Planet M

M has a fine motor skills at one's fingertips

Knowla

The Planet M contains 415 interactive activities supporting the development of fine motor skills in preschool and early school children. The graphomotor activities developed in it improve the precision and control of hand, finger and hand movements, practice the writing grip and general dexterity in moving a given object in order to perform a specific task, as well as coordinate the movement and work of both hands at the same time. By improving eye-hand coordination, they train concentration at the same time and focus on the activity at hand.

**Knowla's apps are dedicated to children from the age of 3.**

The Planet M apps include difficulty levels:
- **level 1: 3 - 4 years,**
- **level 2: 5 - 6 years**
- **level 3: 7 - 10+ years**

The age of use shown is only suggested. Each activity and its level should be selected according to the student's abilities and special educational needs (whether levelling or developing talents).

Planet M
in the Educational
Universe
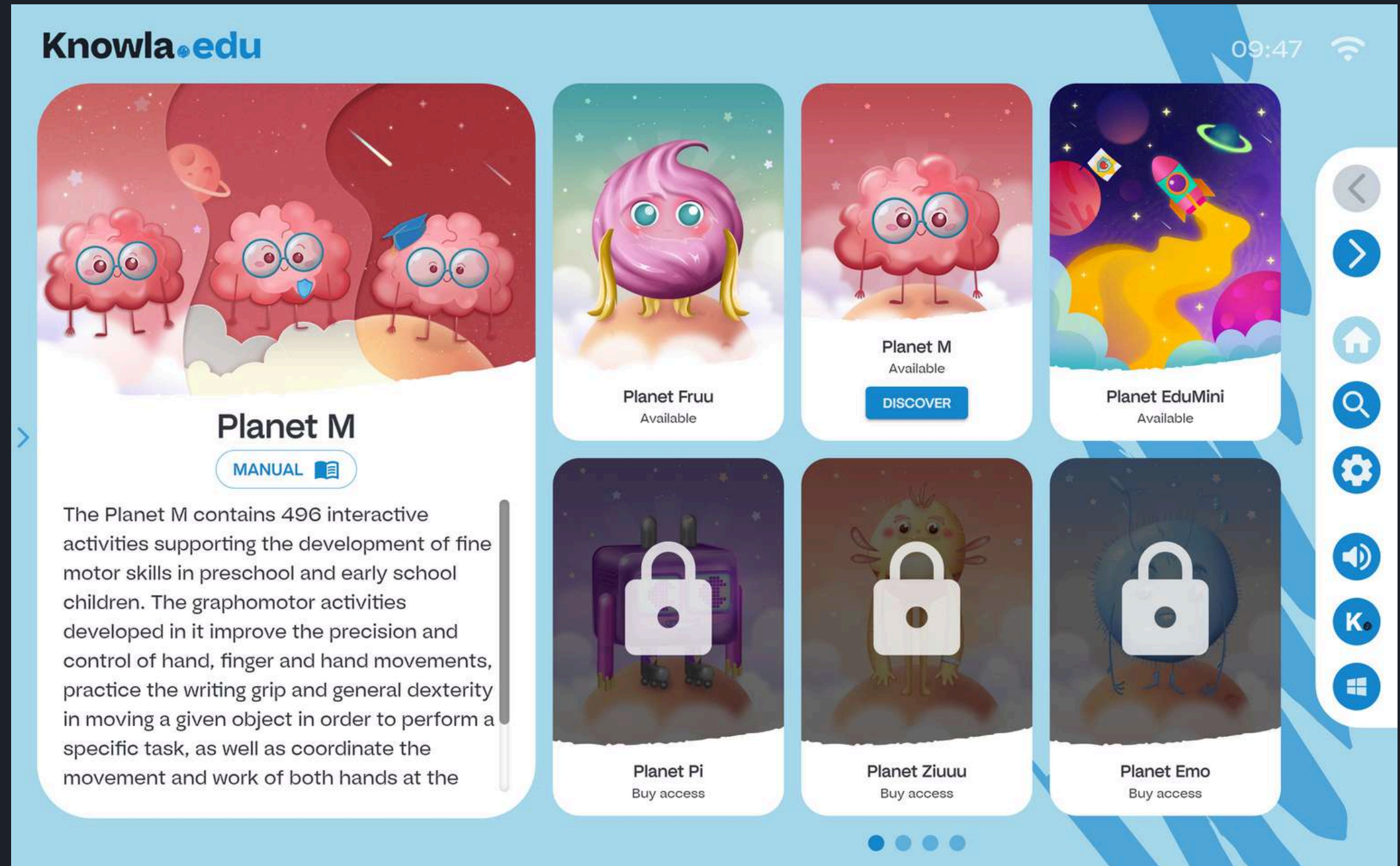
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System buttons
and menu view

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Main menu - Knowla Box/Wall

🏠 return to all planets view

◀ previous planets/apps/activities

▶ more planets/apps/activities

🔍 access to the application search engine

⚙ go to settings: language selection, license key activation, service settings

🔊 sound on/off (turning off the sound at the planet/application selection level will turn off the sound in any subsequent active activity; turning off the sound in an activity will only be active when playing in a given activity)

Ⓚ to select Knowla.fun or Knowla.edu mode

⊞ switch to windows desktop view; the application will remain active in the taskbar all the time

Main menu - Knowla Web

◁ previous planets/apps/activities
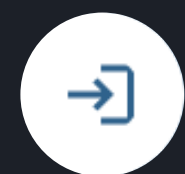
▷ more planets/apps/activities

⌂ return to all planets view

⛶ full screen mode/exit full screen mode

⚙ go to settings: language selection, license key activation

⇥ log in/register to Knowla Web

Menu icons in activities - legend

exiting the activity to the planet view (application selection); any changes made will be lost

reload activity; any changes made will be lost

sound on/off

exit to activity selection list, any changes will be lost

previous board

next board

allows changing the direction of writing the strokes, thumb points to the side (only found in activity selection)

particle effect on/off; eg in "Draw letters" disables/enables "sparkling" while typing

allows you to move the object around the board

accessibility panel (including colour adjustment)

interactive activity guide

Successful activity

Activity failed

Activity list
with quantity or time

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The Planet M includes 17 apps with 415 activities:

1. Write numbers on the trace (0 to 9) - 10 activities
2. Write letters on the trace - 26 activities
3. Trace the patterns - 15 activities
4. Colour the picture - drawing - 10 activities
5. Colour the picture - filling - 10 activities
6. Colour the letters - drawing - 26 activities
7. Colour the letters - filling - 26 activities
8. Colour the numbers - drawing - 10 activities,
9. Colour the numbers - filling - 10 activities,
10. Put together a puzzle - 3 levels, 60 activities
11. Play dominoes - 3 levels, 3 activities
12. Go through the maze - 3 levels, 3 activities
13. Solve sudoku - 3 activities
14. Look for letters - 2 levels, 52 activities
15. Look for small letters - 2 levels, 52 activities
16. Look for capital letters - 2 levels, 52 activities
17. Look for numbers - 2 levels, 20 activities

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Write numbers, letters on trace and trace the patterns

There is a given number, letter or set of patterns on the active field. The participant's task is to reconstruct the trace in the correct direction of writing/drawing. The correct performance of the activity consists in recreating a given shape, trace in accordance with the indicated direction of writing/drawing. From time to time, an animation is activated that shows the right direction of action. You have to be precise, be careful to pull each line to the end. Once the pattern is filled, it fills with "magic crystals". They are movable. When you drag pen/cursor next to them, they will move around that space, allowing you to continue to scatter them around the activity canvas. This option can be disabled in the side panel.

Activity in education:

