

# Planet Contrast

Contrast makes a  
difference in perception!



The Planet Contrast contains 265 interactive activities designed to meet the special educational needs of the youngest children with visual impairments and disabilities. The activities, adapted to the perception of visually impaired and partially sighted children, feature vivid colours, a solid background, clear graphic elements, simplified contrast menus and a limited number of moving elements. The activities included in the planet stimulate the development of visual perception, improve eye-hand coordination, develop spatial orientation, improve fine and gross motor skills and exercise cognitive abilities.



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

The Planet Contrast 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 Contrast in the Educational Universe




**Knowla.edu**14:54



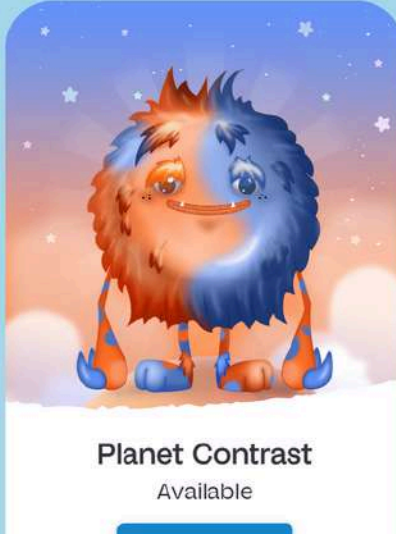
### Planet Contrast

[MANUAL](#)

The Planet Contrast contains 265 interactive activities designed to meet the special educational needs of the youngest children with visual impairments and disabilities. The activities, adapted to the perception of visually impaired and partially sighted children, feature vivid colours, a solid background, clear graphic elements, simplified contrast menus and a limited number of moving elements. The activities




Planet Fruu  
Available

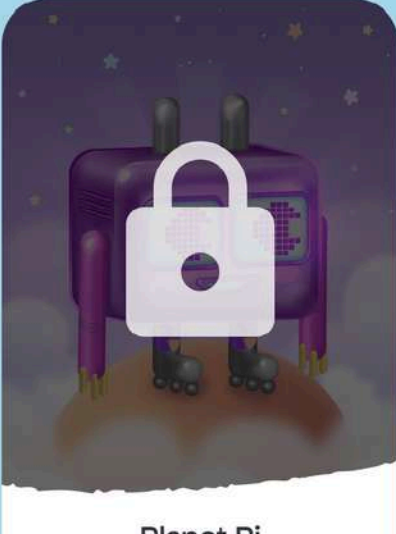


Planet Contrast  
Available

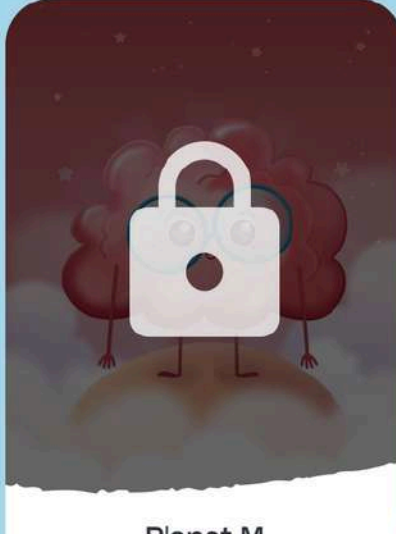
DISCOVER



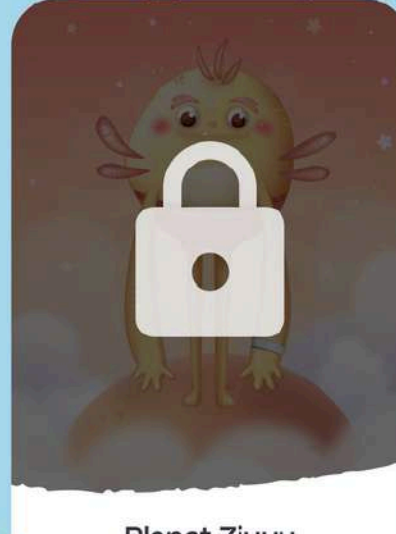
Planet EduMini  
Available



Planet Pi  
Buy access



Planet M  
Buy access



Planet Ziuuu  
Buy access

Navigation icons: back, forward, home, search, settings, volume, Knowla logo, Windows logo.





