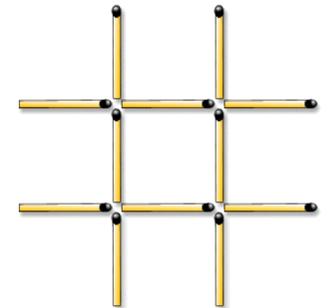
Move 2 matches to make 7 squares

Remove 2 matches and leave 2 squares

Move 3 matches and leave 3 squares Remove 3 matches and move 2 to form 3 squares

### Make 3 Squares

Move 3 matches so that 3 squares are formed



### A Wheel to Triangles

Move 4 matches to form 3 equilateral triangles



### 7 to nothing

From these 7 matches, take 1 away and move 2 to leave nothing

### Ice in the Glass

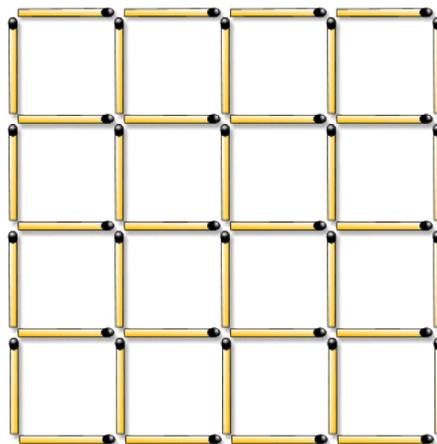
(Easy) Move 3 matchsticks and reform the glass in the same shape so the ice is outside it

(Harder) Move 2 matchsticks and reform the glass in the same shape so the ice is inside it



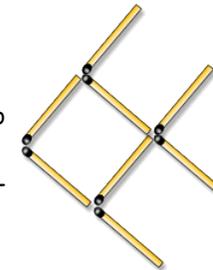
### 16 Squares to none

Remove 9 matches so that no square (of any size) remains



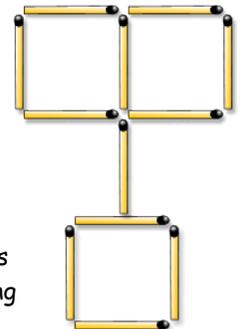
### Swimming Fish

Move 3 matches to turn the fish around, no overlapping



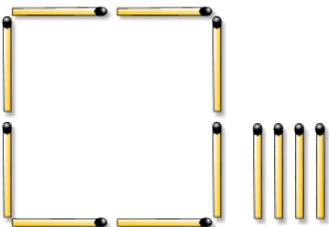
### 3 Squares to 5

Move 6 matches so that 5 squares are formed



### Divide by 2

Use the 4 spare matches to divide the large square into 2 parts of the same shape. Use the matches without breaking or overlapping them



### 5 add 6 makes 9

Add 5 matches to these 6 matches and make 9



### 3 Triangles to 4

Move 3 matches to make 4 equilateral triangles



### 3 to 6

Make these 3 matches into 6 without breaking them