The activity trains and controls fine motor skills while drawing patterns and writing letters and numbers. In addition, it also watches over the order in which characters are drawn.
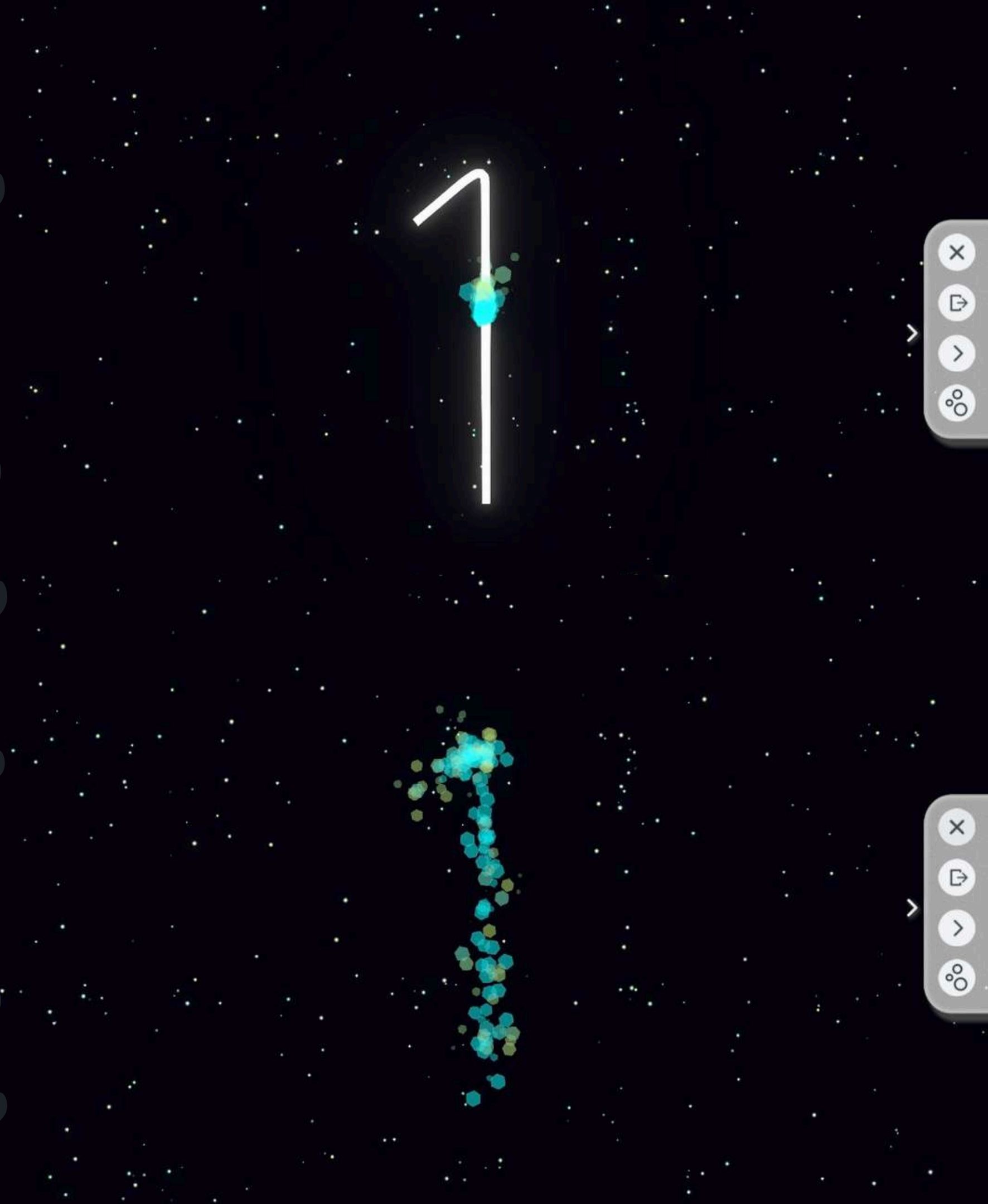
Colour the picture, letters and numbers - drawing or filling version

Legend:

handle - a colour palette with painting accessories
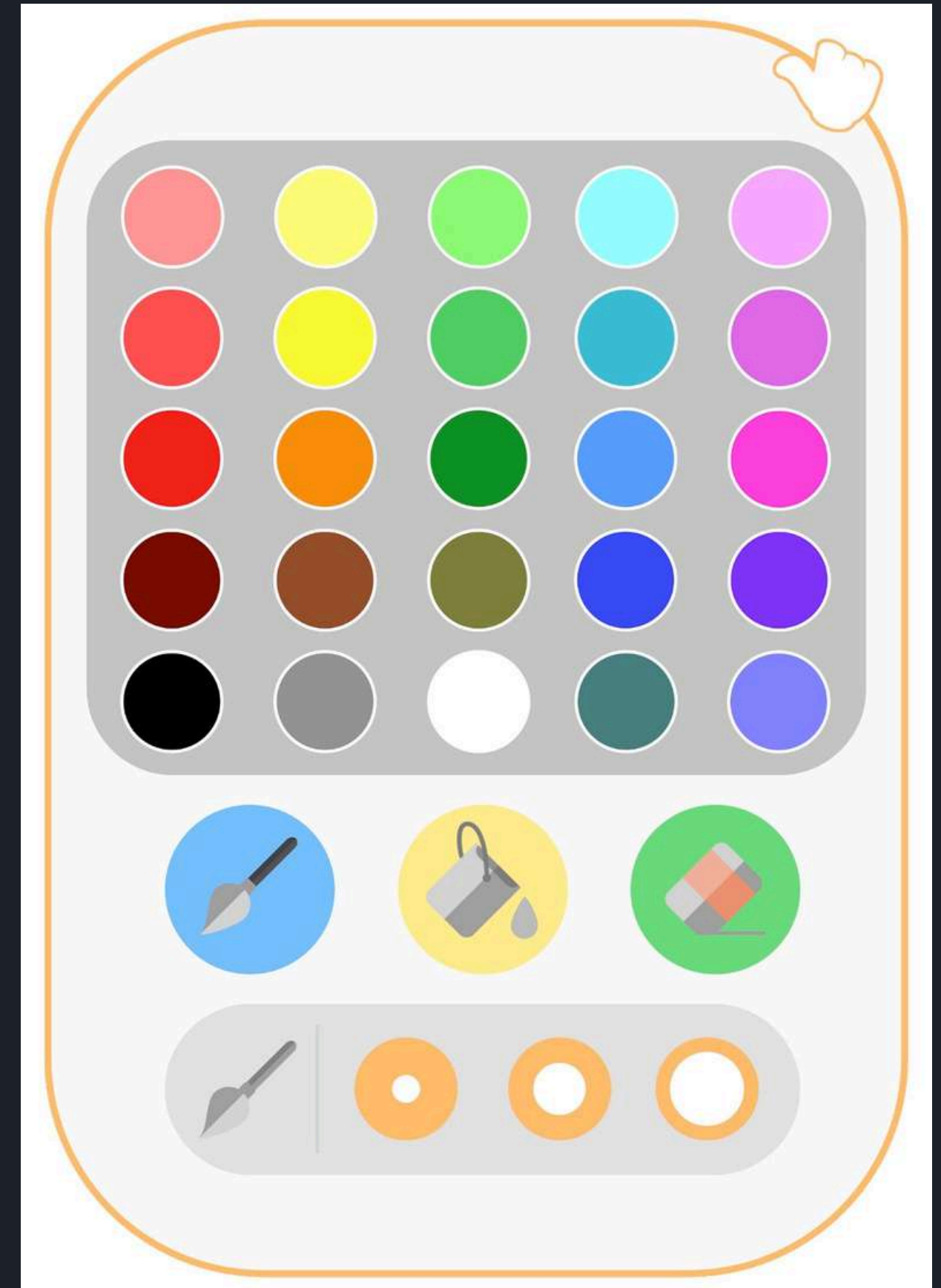
can be placed at any point in the field

brush - freehand colouring

eraser - colour removal

bucket - fill with colour

size - selection of brush or eraser thickness

colours - colour selection

Colour the picture, letters and numbers - drawing version

The activity refers to the traditional colouring book. From the side menu, select the colour, the size of the drawing trace, the symbol of the eraser, which works like a classic eraser. After choosing the size of the drawing trace and colour, the child fills in the colouring book, drawing as if he were doing it on paper. The lines of the colouring book can be painted over with colour. The activity includes examples of thematic drawings as well as those depicting letters and numbers. During colouring, it is worth controlling and correcting the correct grip of the pen by the child. Both the menu and the colouring book can be moved by grabbing the paws.

Activity in education:

The activity trains fine motor skills while having fun
in colouring. The mechanics of the activity refer to the traditional colouring book, so the so-called "going out of line" is not considered a bug. Traces outside the given shape are visible
in the drawing, the child can correct any mistakes with an eraser. In addition, activity, in the case of colouring books with letters or numbers, can be used to repeat and consolidate the material.

Colour the picture, letters and numbers - filling version

The activity refers to the traditional colouring book in digital versions. Instead of drawing, fill the shape with a given colour here. Instead of a brush symbol, there is a paint container symbol. The selected colour is selected, and then presses on the given field. After a while it will fill with the given colour. An activity dedicated to younger children who learn how to grip the pen correctly. Both the menu and the colouring book can be moved by grabbing the paws.

Activity in education:

