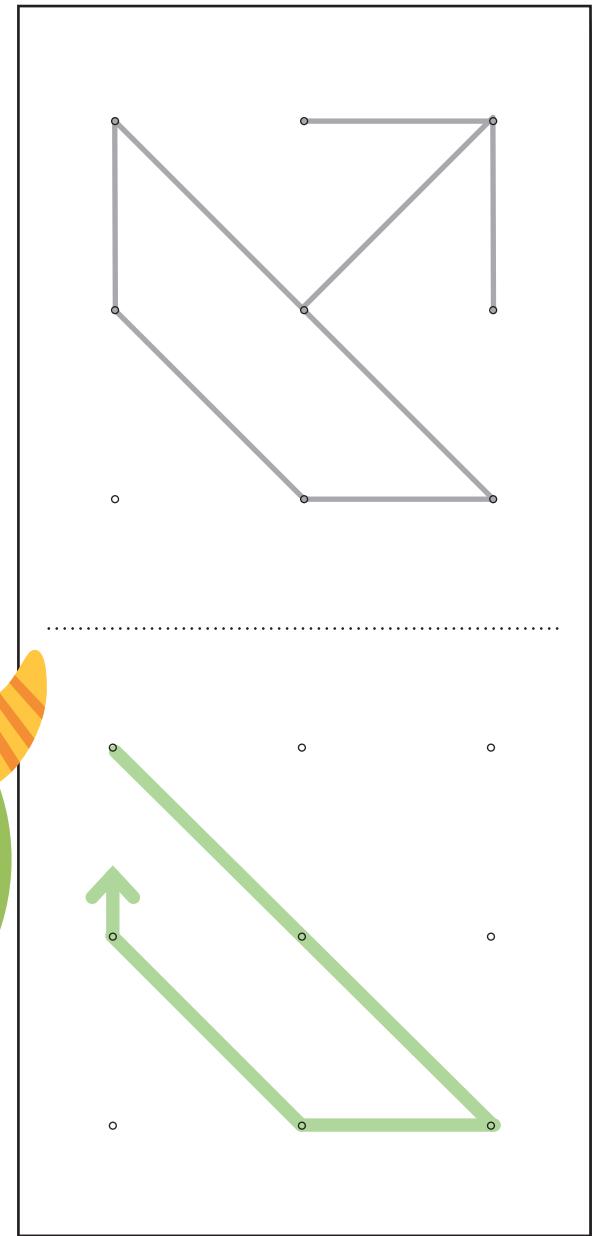


5.3

SPATIAL ORGANIZATION

Connecting Dots: Shapes



dr. Kristijan Musek Lešnik, dr. Petra Lešnik Musek

VISUAL-MOTOR INTEGRATION & GRAPHOMOTOR TRAINING WORKBOOK

SPATIAL ORGANIZATION CONNECTING DOTS - SHAPES

dr. Kristijan Musek Lešnik

dr. Petra Lešnik Musek



SPATIAL ORGANIZATION

CONNECTING DOTS - SHAPES

dr. Kristijan Musek Lešnik

dr. Petra Lešnik Musek

Workbook title: SPATIAL ORGANIZATION: Connecting dots - shapes

BrainscribED Resources for Visual-Motor Integration and Graphomotor Skills Development

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Members/subscribers of the BrainscribED Expert Program may print and use individual worksheets from this workbook for their own professional work during the term of their membership/subscription.

Illustrations: Daniela Barreto, Shutterstock

Front cover illustrations: los_ojos_pardos, Shutterstock

First paperback edition, 2024

Some of the worksheets first published in e-form in 2009

Number of pages: 114



BrainscribED workbooks help children develop and strengthen their visual-motor integration and graphomotor skills!

Published by:

IPSOS dr. Kristijan Musek Lešnik s.p.

Požarnice 26d, SI-1351 Brezovica pri Ljubljani

www.brainscribed.com

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About connecting dots in shapes

Why connecting dots activities are important

Connecting the dots into shapes and drawing straight lines between the dots encourages your child's eye-hand coordination. As children draw a line from one dot to the next, their eyes follow the developing line and at the same time compare its direction with the position of the target dot. This comparison is followed by micro-movements of the hands and fingers, which help the child to align the line towards the intended target dot. The whole process reinforces visual-motor integration and fine motor control of hand and finger movements.

Line-drawing activities between dots promote the acquisition of spatial concepts, which later play an essential role in the development of pre-writing skills, writing, drawing and other important graphomotor and fine-motor skills. Tasks in which children search for the shortest distance between different dots while drawing promote visual discrimination, while tasks involving changes of direction contribute to the development of kinesthetic awareness and reinforce the control of micro-movements.

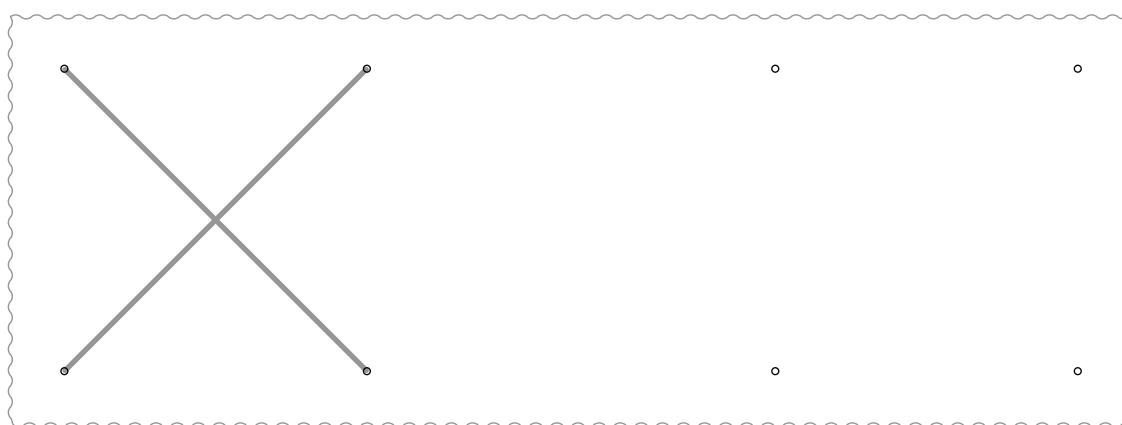
Worksheets and activities in this workbook

The activities and tasks in this workbook, in which children connect multiple dots in shapes, are designed to strengthen visual-motor integration and basic graphomotor skills.

Children should not change the position of the paper or turn it while drawing. They should be encouraged to draw each line in a single stroke without stopping or moving the drawing tool.

The activities and tasks are sequenced from easy to more complex and difficult, and their difficulty is progressively increased in a variety of ways:

- by increasing number of dots in grids of dots,
- by increasing/decreasing distance between dots,
- by increasing complexity of shapes.



Example: medium difficulty, four dots.

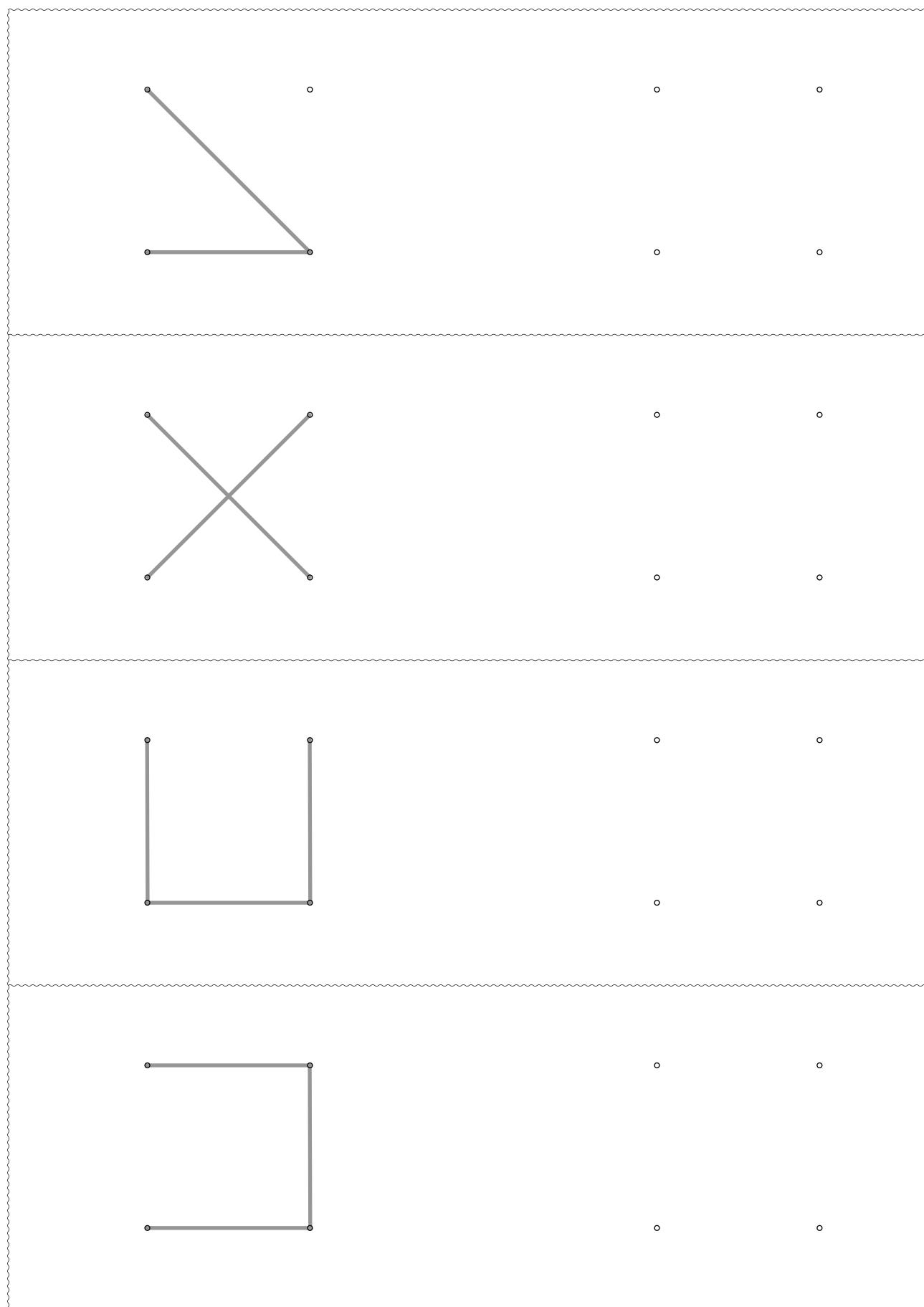
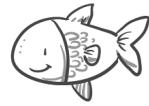


Example: complex pattern, nine dots.