# System buttons and menu view

## Main menu - Knowla Box/Knowla Wall



return to all planets view



previous planets/apps/activities



more planets/apps/activities



move 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









move 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 - legenda



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



background change



exit to activity selection list,  
any changes will be lost



previous board



next board



allows you to move a given object around  
the board, hides or reveals the application  
menu



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



accessibility panel (including colour  
adjustment)



interactive activity guide



Successful activity

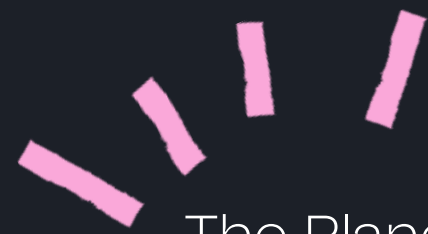


Activity failed



**Activity** list  
with quantity or time





The Planet Contrast includes 14 apps with 265 activities:

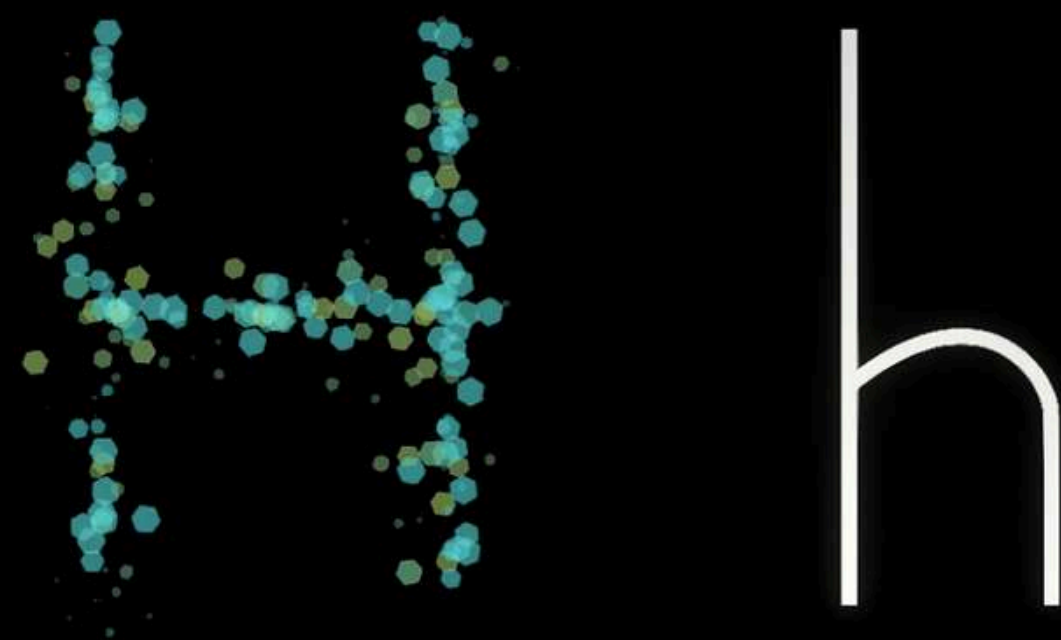
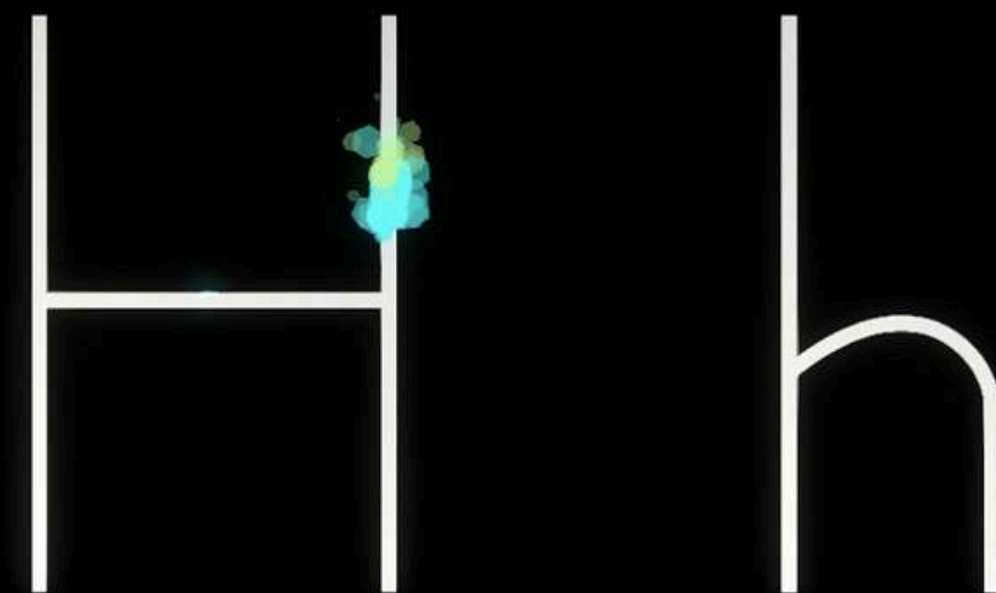
1. Write letters on the trace - 24 activities
2. Arrange shapes by features - 1 activity
3. Symmetrical drawing - 20 activities
4. Draw light on the trace - 20 activities
5. Two-handed light drawing - 3 levels, 135 activities
6. Light up the shapes - 20 activities
7. Solve sudoku - 1 activity
8. Follow the trail - 2 levels, 2 activities
9. Collect the numbers - 1 activity
10. Road coding - 3 levels, 30 activities
11. Program the way - 3 levels, 3 activities
12. Match the towers - 2 activities
13. Where is the monster? - 3 activities
14. Magical jellyfish - 2 levels, 2 activities