Colouring pages exercise imagination, creativity and self-expression. In addition, in the case of coloring books with letters or numbers, they can be used to tame the shape of a given letter or number, as well as support the consolidation of related material with letters and numbers.
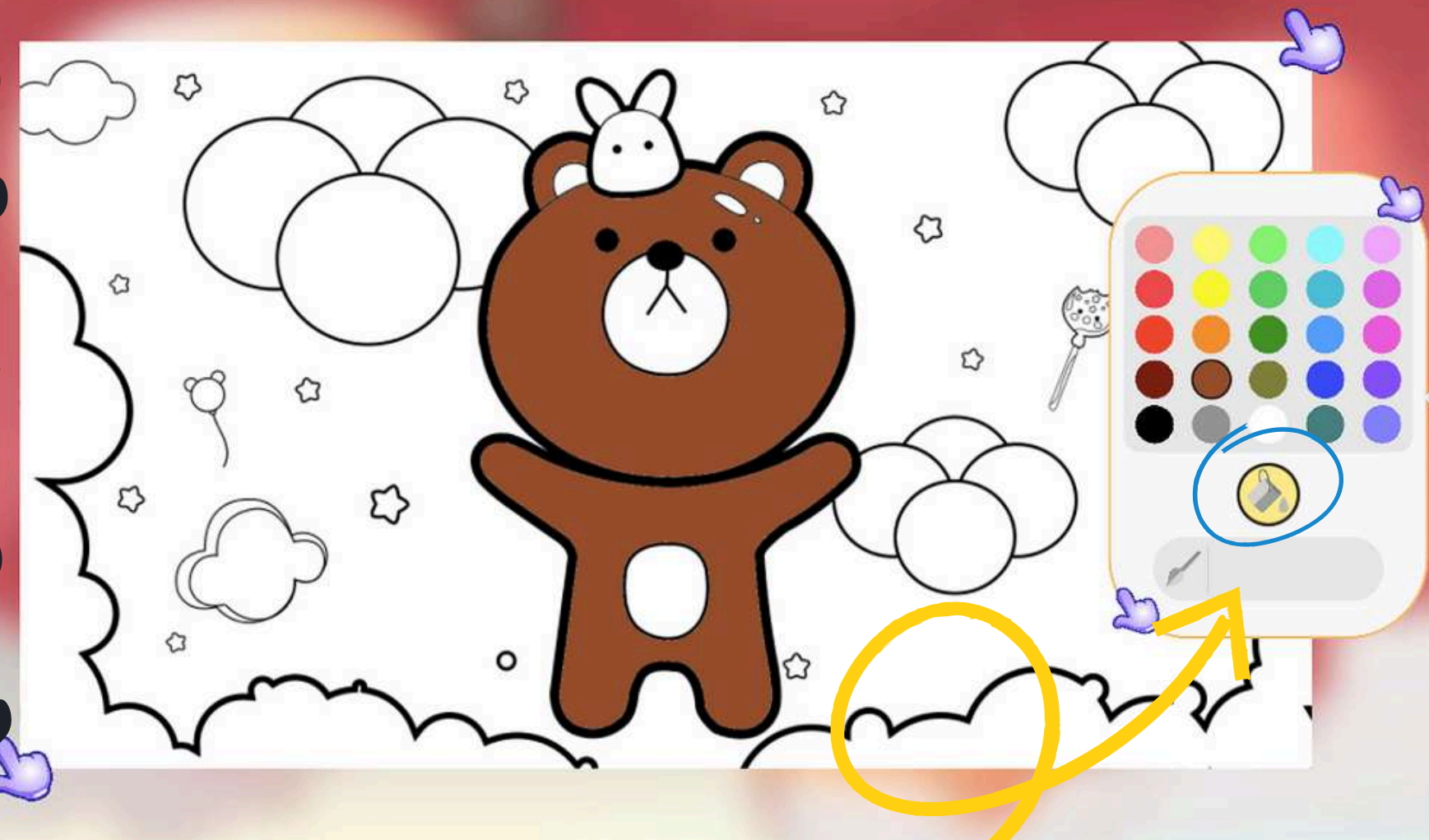
Put together a puzzle

After starting an activity, the activity selection window appears with puzzles. The windows are numbered. After selecting a given number, a picture is displayed. The child can get acquainted in unlimited time with the items in the picture. There is a play button under the picture. After clicking the play button, the picture breaks down into puzzle pieces. Dots appear on the field, which suggest where to drag the puzzle. If there is a problem with arranging a puzzle, there is no action on the board, every now and then a hint appears in the puzzle area, what the picture to be solved looks like. A correctly placed puzzle on a dot no longer changes its position. A badly arranged puzzle remains mobile. The activity is successful when the picture is placed correctly.

Activity in education:

Solving puzzles is conducive to practicing the precision of body movements, and thus fine motor skills, responsible for accurate and precise movements. In addition, puzzles train perceptiveness and memory. Effective search among the available elements is essential. It is also important to remember where an element is located. they allow to practice logical reasoning, for example where applicable continuation of a line or color on adjacent puzzle pieces. The activity also supports color and shape recognition. It is also worth noting that children focus, persevere, and be creative in searching for possible solutions.

Play dominoes

The activity refers to the classic domino. The differentiating elements are the color of the dice and the number of dominoes on the dice. At the top of the board, a domino is displayed, to which you have to add another one. There are dominoes to choose from below. Each of the cubes to choose from can be rotated with the arrow button above the cube. The dice are set by matching the number of meshes (left side of the dice at the top, right side of the dice at the bottom). It is also important to match the cubes in terms of color.

If you press the wrong cube or a wrongly rotated cube, it returns to its place, then you can try to solve the domino chain again. After the correct arrangement of the cube, all the cubes at the bottom are drawn again, and the previously placed cube becomes the one to which the next one must be matched.

At the top of the board, the number of dice required to be solved is indicated (this number varies depending on the selected level). The activity ends when the string of the specified length is correctly arranged.

Activity in education:

It supports fine motor skills, cause-and-effect thinking, linking of objects according to a given feature, such as in this case the correct number of dots and colour.
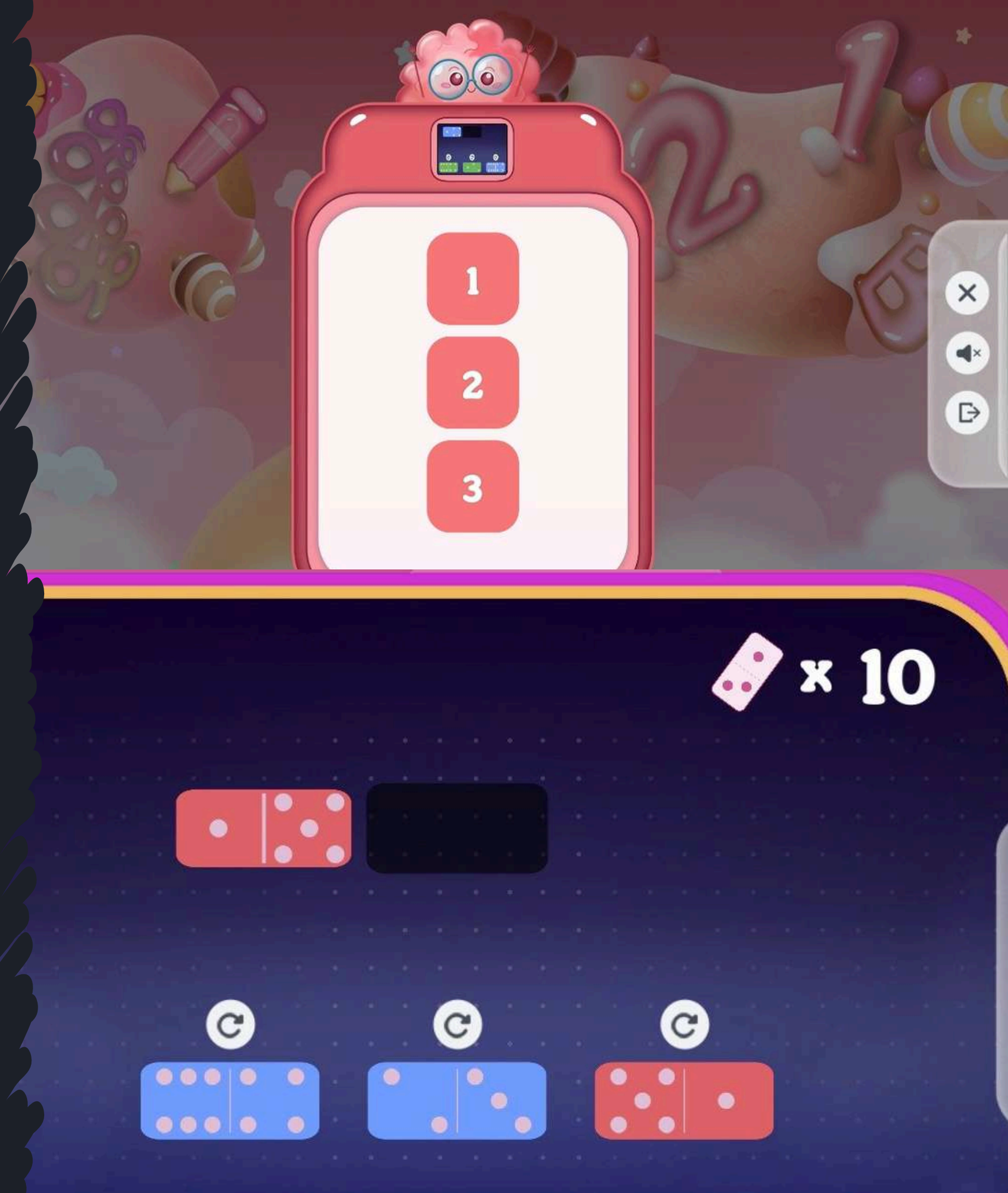
Go through the maze

Legend:

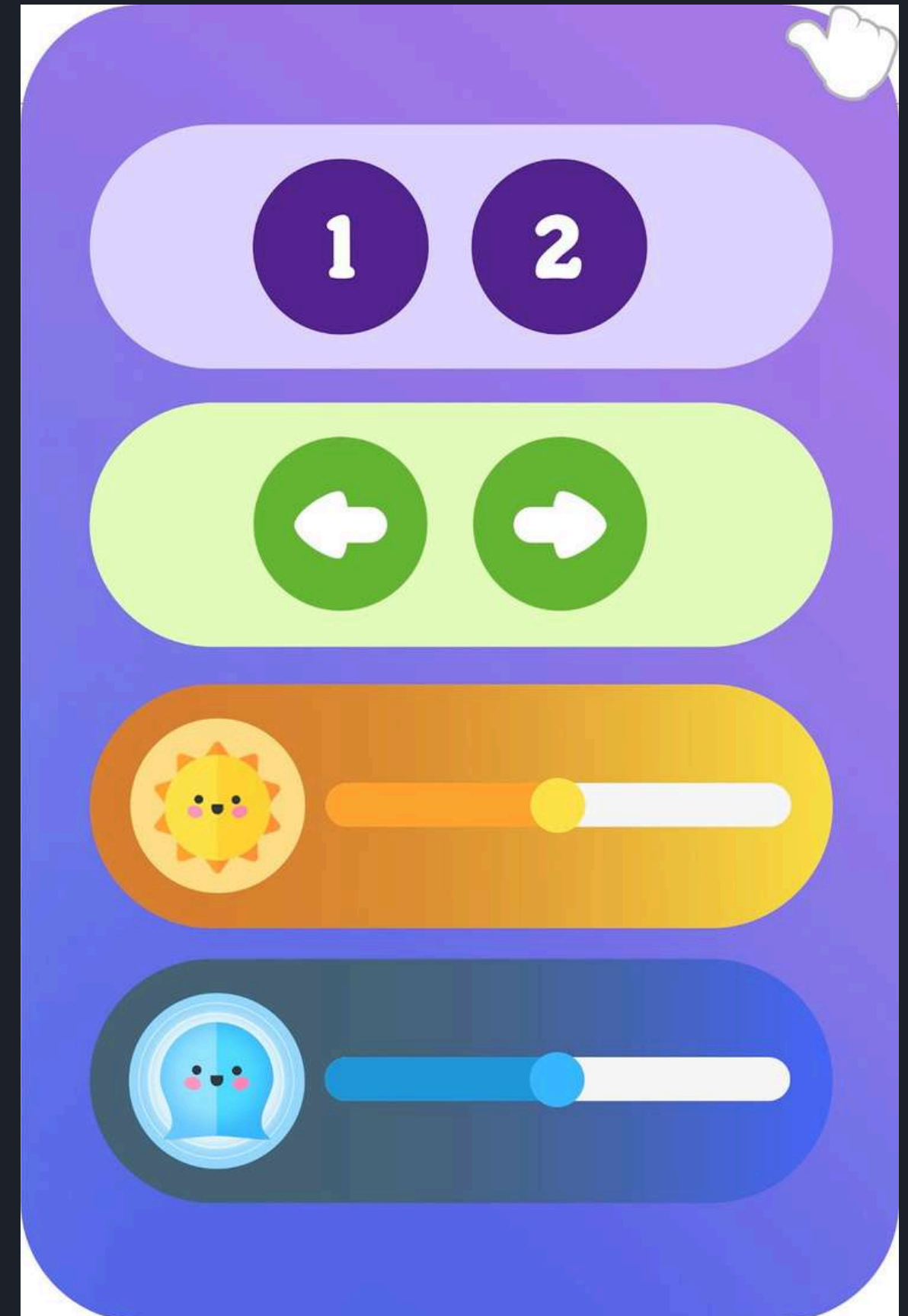handle - the panel can be placed at any point in the field
1 - image in 3D
2 - image in 2D
arrows - map rotation
sun - the brightness of the whole map
firefly - the power of the firefly spinning around the character

Go through the maze

The task of the participant is to lead the creature to the purple goal, i.e. to pass the maze. To do this, press anywhere in the corridor of the maze, and then the firefly will move in the indicated direction. The creature will follow the firefly. The activity ends by guiding the creature through the maze. During the activity, you can freely adjust the light intensity in the maze, light intensity of the skylight, maze view - 2D and 3D view option, maneuver the setting of the maze (side). The levels differ in the complexity of the maze.

Activity in education:

It supports fine motor skills, cause and effect thinking or strategic thinking. Supports problem solving and creative thinking. It will be necessary to know the directions of movement (cardins of the world or right-left, up-down) or spatial orientation. In the case of limiting the brightness of the map and the brightness of the firefly, spatial memory is also required when we learn about the corridors on the map.
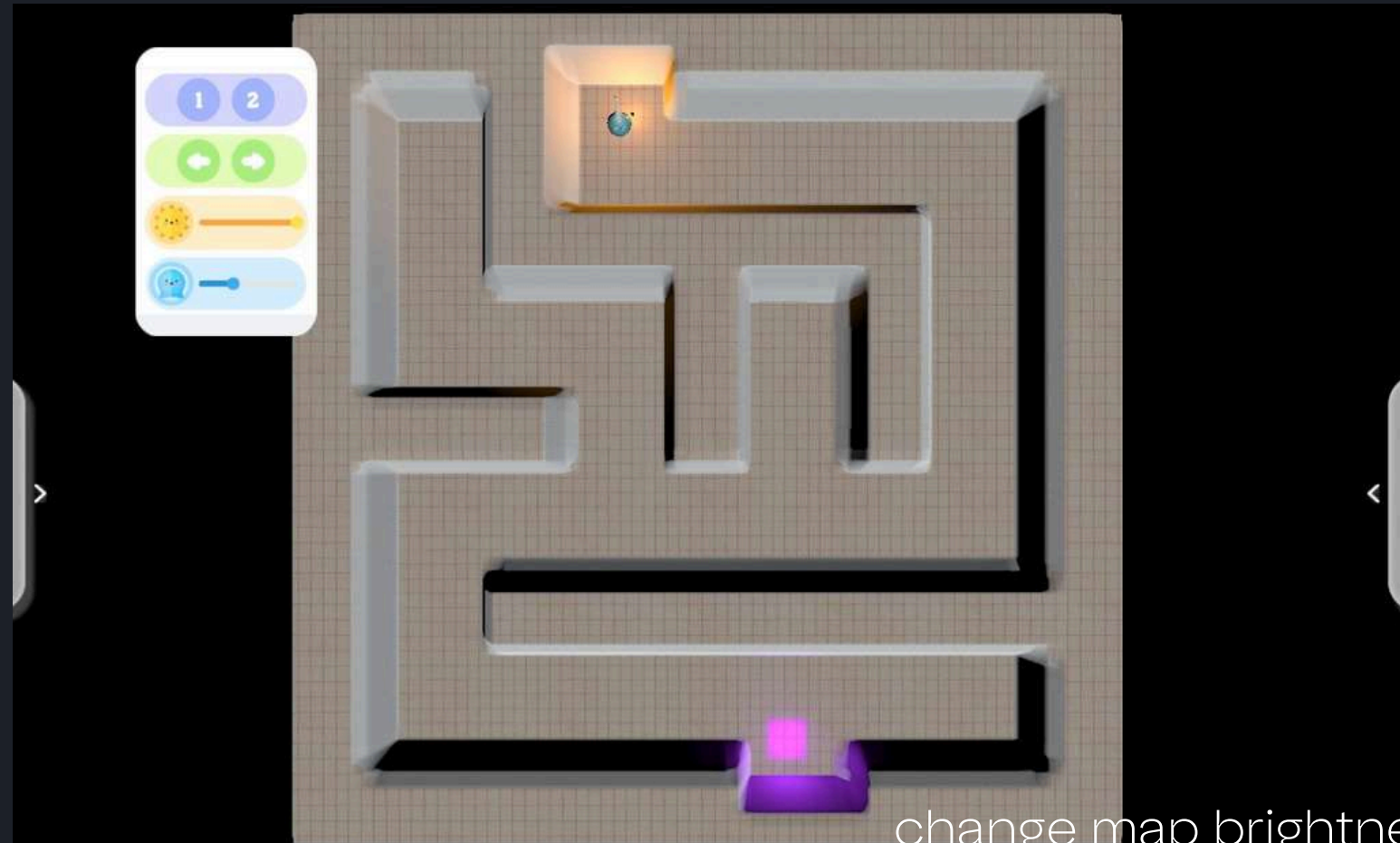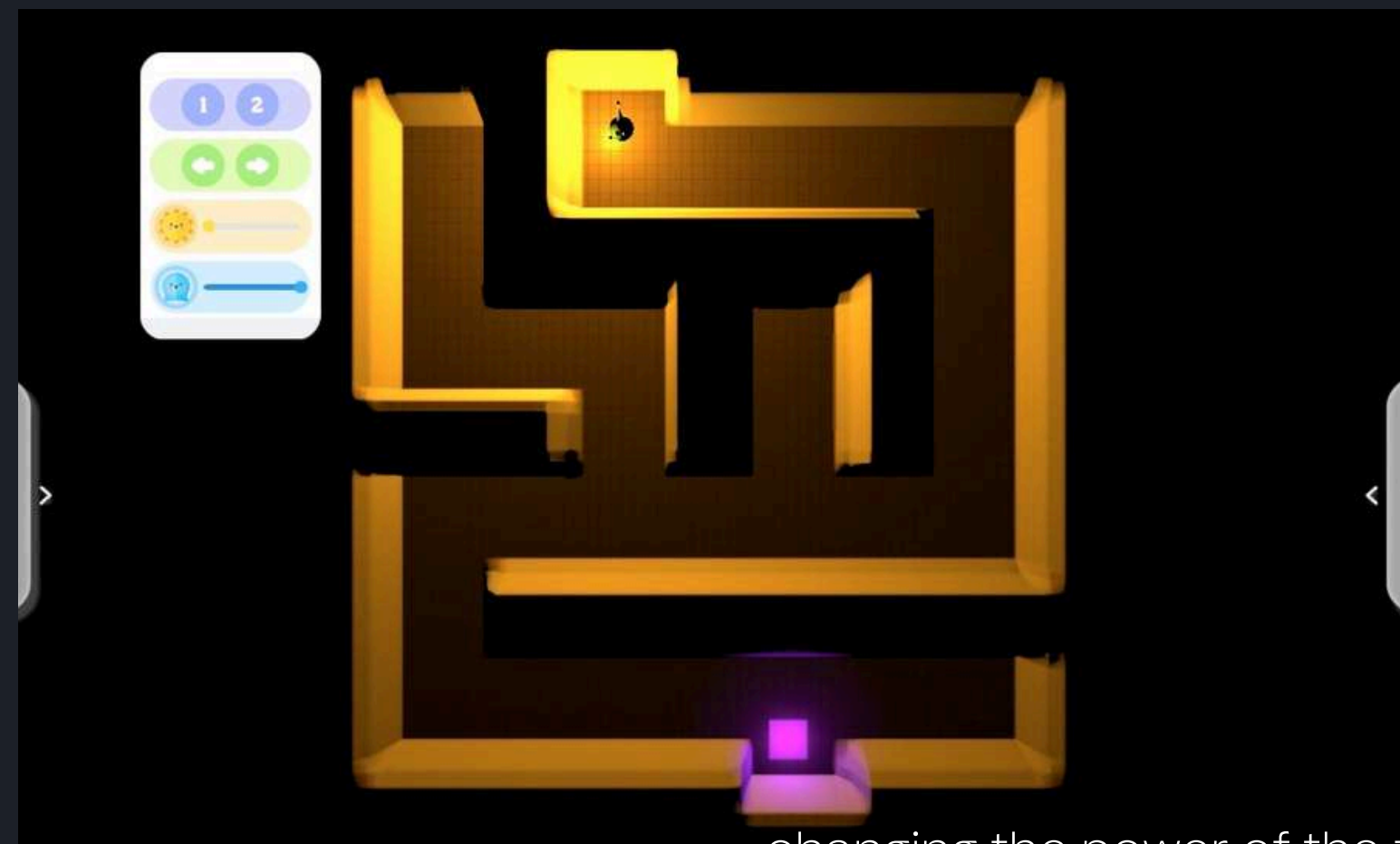
2D view