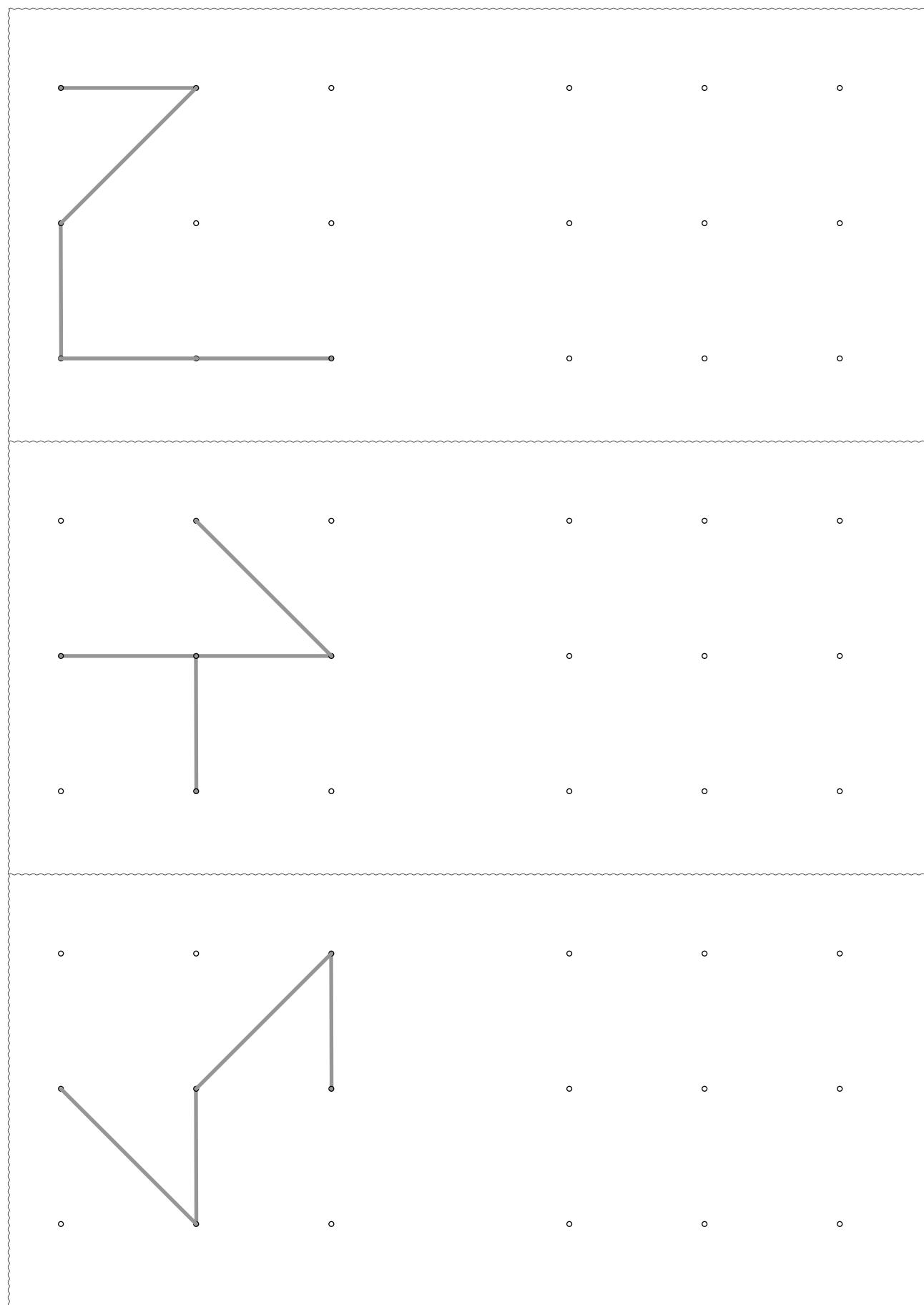
Instructions

Ask the child to copy shapes in grids of dots.

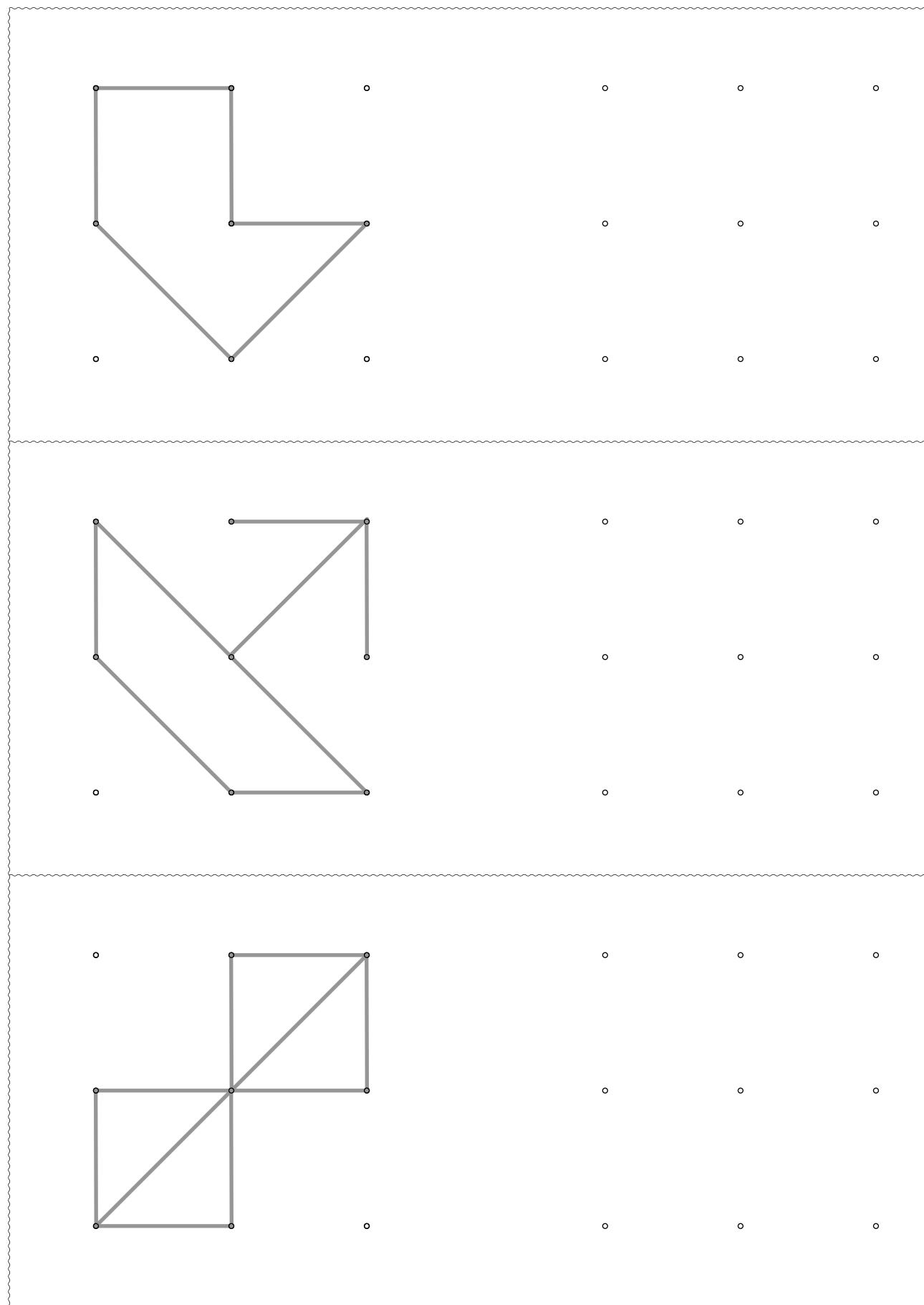
COPY THE PATTERNS.