# Write letters on the trace

There is a given letter on the board. The task of the participant is to recreate the trace in accordance with the correct drawing direction. Only in this way will the pattern be filled. From time to time, an animation is activated that shows the right direction of action. Be careful to pull each line to the end. After filling the pattern, it fills with "crystals" that can be scattered across the board.



# Arrange the the shapes by features

There are two boards in the activity: the riddle board on the left and the element board on the right. By holding the boards, you can move them around the screen. The task of the participant is to arrange the elements from board to board of riddles to match in the column by the shape of the element and in the rows by color.

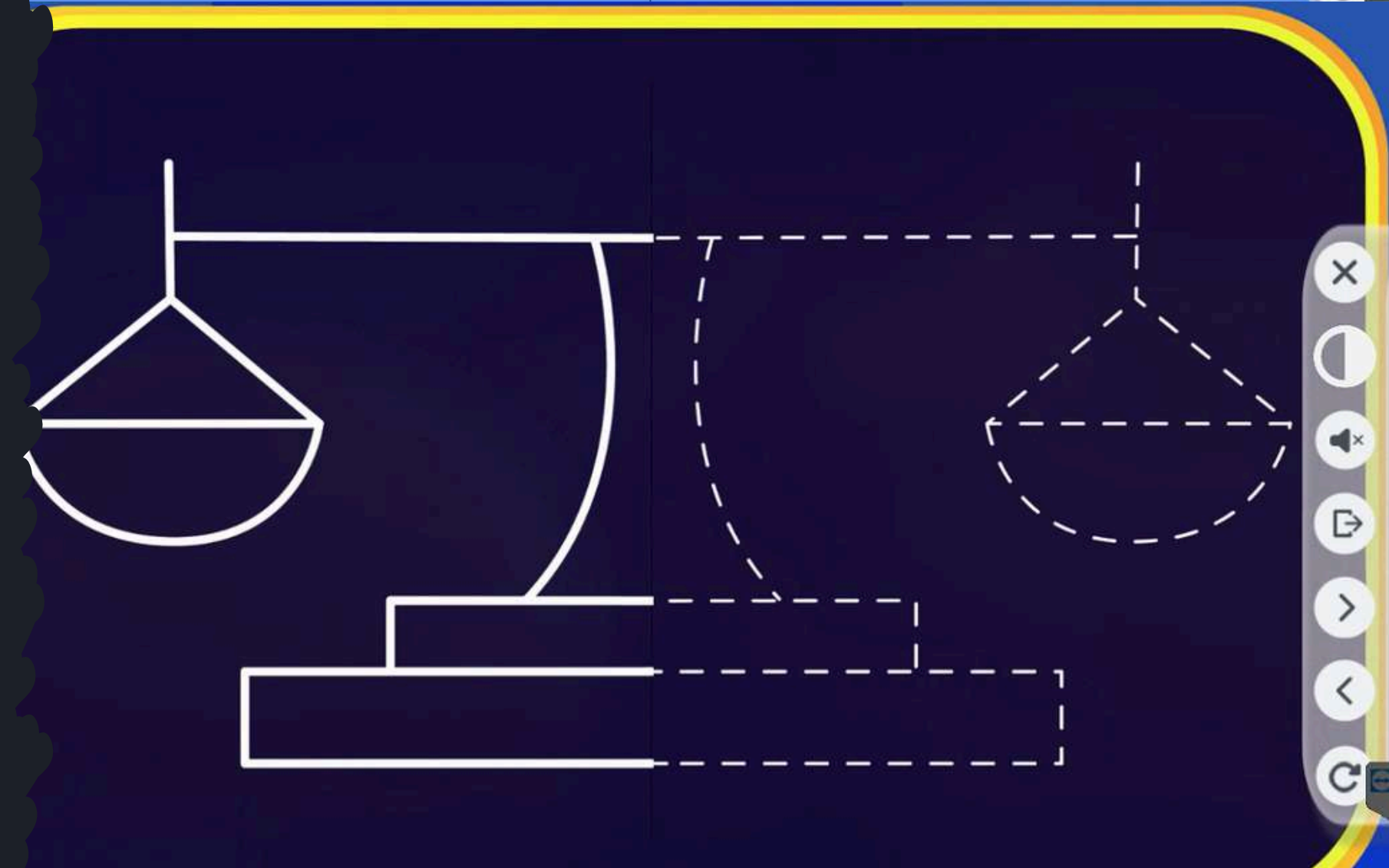
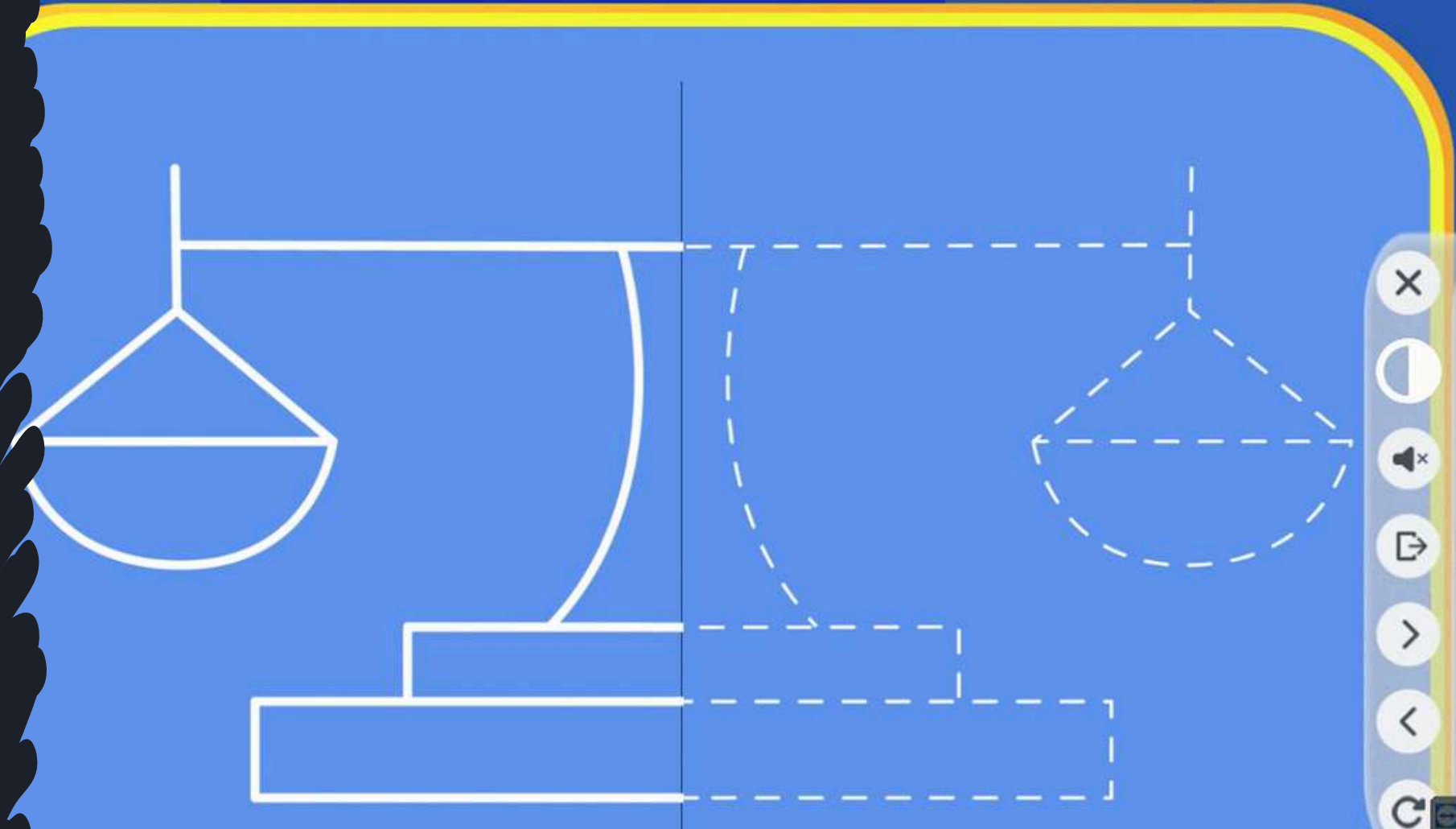
To do this, click on the item and then drag it into place on the puzzle board. If this is done incorrectly, the field will be highlighted in red. The activity is successful when all the pieces are placed on the correct spaces on the puzzle board.