3D view
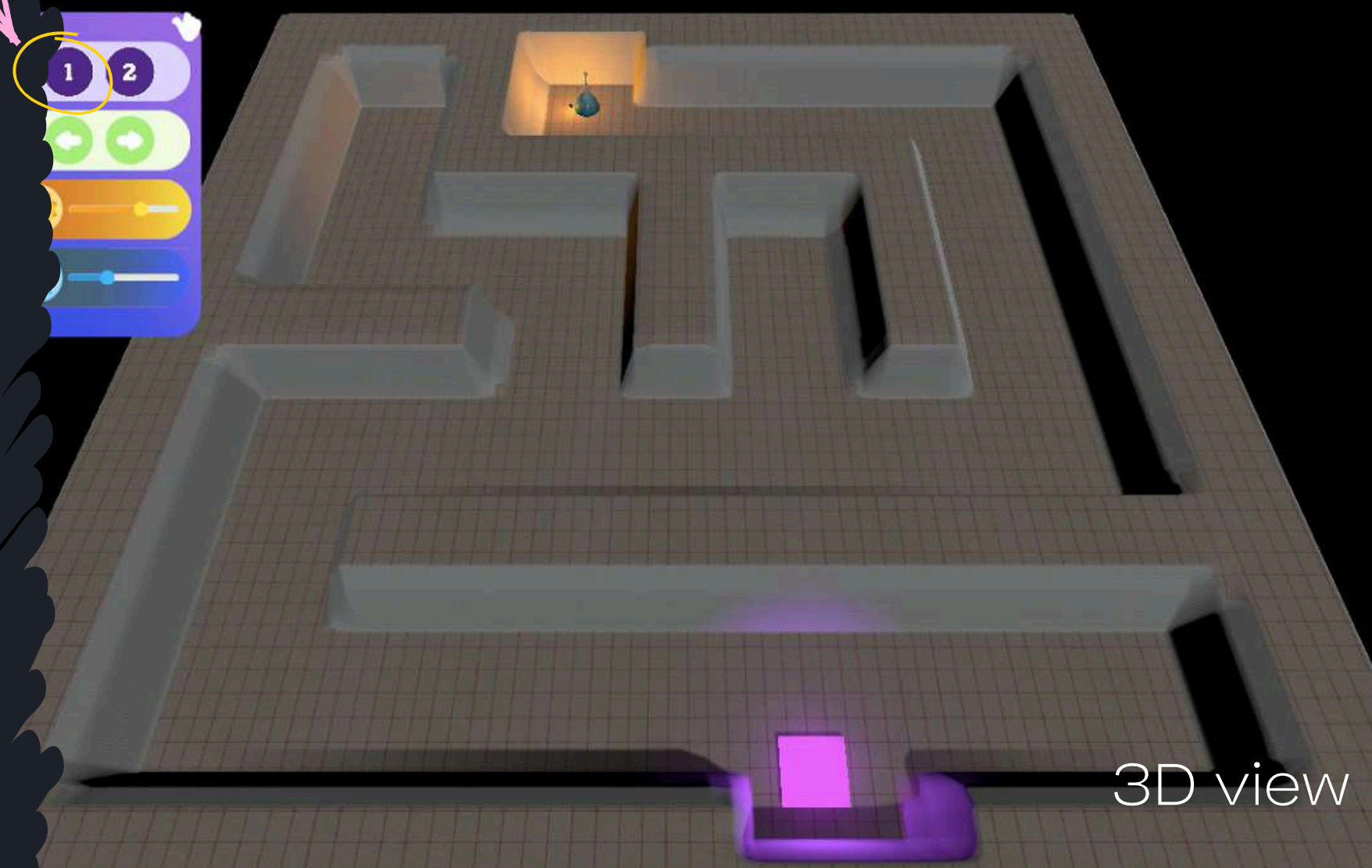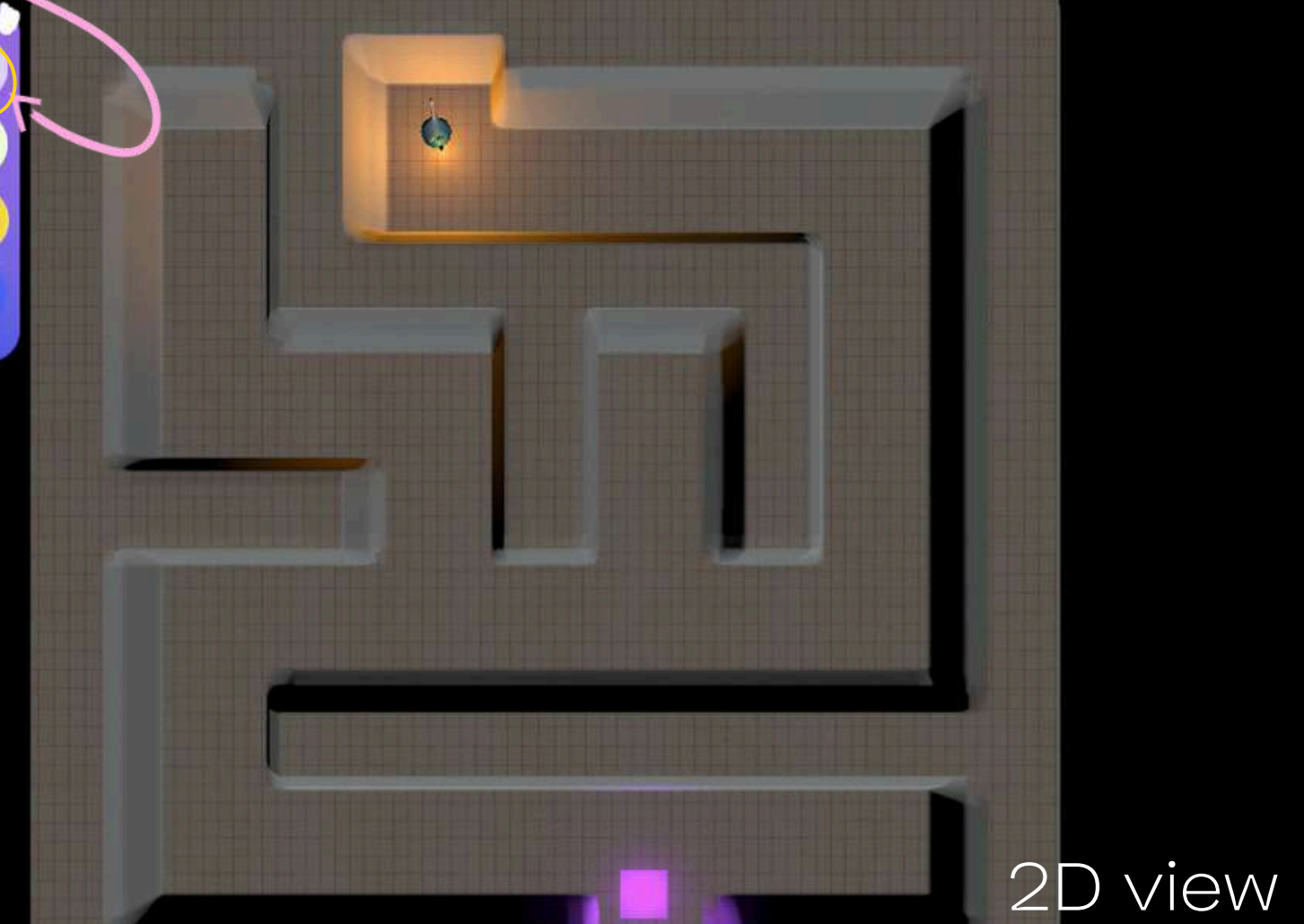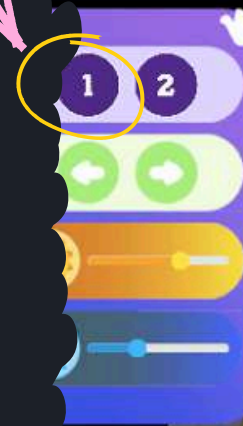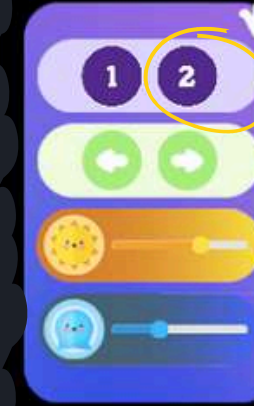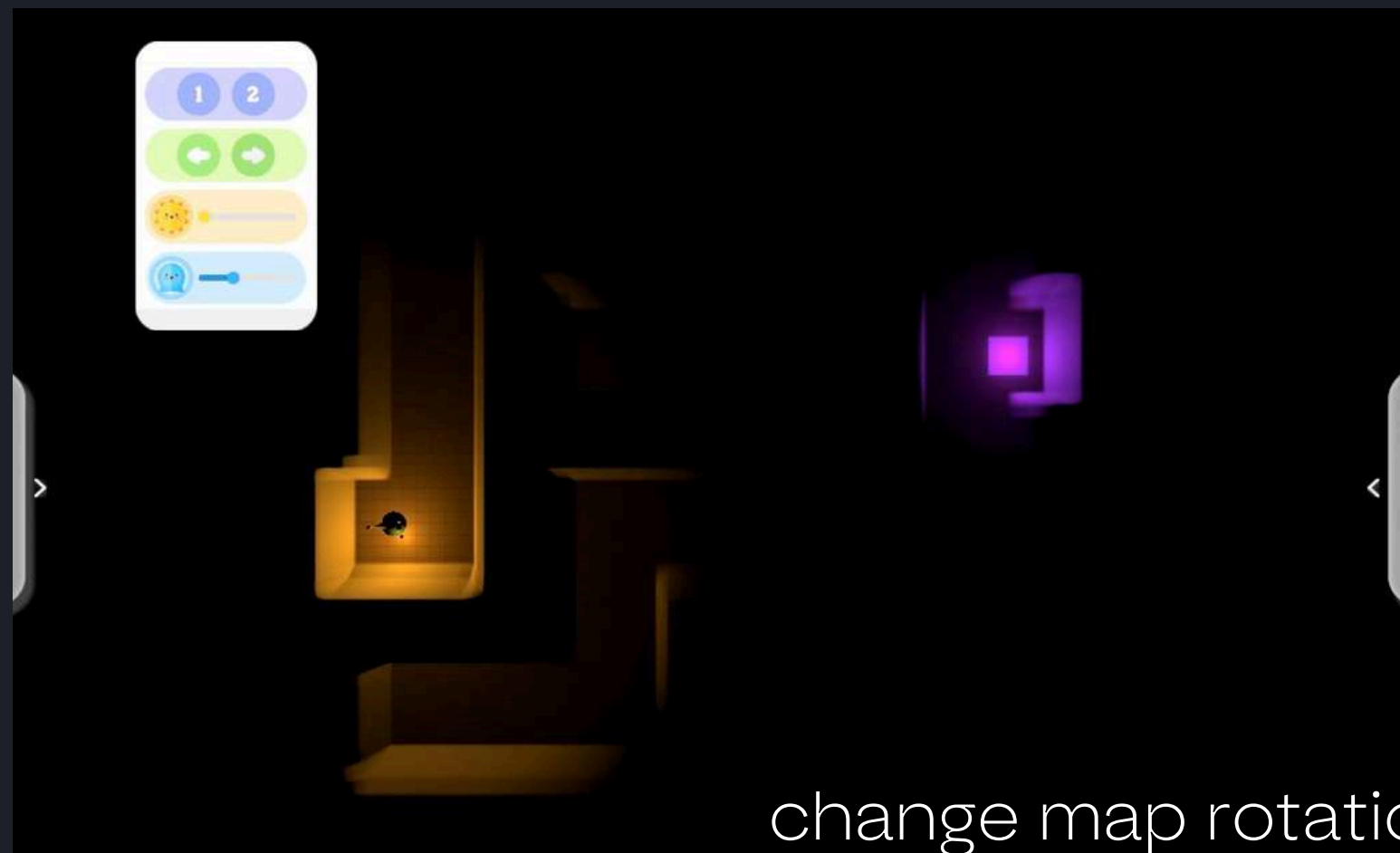
change map rotation
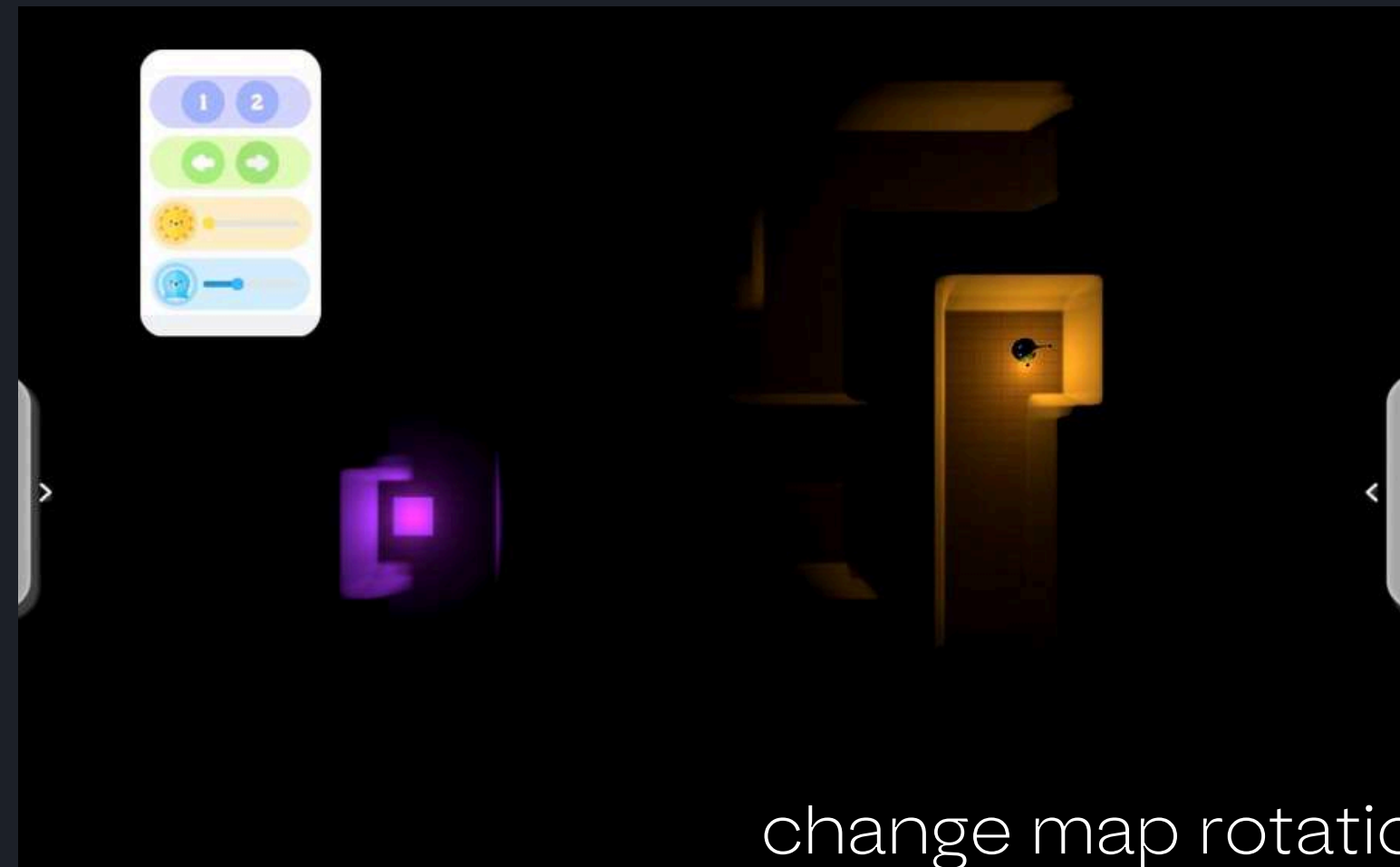
change map rotation