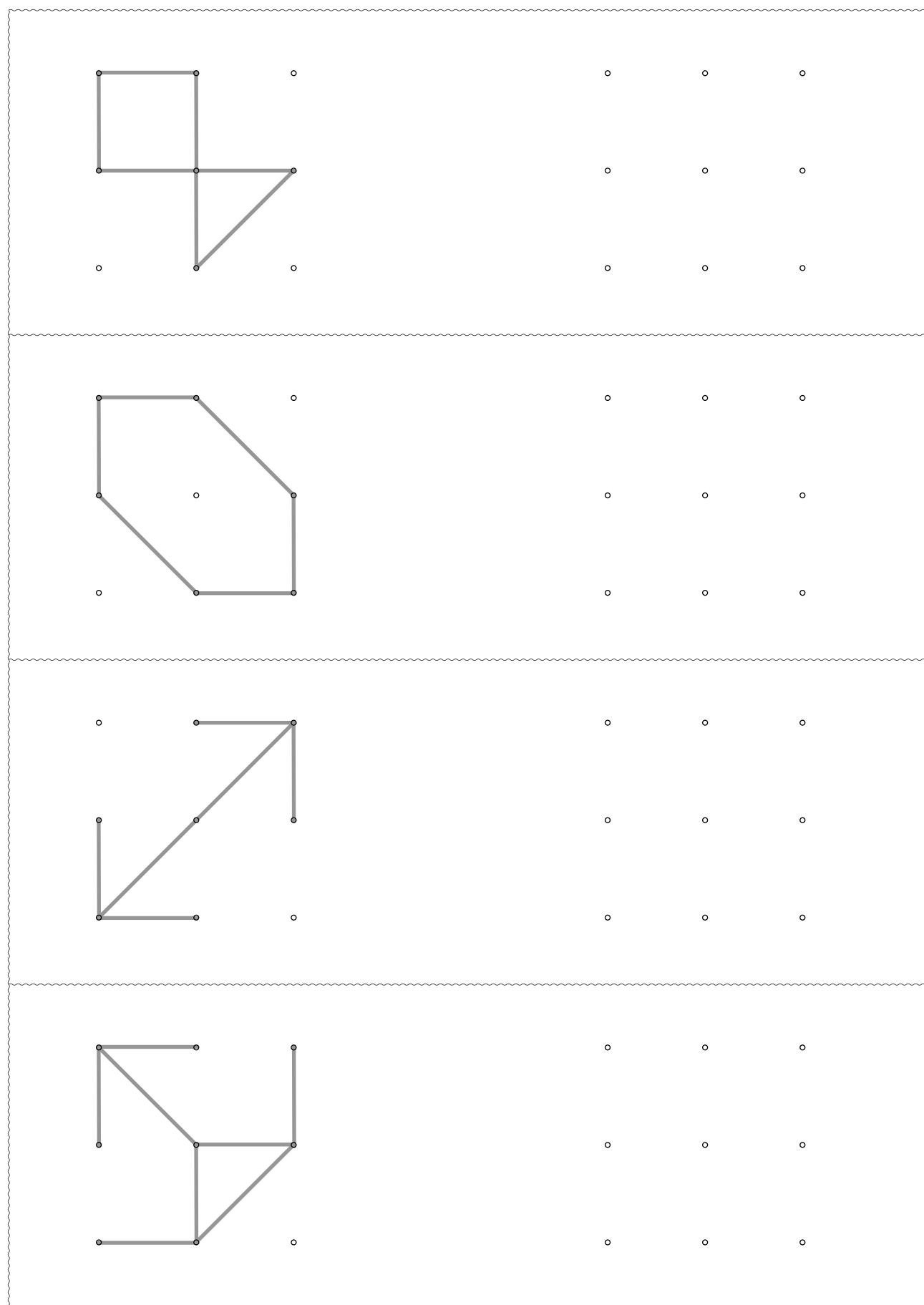
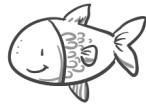
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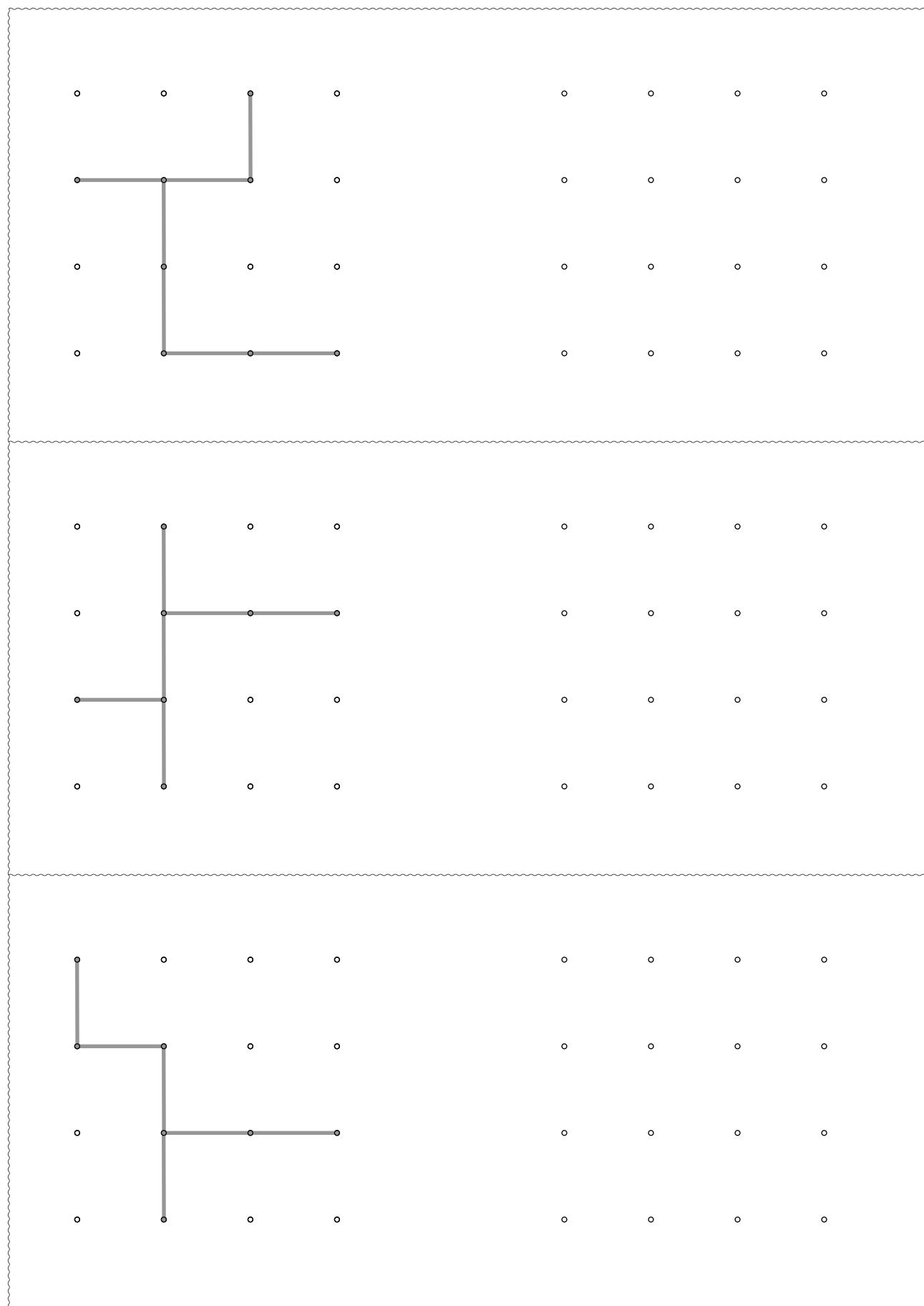
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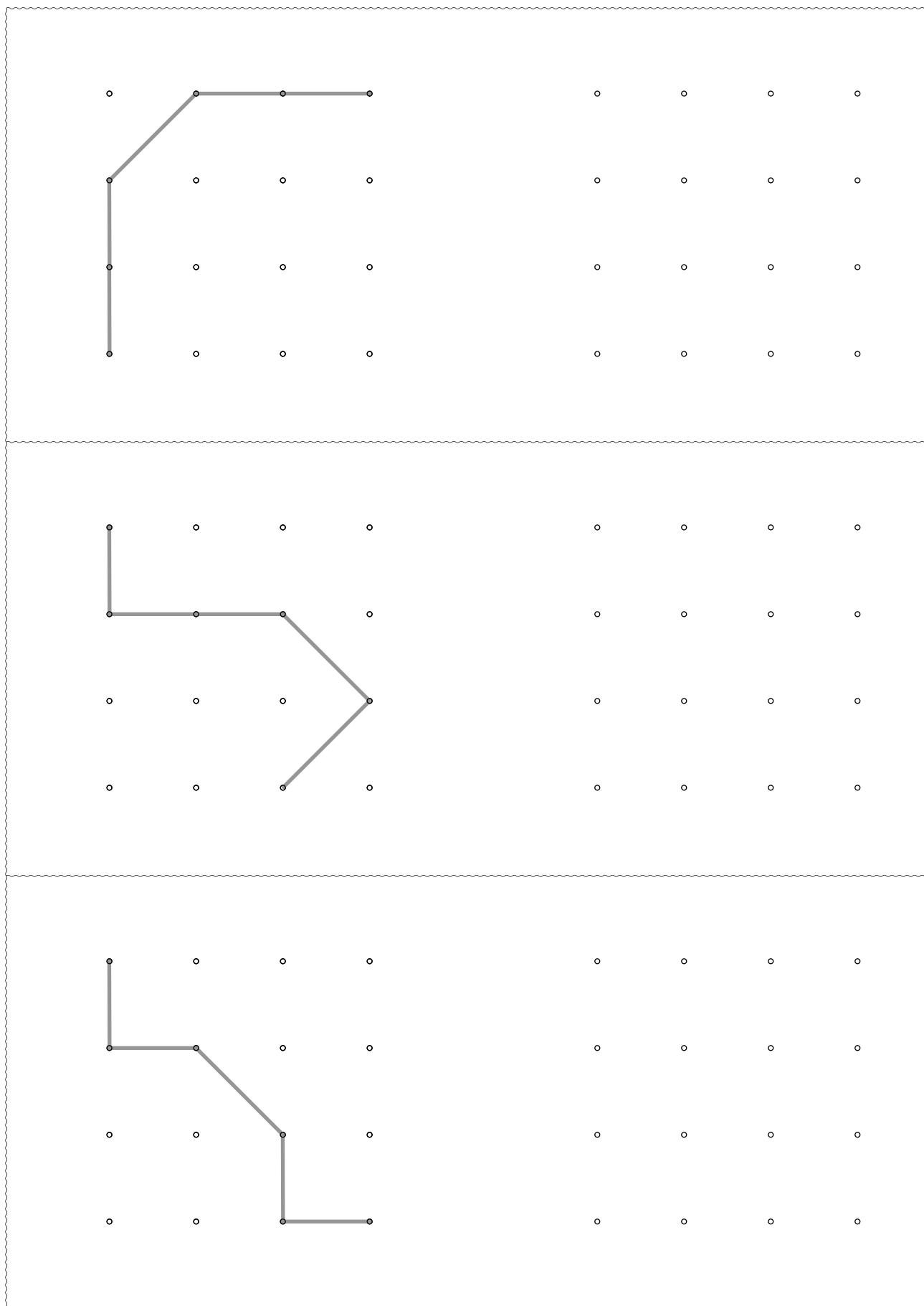
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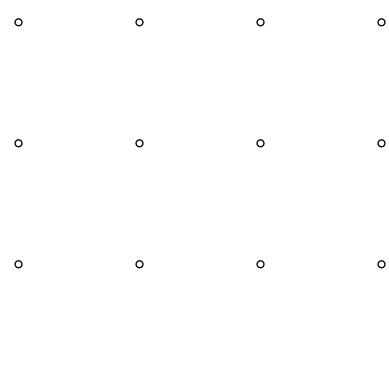
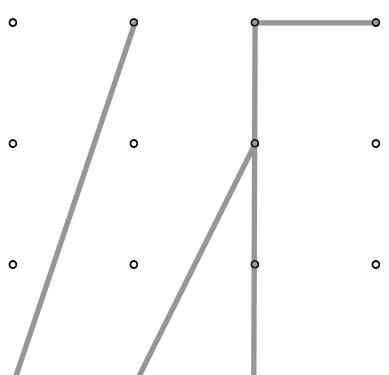
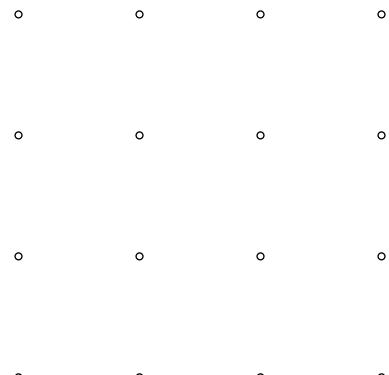
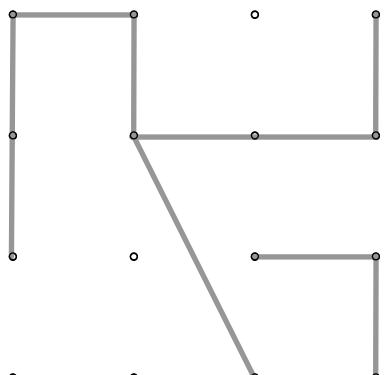
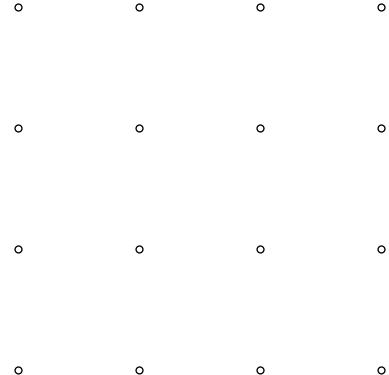
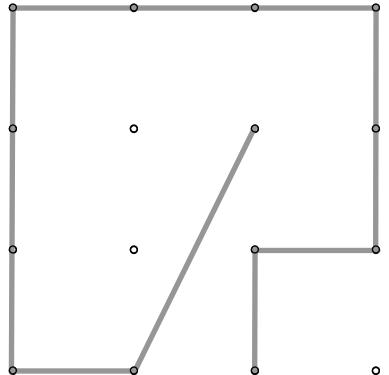
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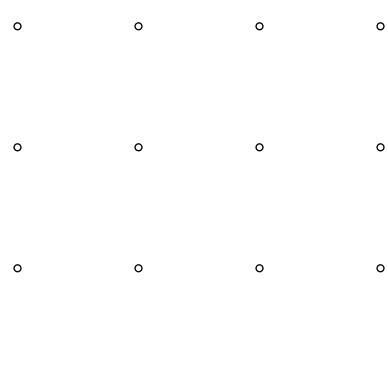
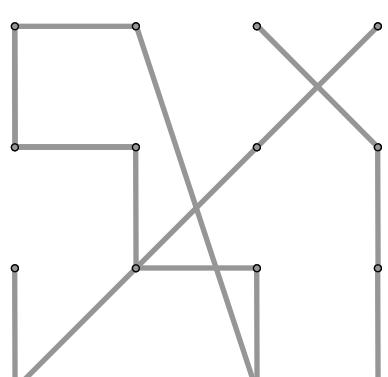
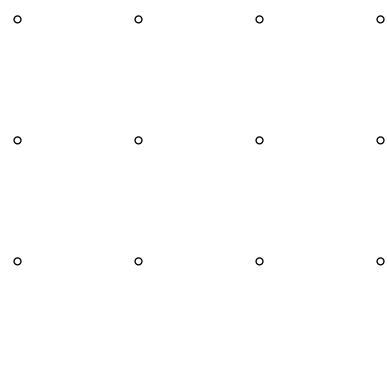
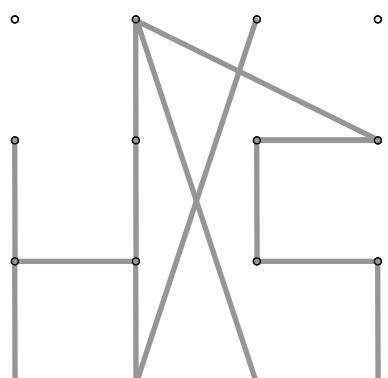
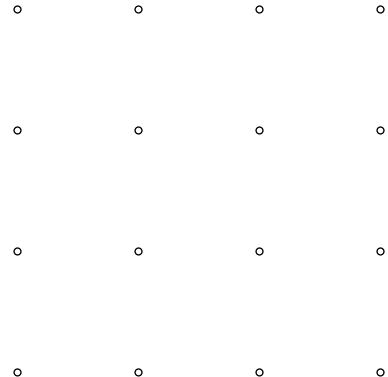
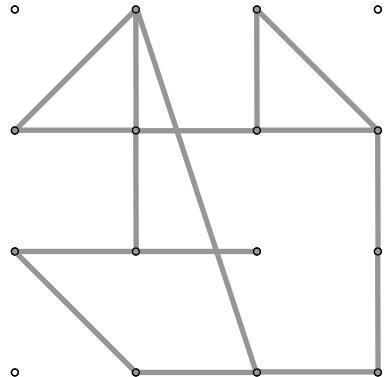
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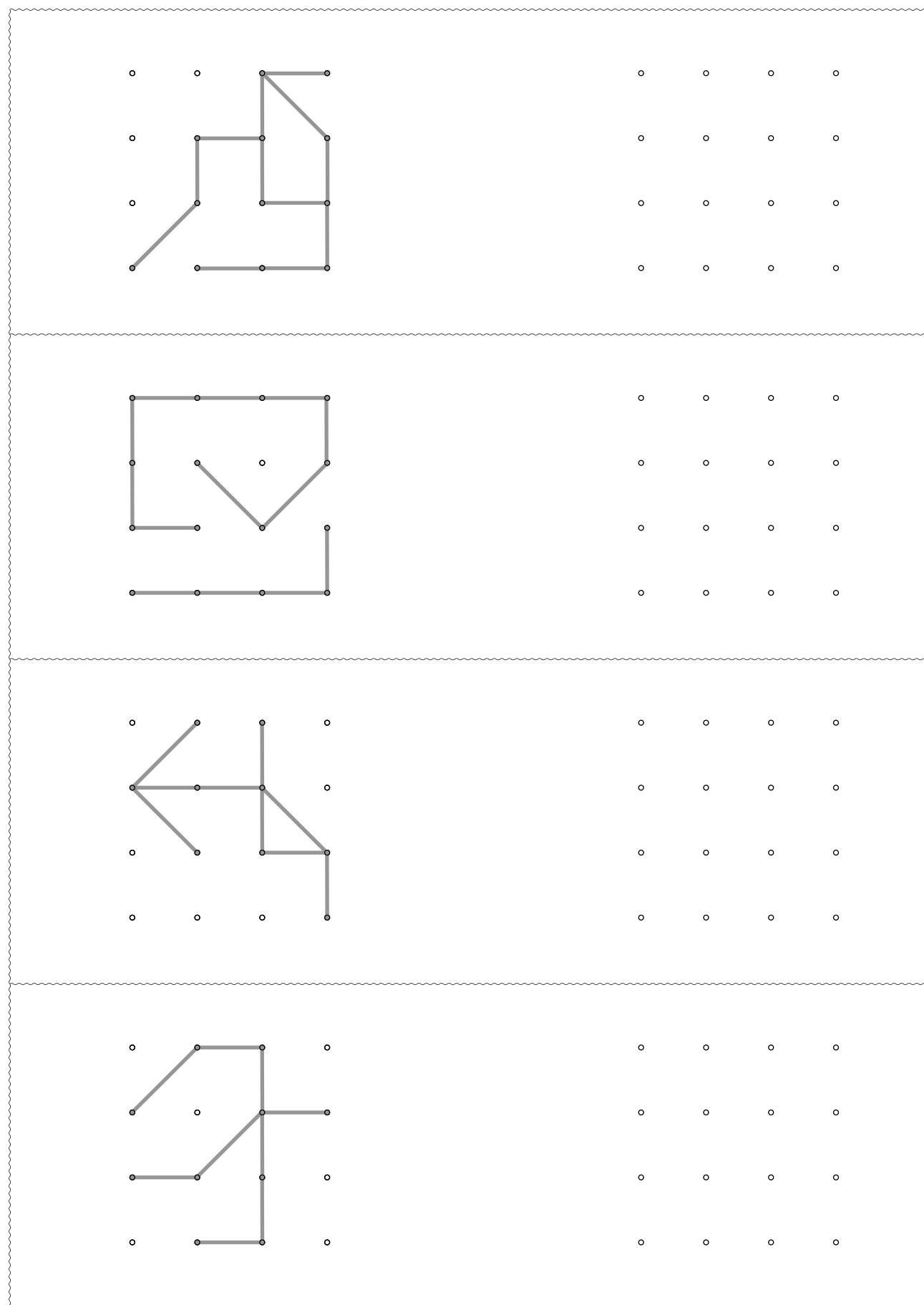
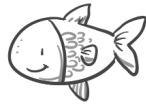
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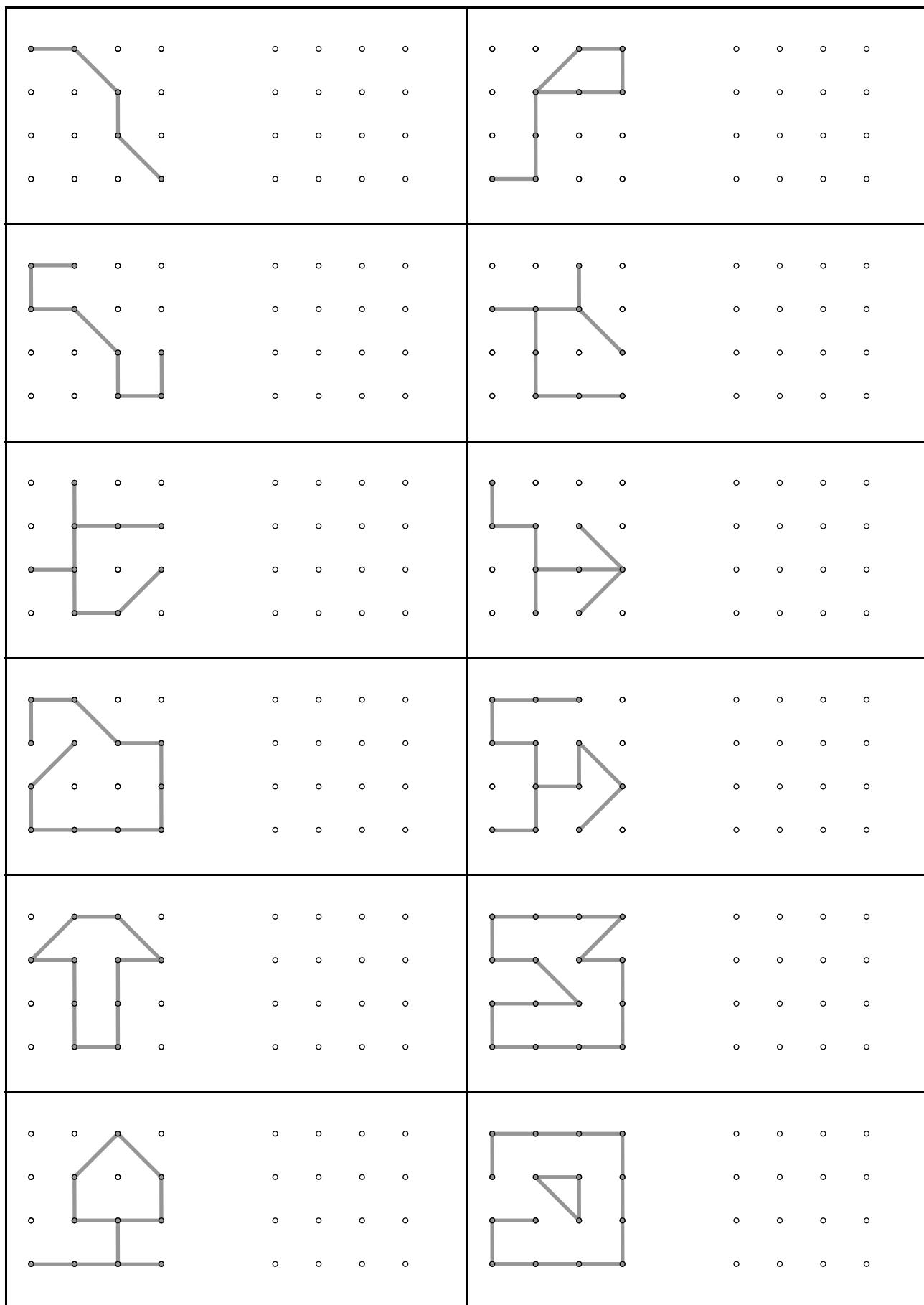
COPY THE PATTERNS.