change map brightness
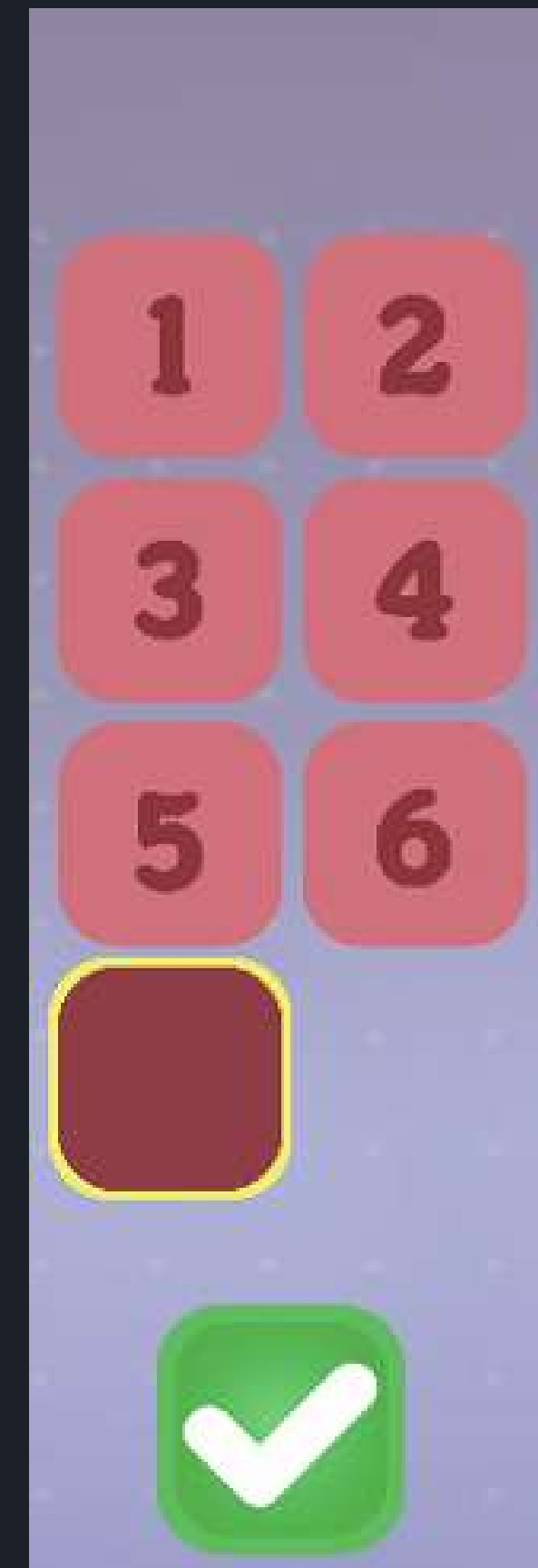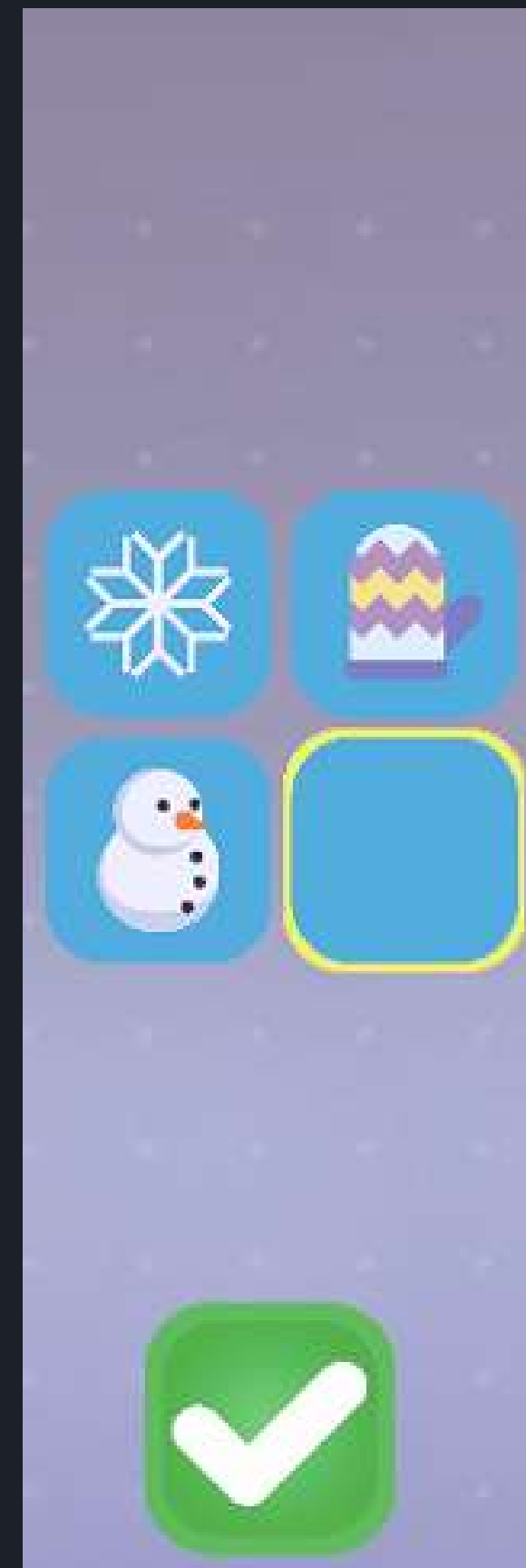
changing the power of the firefly