COPY THE PATTERNS.



COPY THE PATTERNS.



About Brainscribed program

EXTENSIVE collection of activities

Brainscribed collection features thousands of worksheets with tens of thousands of challenges and activities of different types, created to stimulate the development of visual-motor integration and graphomotor skills in children. With its extensive corpus of materials, it is one of the most comprehensive collections of its kind, **globally**.

Based on BRAIN & EDUCATIONAL SCIENCE

Science fact:
Visual-motor exercises create functional connections among visual and motor regions in brains.

Science fact:
Fine motor skills, non-verbal intelligence and executive functioning are significantly interrelated.

Science fact:
Visual-motor exercises improve graphomotor skills which are important predictors of later academic achievement.

FUN and CHALLENGING activities

Brainscribed resources stimulate visual-motor integration development with countless fun and **developmentally appropriate** activities, designed to be **user friendly** both for adults working with children (easy selection of developmentally appropriate activities according to the child's current stage of visual-motor integration and skills), as well as for children (challenging activities).

Designed for EXPERTS and PARENTS

Brainscribed workbooks provide **teachers** and other **experts** (preschool, school, special education, therapy, etc.) with appropriate and gradually challenging tasks according to developmental needs of their children as well as offer **parents** developmentally appropriate and gradually challenging tasks for their children.

Activities for EVERY child ...

... and for children with DIFFICULTIES

Every child's visual motor integration and skills development can **benefit** from graphomotor / visual-motor tasks and training at home or in a classroom.

Visual-motor deficits and graphomotor difficulties can be debilitating for children. Teachers and other experts working with children with visual motor integration problems or/and with writing problems will find a plentitude of useful and engaging tasks for a **systematic intervention** in Brainscribed workbooks for children with visual-motor difficulties.

Created by EXPERTS

Dr. Kristijan Musek Lešnik (Ph.D.) - Founder and Chair of the Centre for Positive Psychology, University of Primorska, Slovenia - President of the Council of Experts for General Education of the Republic of Slovenia - past President of the Committee for the Children with Special Needs - past President of the National Testing Committee, Slovenia.

Dr. Petra Lešnik Musek (Ph.D. in Developmental Psychology) - Specialist of Clinical Psychology at the Department of Child Neurology, Paediatric Clinic of the University Clinical Centre, Ljubljana, Slovenia - combines years of experience in developmental psychology and family therapy in clinical work with children and their families.

List of Brainscribed volumes - 2025

Collection: CUTTING AND TEARING

- Volume C-1-1: CUTTING AND TEARING: HORIZONTAL AND VERTICAL LINES
- Volume C-1-2: CUTTING AND TEARING: ZIG-ZAG LINES
- Volume C-1-3: CUTTING AND TEARING: WAVY LINES
- Volume C-1-4: CUTTING AND TEARING: SPIRALS
- Volume C-1-5: CUTTING AND TEARING: FLATTENED SPIRALS

Collection: PATTERNS / FINGER GRIP

TWO TO FOUR STICKS

- Volume P-1-1: PATTERNS - STICKS: 2 STICKS - COLOURS
- Volume P-1-2: PATTERNS - STICKS: 2 STICKS - SHAPES

FIVE STICKS

- Volume P-2-1: PATTERNS - STICKS: 5 STICKS - COLOURS
- Volume P-2-2: PATTERNS - STICKS: 5 STICKS - SHAPES
- Volume P-2-3: PATTERNS - STICKS: 5 STICKS - DIFFERENCES: COLOURS
- Volume P-2-4: PATTERNS - STICKS: 5 STICKS - DIFFERENCES: SHAPES
- Volume P-2-5: PATTERNS - STICKS: 5 STICKS - DIFFERENCES: COLOURS AND SHAPES
- Volume P-2-6: PATTERNS - STICKS: 5 STICKS - SPACING

SIX STICKS

- Volume P-3-1: PATTERNS - STICKS: 6 STICKS - COLOURS
- Volume P-3-2: PATTERNS - STICKS: 6 STICKS - SHAPES
- Volume P-3-3: PATTERNS - STICKS: 6 STICKS - COMPLETING
- Volume P-3-4: PATTERNS - STICKS: 6 STICKS - SPACING
- Volume P-3-5: PATTERNS - STICKS: 6 STICKS - MIRRORING

EIGHT STICKS

- Volume P-4-1: PATTERNS - STICKS: 8 STICKS - COLOURS
- Volume P-4-2: PATTERNS - STICKS: 8 STICKS - SHAPES
- Volume P-4-3: PATTERNS - STICKS: 8 STICKS - COMPLETING
- Volume P-4-4: PATTERNS - STICKS: 8 STICKS - ORIENTATION
- Volume P-4-5: PATTERNS - STICKS: 8 STICKS - MIRRORING
- Volume P-4-6: PATTERNS - STICKS: 8 STICKS - OVERLAPPING

TEN STICKS

- Volume P-5-1: PATTERNS - STICKS: 10 STICKS - COLOURS
- Volume P-5-2: PATTERNS - STICKS: 10 STICKS - SHAPES
- Volume P-5-3A: PATTERNS - STICKS: 10 STICKS - FINDING DIFFERENCES: COLOURS 1
- Volume P-5-3B: PATTERNS - STICKS: 10 STICKS - FINDING DIFFERENCES: COLOURS 2
- Volume P-5-4A: PATTERNS - STICKS: 10 STICKS - FINDING DIFFERENCES: SHAPES 1
- Volume P-5-4B: PATTERNS - STICKS: 10 STICKS - FINDING DIFFERENCES: SHAPES 2
- Volume P-5-5: PATTERNS - STICKS: 10 STICKS - ORIENTATION
- Volume P-5-6: PATTERNS - STICKS: 10 STICKS - MIRRORING
- Volume P-5-7: PATTERNS - STICKS: 10 STICKS - OVERLAPPING
- Volume P-5-8: PATTERNS - STICKS: 10 STICKS - INTERVANNING
- Volume P-5-9: PATTERNS - STICKS: 10 STICKS - COMPLETING

3x3 GRID

- Volume P-6-1: DOTS IN A GRID: 3x3 GRID - COLOURS
- Volume P-6-2: SHAPES IN A GRID: 3x3 GRID - SHAPES
- Volume P-6-3: DOTS IN A GRID: 3x3 GRID - DIFFERENCES
- Volume P-6-4: DOTS IN A GRID: 3x3 GRID - COMPLETING
- Volume P-6-5: DOTS IN A GRID: 3X3 GRID - MIRRORING
- Volume P-6-6: SHAPES IN A GRID: 3X3 GRID - MIRRORING

4x4 GRID

- Volume P-7-1: DOTS IN A GRID: 4x4 GRID - COLOURS
- Volume P-7-2: SHAPES IN A GRID: 4x4 GRID - SHAPES
- Volume P-7-3: DOTS IN A GRID: 4x4 GRID - DIFFERENCES
- Volume P-7-4: DOTS IN A GRID: 4x4 GRID - COMPLETING
- Volume P-7-5: DOTS IN A GRID: 4X4 GRID - MIRRORING
- Volume P-7-6: SHAPES IN A GRID: 4X4 GRID - MIRRORING

Collection: GRAPHOMOTOR SKILLS

BASIC COPYING

- Volume G-1-1: BASIC COPYING: CIRCLES AND SQUARES
- Volume G-1-2: BASIC COPYING: GEOMETRIC SHAPES

TRACING SHAPES

- Volume G-2-1: TRACING SHAPES: TRACING CIRCLES
- Volume G-2-2: TRACING SHAPES: TRACING SQUARES
- Volume G-2-3: TRACING SHAPES: TRACING TRIANGLES
- Volume G-2-4: TRACING SHAPES: BASIC SHAPES
- Volume G-2-5: TRACING SHAPES: TRACING GEOMETRIC SHAPES- DIRECTION
- Volume G-2-6: TRACING SHAPES: TRACING ANGLED SHAPES
- Volume G-2-7: TRACING SHAPES: TRACING ROUNDED SHAPES
- Volume G-2-8: TRACING SHAPES: TRACING IRREGULAR SHAPES

SHAPE CONSTANCY

- Volume G-3-1: SHAPE CONSTANCY: FINISHING SHAPES -LARGE SHAPES
- Volume G-3-2: SHAPE CONSTANCY: FINISHING SHAPES - MEDIUM AND SMALL SHAPES
- Volume G-3-3: SHAPE CONSTANCY: TRACING AND FINISHING SHAPES - LARGE SHAPES
- Volume G-3-4: SHAPE CONSTANCY: TRACING AND FINISHING SHAPES - MEDIUM AND SMALL SHAPES

TRACING & CONNECTING

- Volume G-4-1: TRACING & CONNECTING: TRACING HORIZONTAL AND VERTICAL LINES
- Volume G-4-2: TRACING & CONNECTING: TRACING ZIG-ZAG LINES
- Volume G-4-3: TRACING & CONNECTING: TRACING WAVY LINES
- Volume G-4-4: TRACING & CONNECTING: TRACING STRAIGHT AND IRREGULAR LINES
- Volume G-4-5: TRACING & CONNECTING: TRACING CURVED LINES
- Volume G-4-6: TRACING & CONNECTING: CONNECTING - STRAIGHT LINES AND ANGLES
- Volume G-4-7: TRACING & CONNECTING: DRAWING LINES DOT TO DOT

SPATIAL ORGANIZATION

- Volume G-5-1: SPATIAL ORGANIZATION: CONNECTING DOTS - LINES
- Volume G-5-2: SPATIAL ORGANIZATION: CONNECTING DOTS - PATTERNS
- Volume G-5-3: SPATIAL ORGANIZATION: CONNECTING DOTS - SHAPES
- Volume G-5-4: SPATIAL ORGANIZATION: DRAWING LOOPS IN 8x8 GRID
- Volume G-5-5: SPATIAL ORGANIZATION: DRAWING LOOPS IN 12x12 GRID

CHANELLING

- Volume G-6-1: CHANELLING: STRAIGHT LINES AND ANGLES
- Volume G-6-2: CHANELLING: WAVY AND CURVED LINES
- Volume G-6-3: CHANELLING: SIMPLE CURVED LINES: NO DOTS
- Volume G-6-4: CHANELLING: COMPLEX CURVED LINES: NO DOTS
- Volume G-6-5: CHANELLING: CURVED LINES: WITH HELPING DOTS
- Volume G-6-6: CHANELLING: CHANELLING IRREGULAR SHAPES
- Volume G-6-71: CHANELLING: PATHS -10 mm WIDTH
- Volume G-6-72: CHANELLING: PATHS -6 mm WIDTH
- Volume G-6-73: CHANELLING: PATHS -4 mm WIDTH
- Volume G-6-74: CHANELLING: PATHS -2 mm WIDTH

MAZES

- Volume G-7-1: MAZES: 5 x 5 AND 6 x 6 MAZES
- Volume G-7-2: MAZES: 7 x 7 AND 8 x 8 MAZES -
- Volume G-7-3: MAZES: 9x9 AND 10x10 MAZES
- Volume G-7-4: MAZES: 12x12 MAZES
- Volume G-7-5: MAZES: 9x9 AND 11x11 ESCAPE MAZES
- Volume G-7-7: MAZES: 16x16 ESCAPE MAZES
- Volume G-7-8: MAZES: PATHS

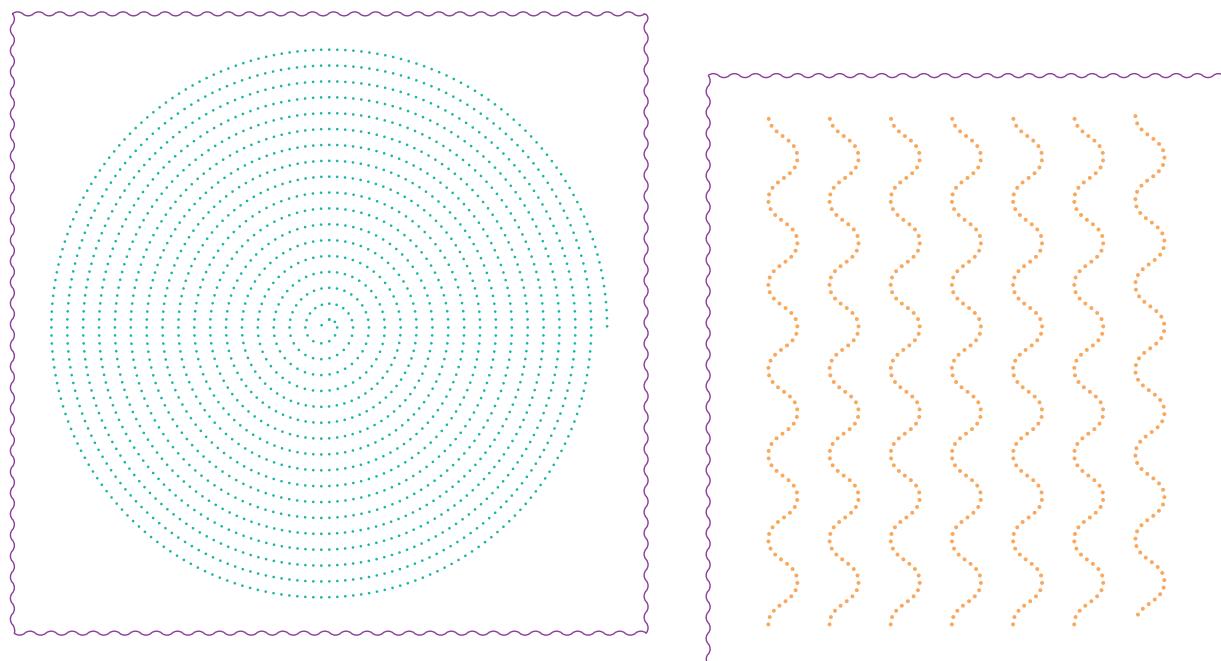
Different types of Brainscribed tasks

Brainscribed activities are organised into thematic workbooks.

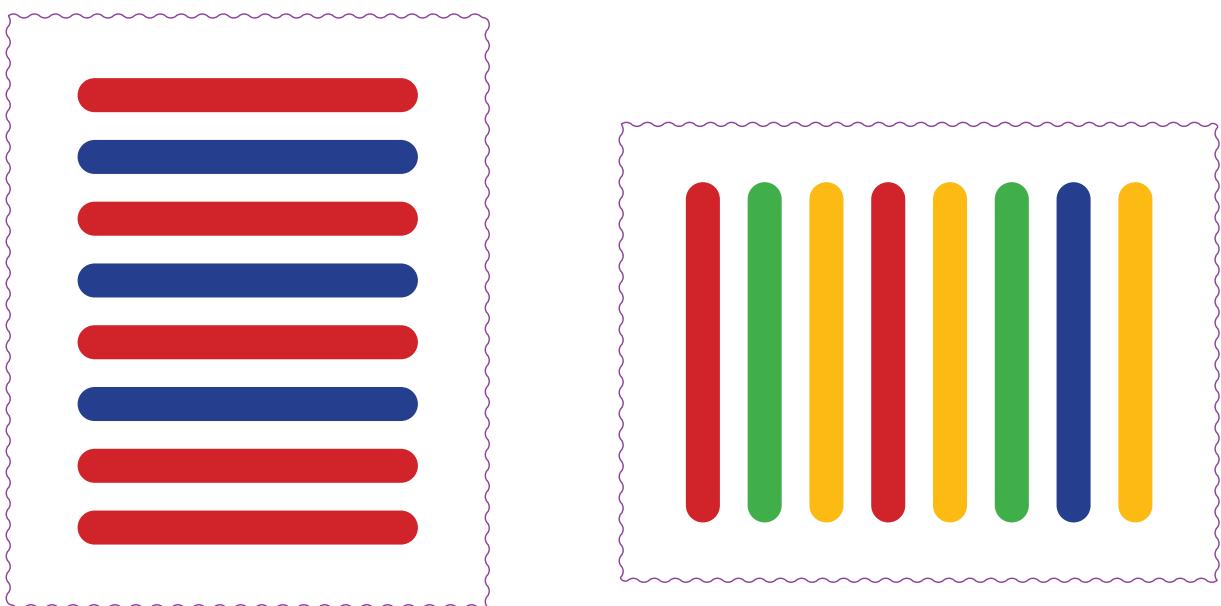
In each volume, the difficulty of the tasks gradually increases.

All Brainscribed activities are designed to stimulate visual-motor integration and the development of graphomotor and other fine-motor skills in a way that is interesting and engaging for children.