Solve sudoku

Legend:

numbers/pictures - fields to be used on the board
empty field - erases a number/picture from the board
check - checking the correctness of the task

Solve sudoku

The activity refers to the classic version of sudoku. Numbers or pictures cannot be repeated in 3x3 squares (for medium and difficult levels) and in horizontal, vertical or diagonal lines. To insert a number/picture you need to: select a given field, select a number/picture from the menu, and it will appear in the given field. Inserted numbers/pictures can be changed or reset to an empty field. Pressing the check button completes the sudoku puzzle. The activity ends successfully when all numbers/pictures are set correctly and check is pressed. If, after pressing check, the board was not filled or any number was incorrectly set, then the activity ends in failure.

The levels differ in the number of sudoku fields (4x4 - level 1, 9x9 - level 2 and 3) or the presence of pictures or numbers (pictures - level 1 and 2, numbers - level 3).

Activity in education:

The activity helps visually distinguish numbers. It develops analytical, strategic and logical thinking. It trains the precision of movements when inserting the appropriate digit.
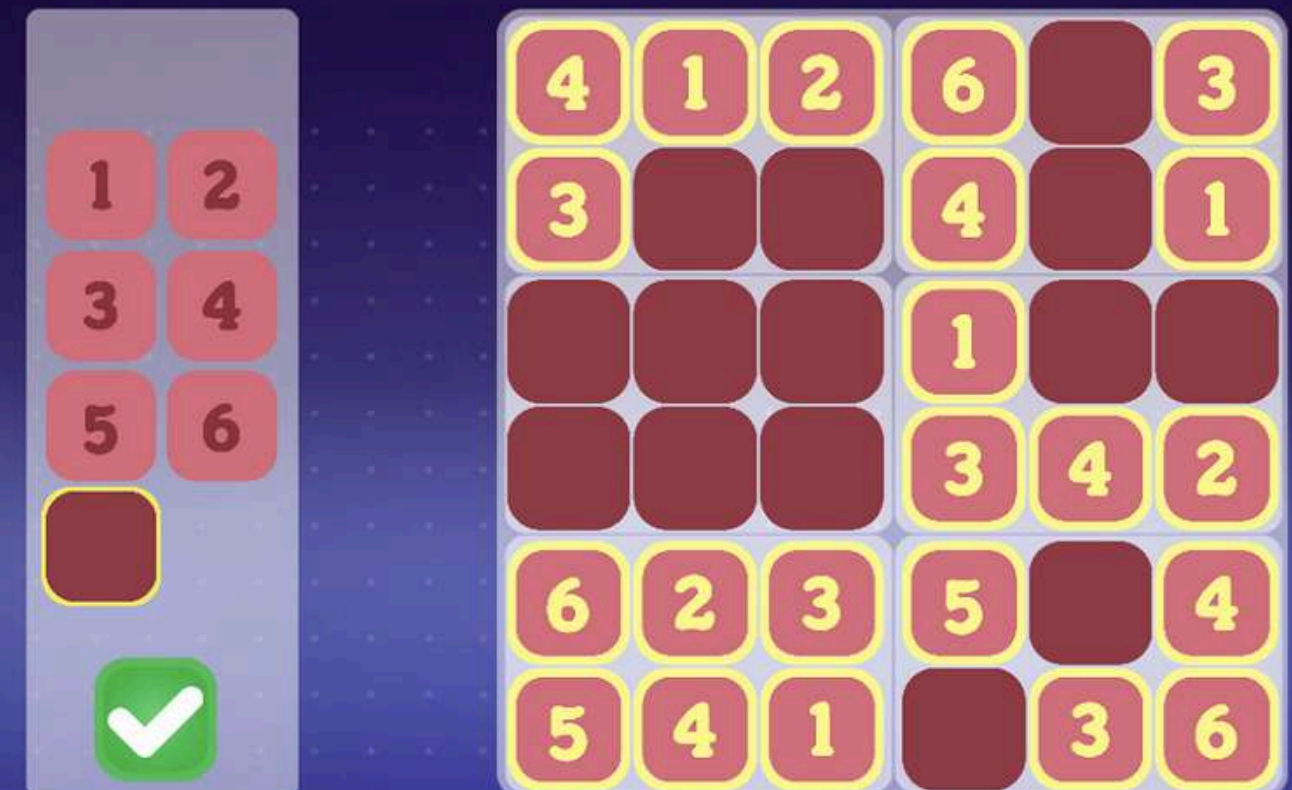
Look for letters and numbers

The task of the participant is to mark all occurrences of the above-mentioned sign (letters/numbers) on the board. A correctly selected character will be highlighted in green, and the number of other occurrences of the character listed above will also decrease. The incorrect character will not be highlighted. The activity ends successfully, when all occurrences of the character are selected.

The applications are divided into letters by case (capital, small, both case) and numbers. They are also differentiated in terms of the arrangement of characters on the board: stacked in rows or scattered in levels.

Activity in education:

The activity helps to remember the shape of letters or numbers, both uppercase and lowercase. In addition, it develops perceptiveness.