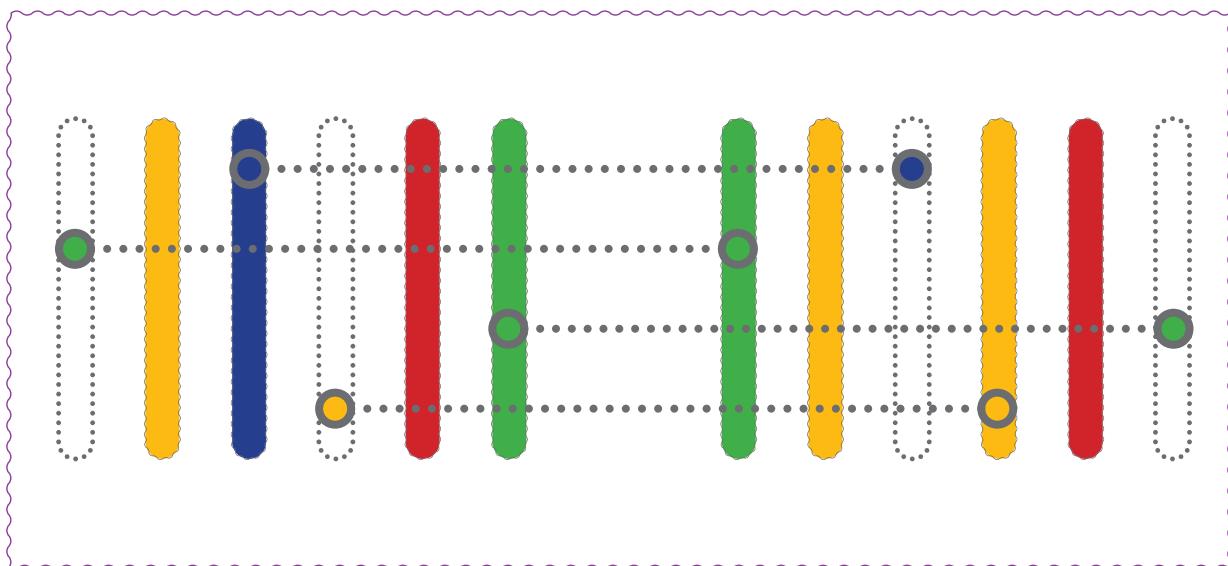
CUTTING AND TEARING ...



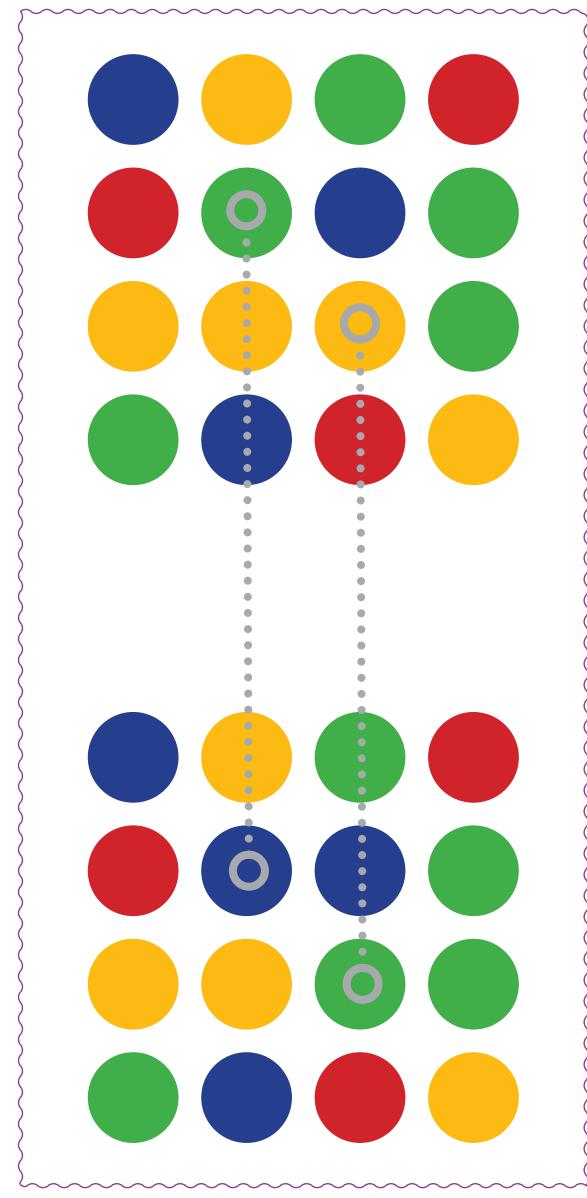
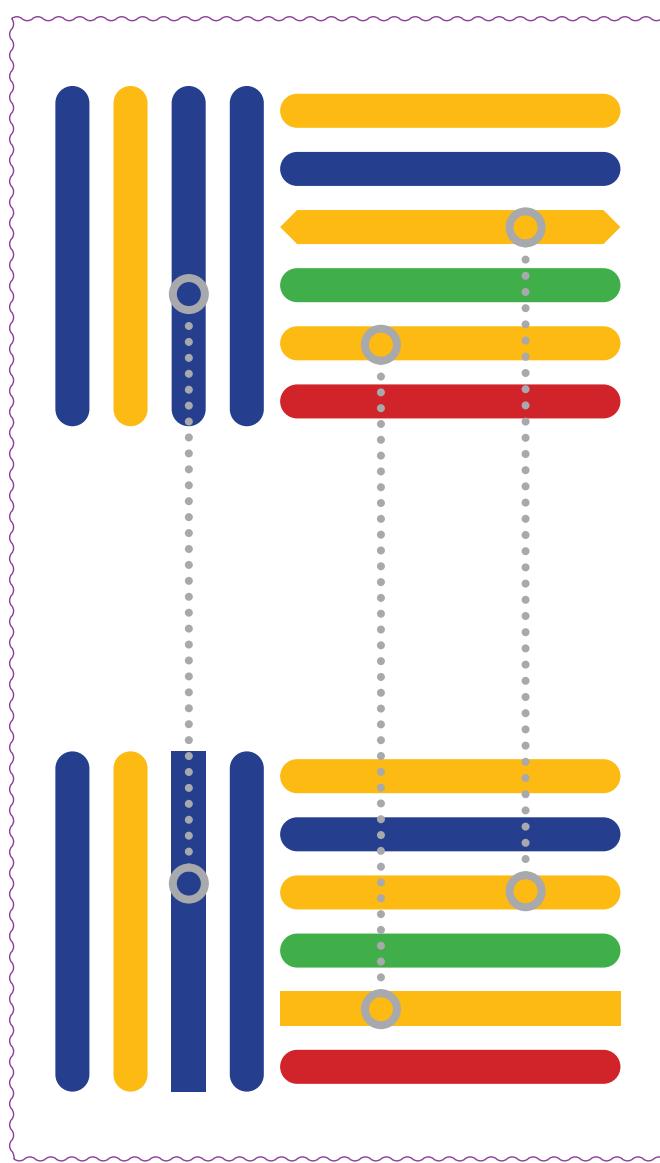
... COPYING PATTERNS ...



... COMPARING AND COMPLETING PATTERNS...



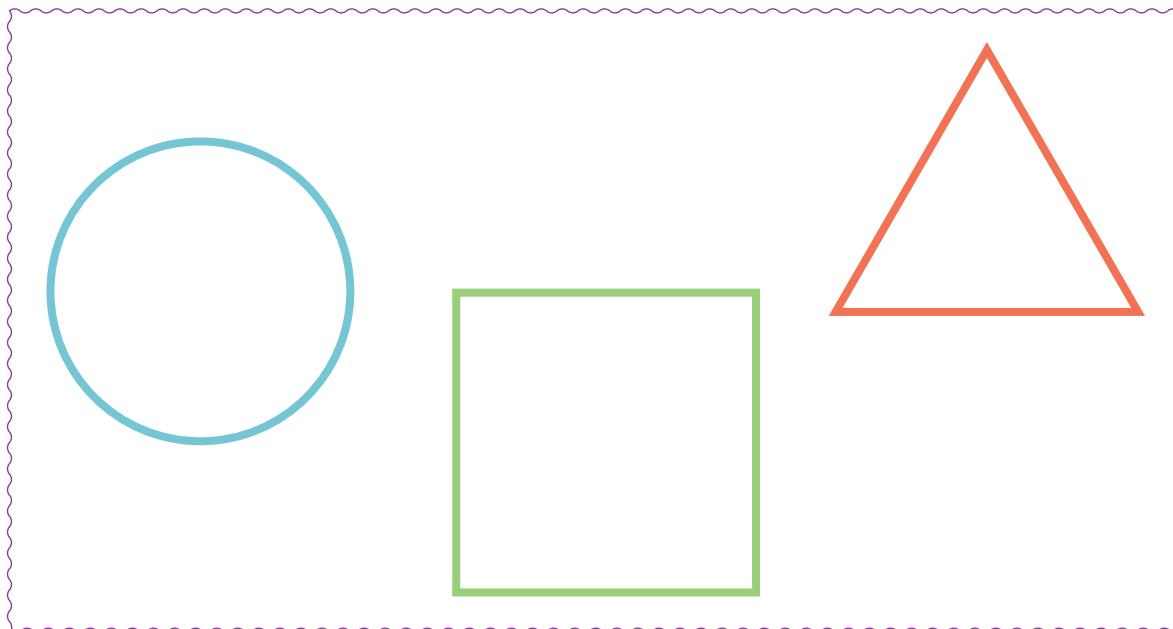
... FINDING THE DIFFERENCES ...