Planet in Education

Core Curriculum for Kindergarten

Knowla

Kindergarten tasks

Systematic support for the development of the child's learning mechanisms, leading to their achievement of a level enabling them to start learning at school.

Achievements of the child at the end of pre-school education:

- The physical area of the development of the child. A child prepared to start learning at school performs activities such as: cleaning, packing, holding objects with one hand and with both hands, small objects with the use of properly shaped grips of the hand, uses a writing grip when drawing, tracing and first attempts at writing; demonstrates body dexterity and coordination to the extent that it is possible to start systematically learning complex activities, such as reading and writing.

- Cognitive area of child development. A child prepared to start learning at school: recognizes letters that he or she is interested in as a result of play and spontaneous discoveries, reads short words made of known letters in the form of printed subtitles concerning content that is used in everyday activities; performs own graphic experiments with paint, crayon, pencil, felt-tip pen, etc., creates simple and complex signs, giving them meaning, discovers fragments of selected letters and numbers in them, draws selected letters and numbers on a smooth piece of paper, explains how the crossed out, drawn or saved shapes, converts a motion image into a graphic image and vice versa, independently plans the movement before saving, e.g. a graphic sign, letter and others in the space of a square grid or ruled line, determines directions and places on a sheet of paper; undertakes independent cognitive activity e.g. looking at books, developing space with your own design ideas, using modern technology, etc.

Knowla

Terms and method of implementation

- Toys are also an element of space and teaching aids used in motivating children to take independent action, discovering phenomena and ongoing processes, consolidating the acquired knowledge and skills, inspiring to conduct their own experiments. It is essential that every child has the opportunity to use them without unreasonable time limits.
- An element of the space in the kindergarten are appropriately equipped designated places for resting children (chair, mattress, mat, pillow), as well as elements of equipment suitable for children with special needs educational needs.

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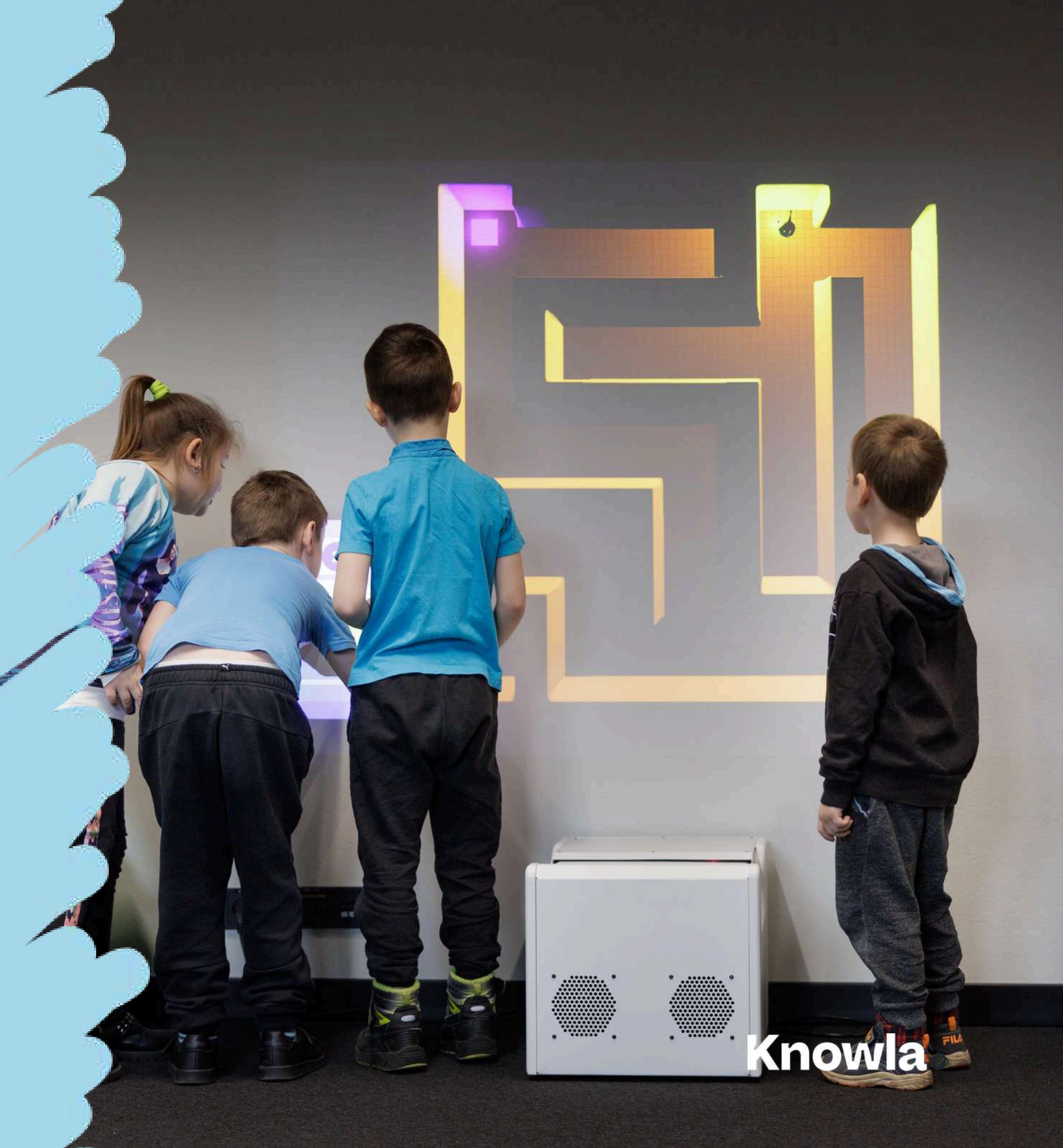
Core Curriculum for early school grades I-III

The tasks of the school in the field of early childhood education include:

ensuring access to valuable sources of information in the context of student development and modern technologies.

Knowla

Teaching content - detailed requirements

- Polish studies education. Writing achievements. The student writes by hand, legibly, fluently, sentences and continuous text in one line; correctly arranges continuous text on a notebook page, checks and corrects the written text;

- Mathematical education. Achievements in understanding numbers and their properties. The student reads and writes, using digits, numbers from zero to a thousand and selected numbers up to a million (e.g. 1,500, 10,000, 800,000);

- IT education. Achievements in the development of social competences. Student: works with students, exchanges ideas with them and experiences using technology; uses the possibilities of technology to communicate in the learning process.

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The planet in educational practice

Knowla.

Writing becomes magical

Knowla's activity: Write numbers on the trace, Write letters on the trace, Trace the patterns - Planet M

In these activities, when you write or draw a trace, you fill a given character or pattern with color.
It is worth diversifying learning to write and giving students a certain sense of agency in this activity. It may turn out that such an interlude will give sense to these exercises and inspire you to play with words later. It is important to remember about the regularity of such exercises, e.g. after each learned letter. You can also think about preparing them as part of gamification.

Mileage Method 1:
Classes require a bit of storytelling, i.e. the ability to tell a story from the teacher, but even without a great story it will be more pleasant for students to learn to write. As part of the activity, you can use magic dust. This dust is used by fairies and elves to fill shapes. This is their daily work where students can help. They should grab the magic pen, see how to properly fill the shape with pollen, and get to work. Help the fairies and elves to fill in as many shapes as possible.

Knowla

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Process Method 2:
Students often need to know the purpose of an activity and learning to write for the sake of writing may not be enough for them. They want to see and know the effects here and now and have a sense of agency of their own actions. If they've watched "Harry Potter and the Sorcerer's Stone", they may remember the scene where Hogwarts students learn spells. There, they must learn to move their hand properly for the spell to have the desired effect. Very similar principles apply to activity. Just grab the pen and magical sparks will start to fall. However, only with the correct movements, the spell will work. As is well known, words made of signs have power.

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The alphabet celebrates its cognition

Knowla's activity: Write numbers on the trace, Write letters on the trace, Trace the patterns, Look for letters and numbers, Colour the letters and numbers, Play dominoes - Planet M

Each important milestone should be properly celebrated. Therefore, after the end of learning, you can afford to have fun, which will still consolidate the material. If students learn using the gamification method (using the mechanics of computer games in tasks unrelated to them; here, for example, learning each letter can be treated as an achievement of a certain stage, for which the student receives a reward), then the completion of the mission by students should be even more celebrated.

Knowla

Tag game learns numbers and letters

Knowla's activity: Look for letters and numbers - Planet M
Materials needed: Cards with numbers or letters so that there are enough for all the people taking part in the game. Letters or numbers may be repeated. For letters, you can distinguish between uppercase and lowercase letters. Instead of written letters at a later stage, they can be drawings of things with different first letters or in different numbers (for numbers).

Each person randomly receives a piece of paper with a number or letter, which they attach to their T-shirt on the chest or on the back (it is best to choose one version for everyone). Choose the person who starts the game. You need to open the activity "Letters" for cards with letters, "Numbers" for cards with numbers. Preferably in a mix version if the characters are to appear in random order. You can also in order by practicing their ordering. The designated person solves the task that appears on the screen by finding all the given characters. When he finishes them correctly, he turns towards the group and has to find the person with the given letter/number (the same as in the activity) attached to his shirt and catch him, as in a tag. When he succeeds, the caught person goes to the device, solves the next task with a different sign, then catches the person with that sign, and so on.
The activity ends when students have completed all the boards. You can also exchange characters, and the fun can start again.