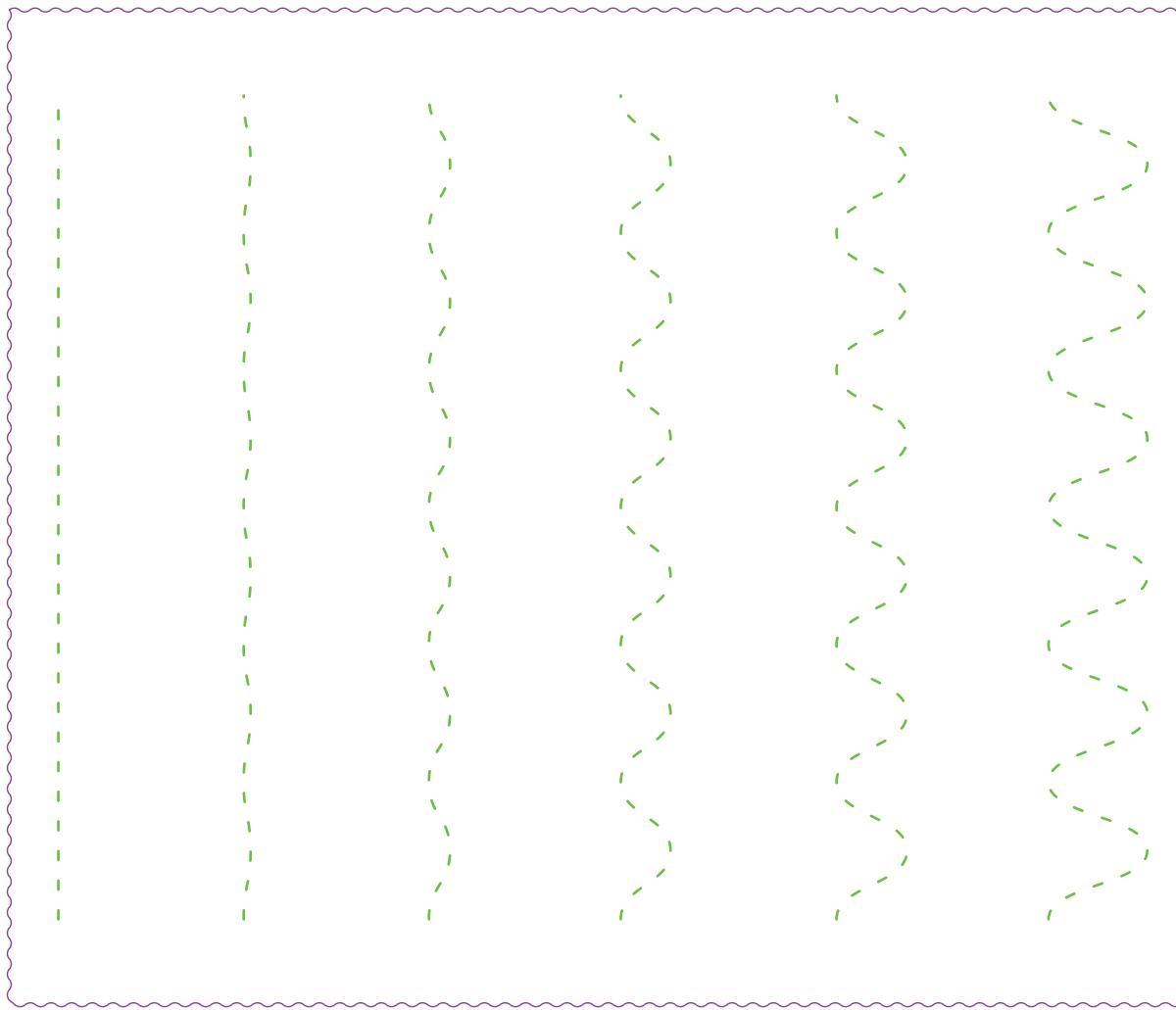
Different types of Brainscribed tasks

Different types of Brainscribed tasks

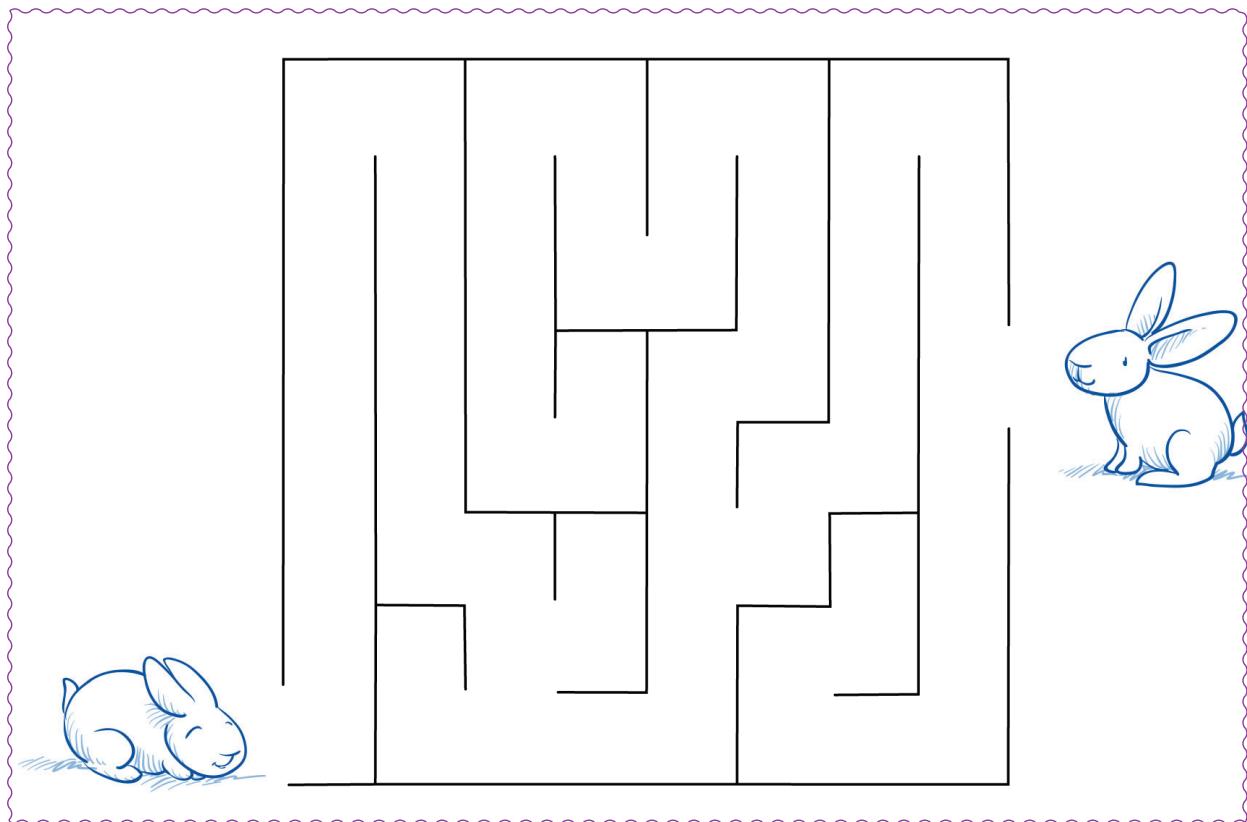
COPYING OF DIFFERENT SHAPES ...



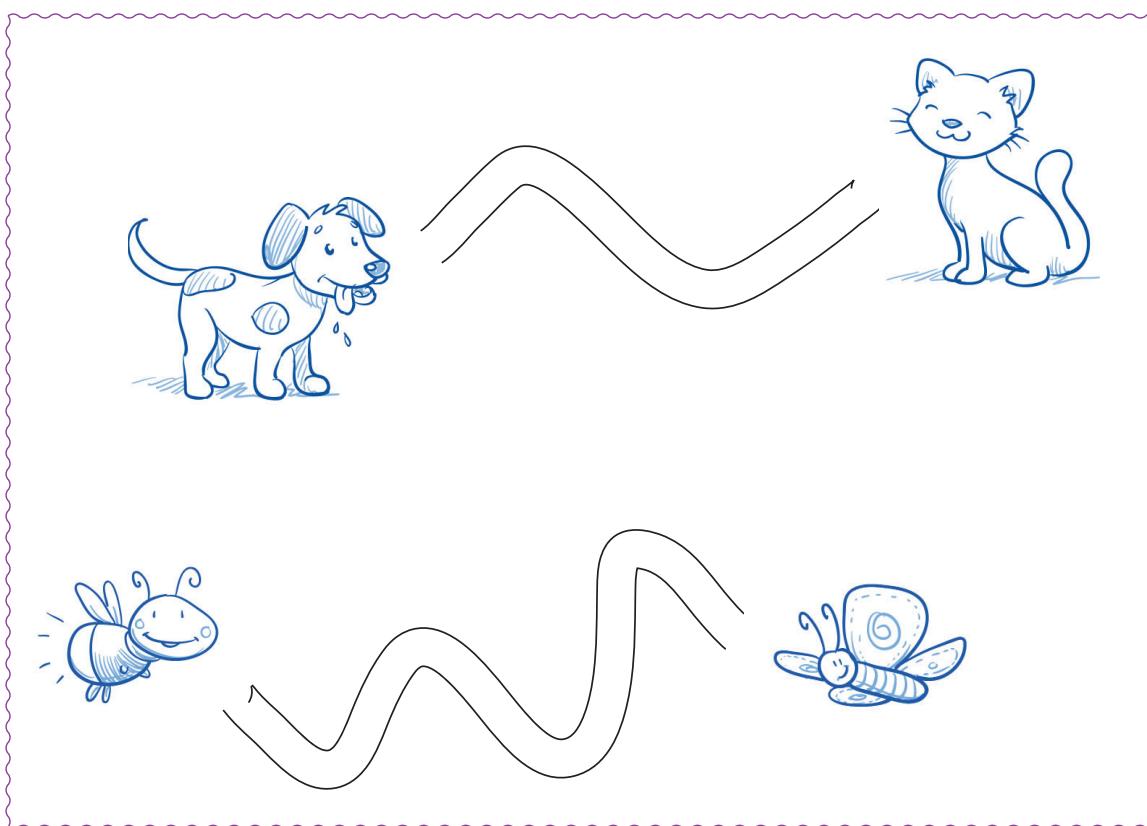
... TRACING LINES ...



... SOLVING MAZES ...



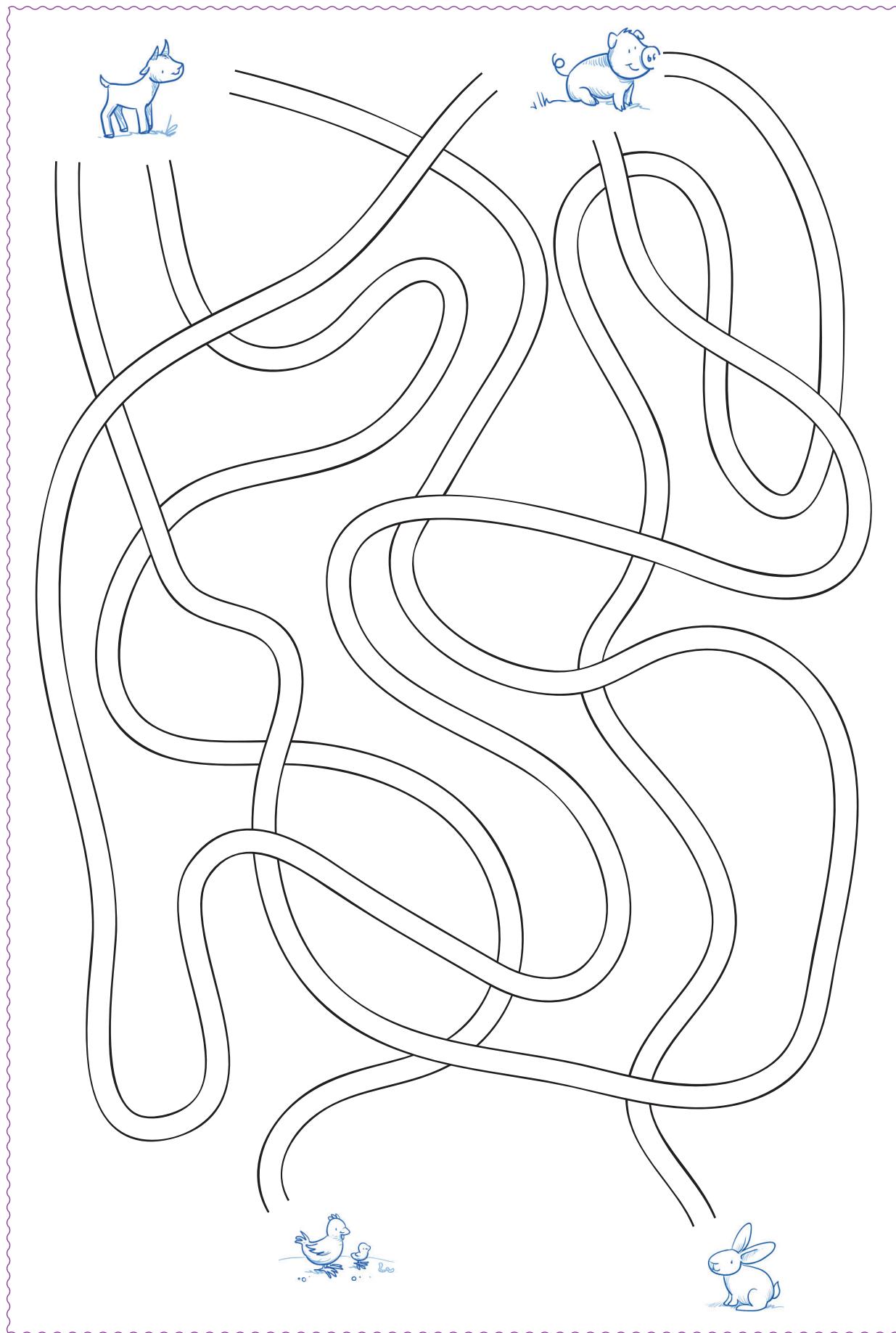
... CHANELLING - DRAWING A PATH BETWEEN TWO GUIDING LINES...



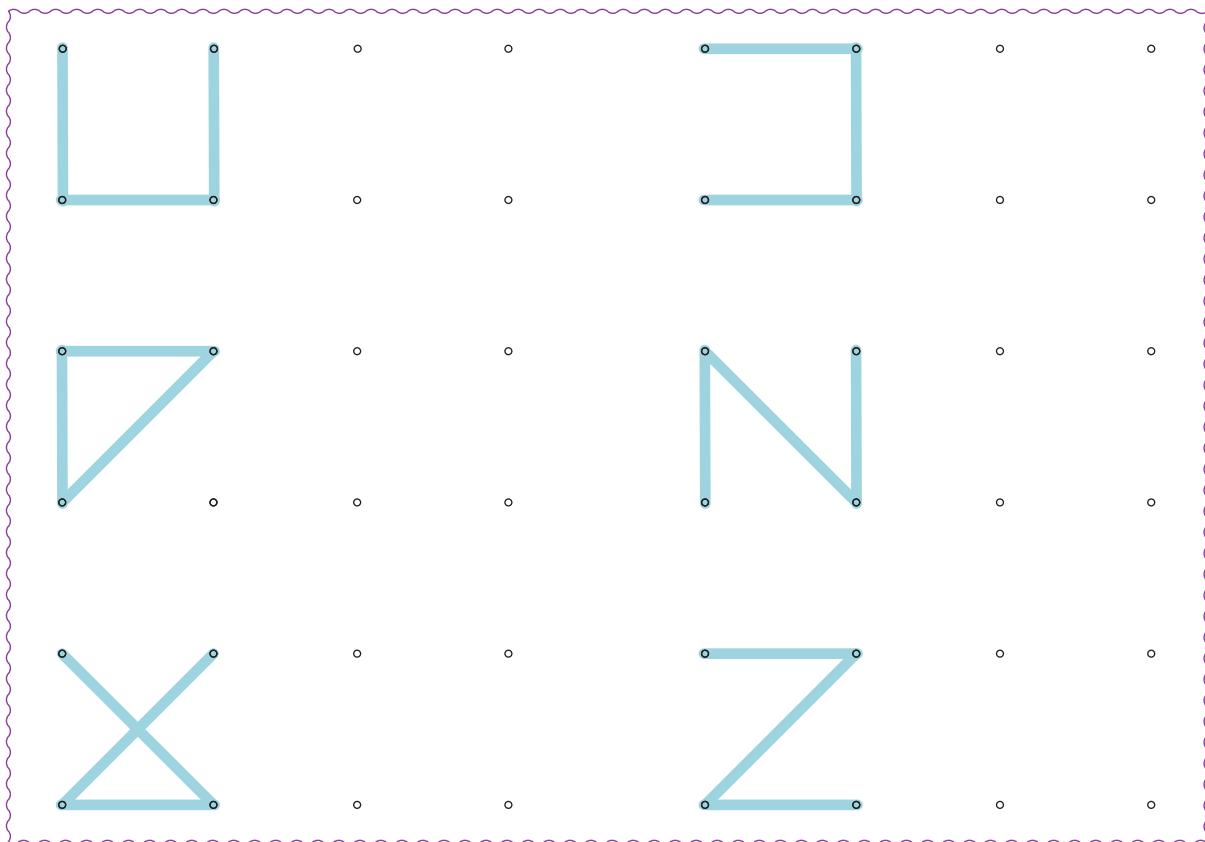
Different types of Brainscribed tasks

Different types of Brainscribed tasks

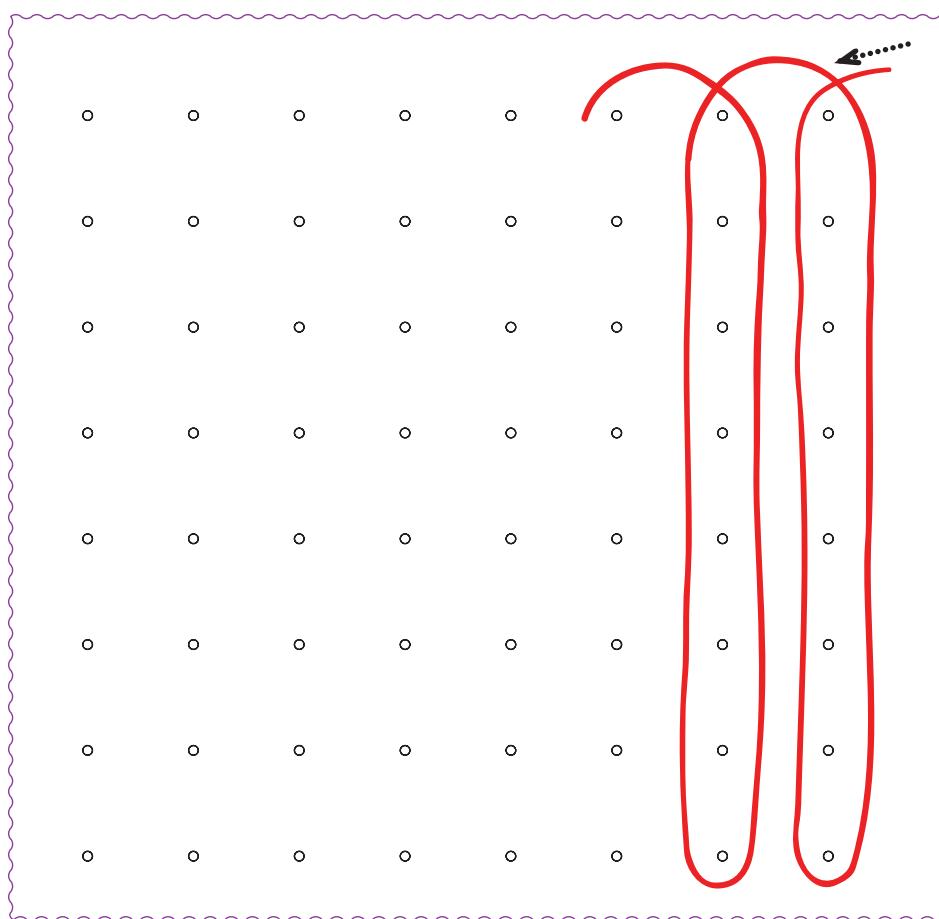
... SEARCHING AND TRACING PATHS ...



... CONNECTING DOTS ...



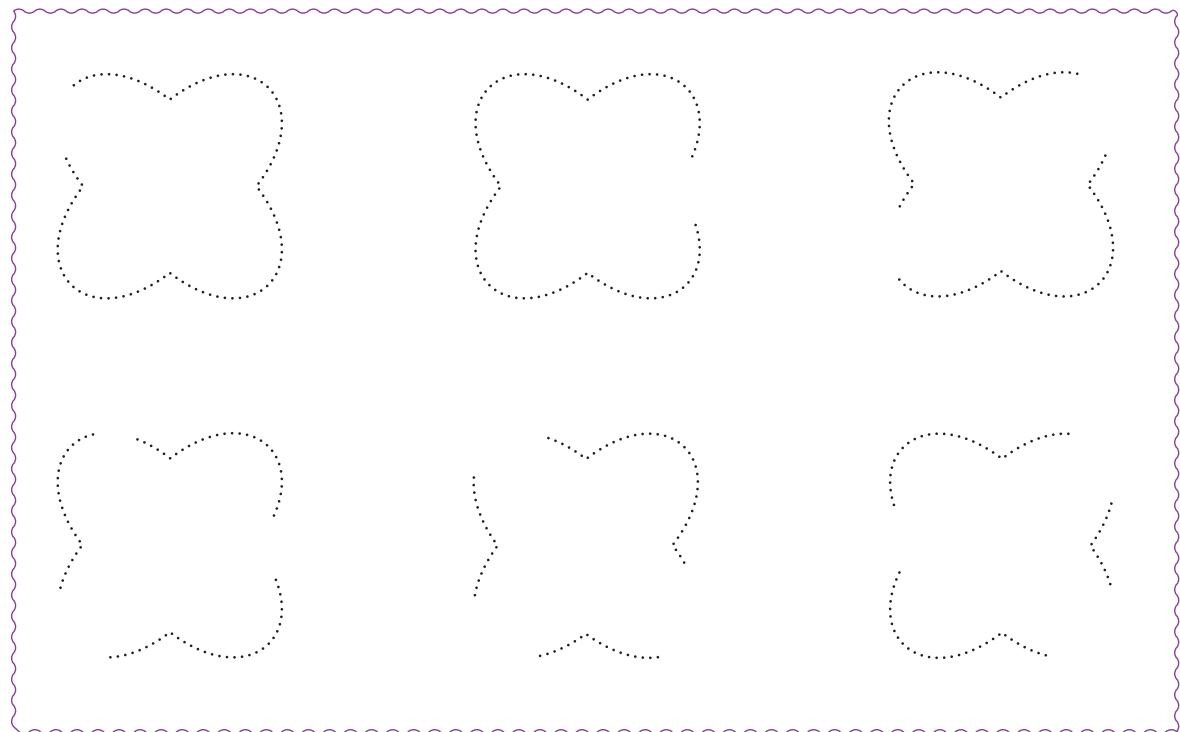
... DRAWING CURVES AND LOOPS IN A GRID...



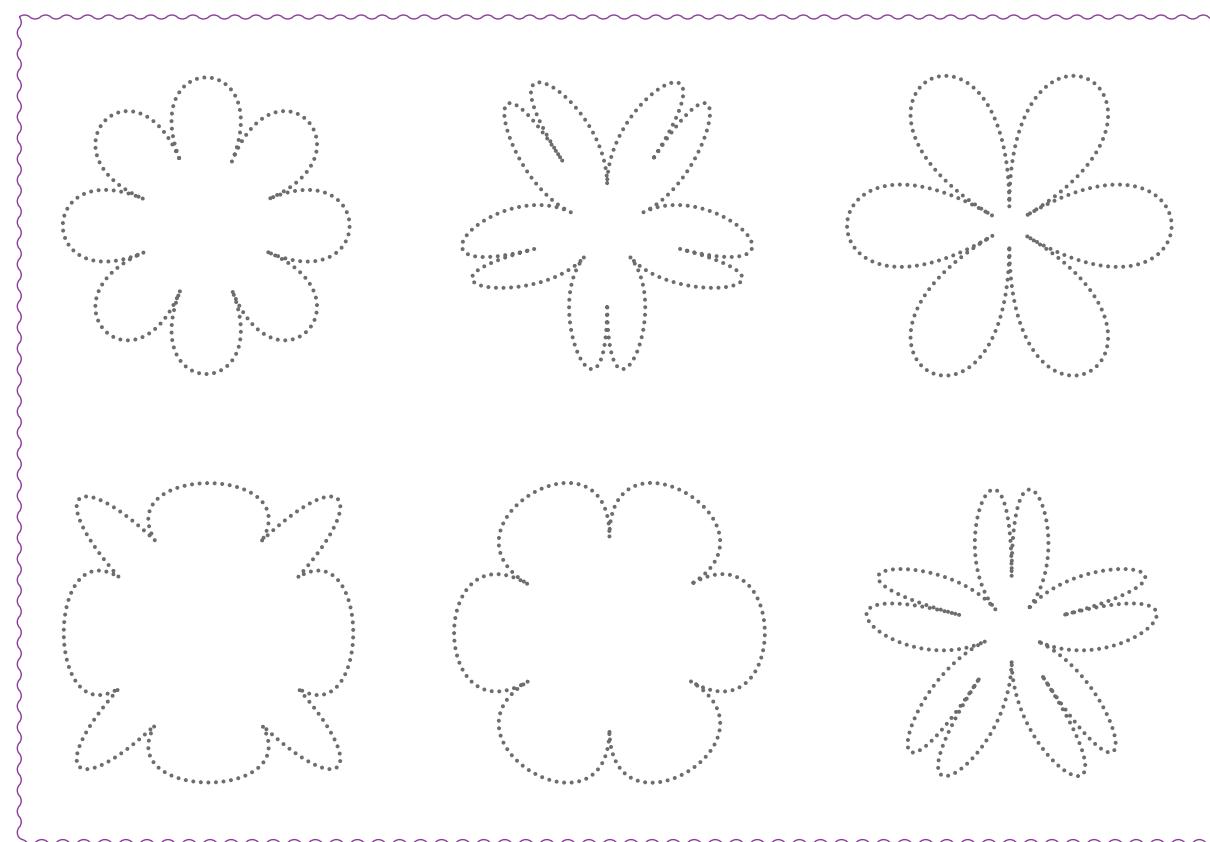
Different types of Brainscribed tasks

Different types of Brainscribed tasks

... SEARCHING AND COMPLETING SHAPES ...



... TRACING DIFFERENT SHAPES ...



... AND MANY OTHER TYPES OF EXERCISES IN THE VARIOUS BRAINSCRIBED WORKBOOKS!