# Symmetrical drawing

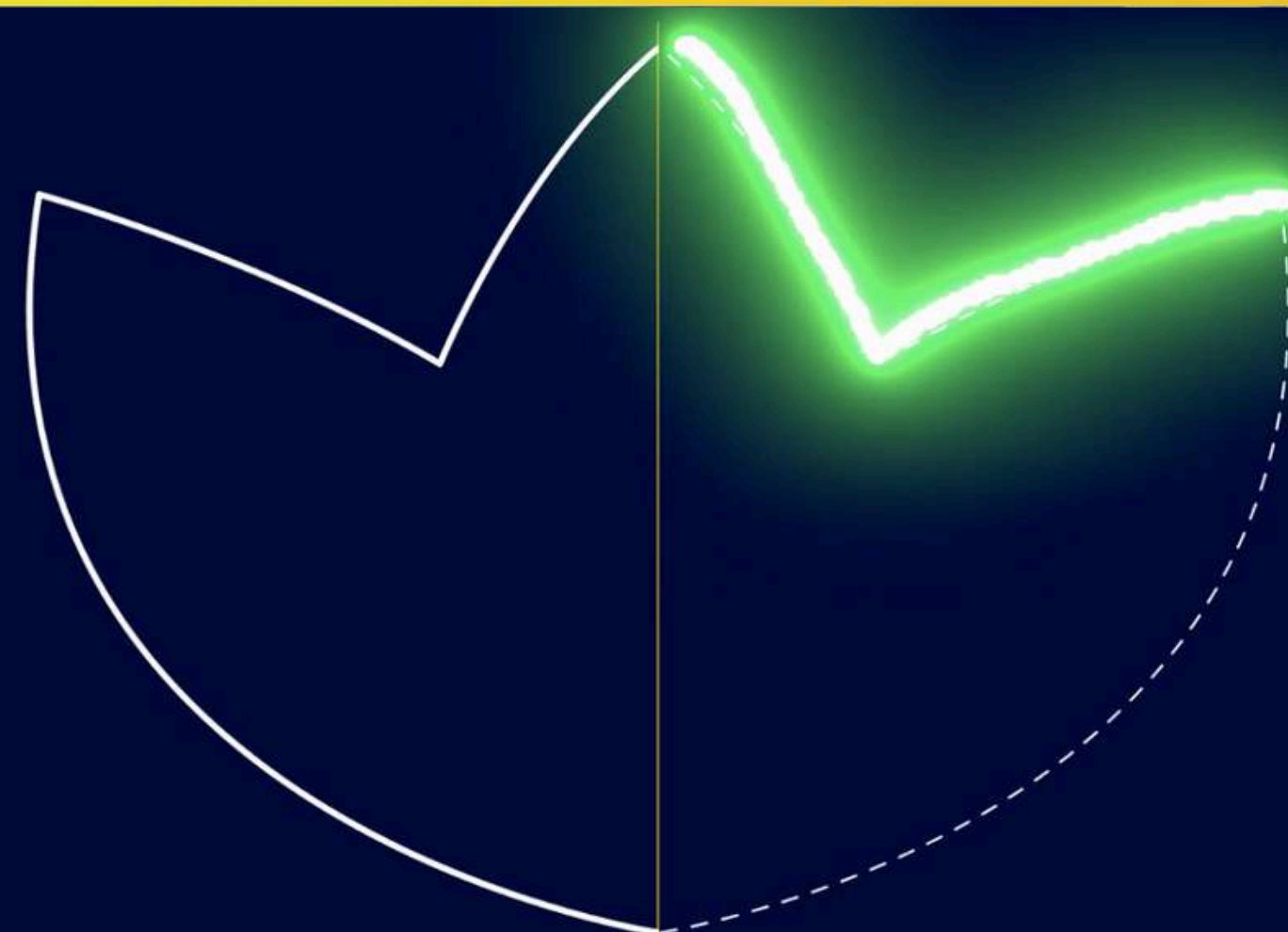
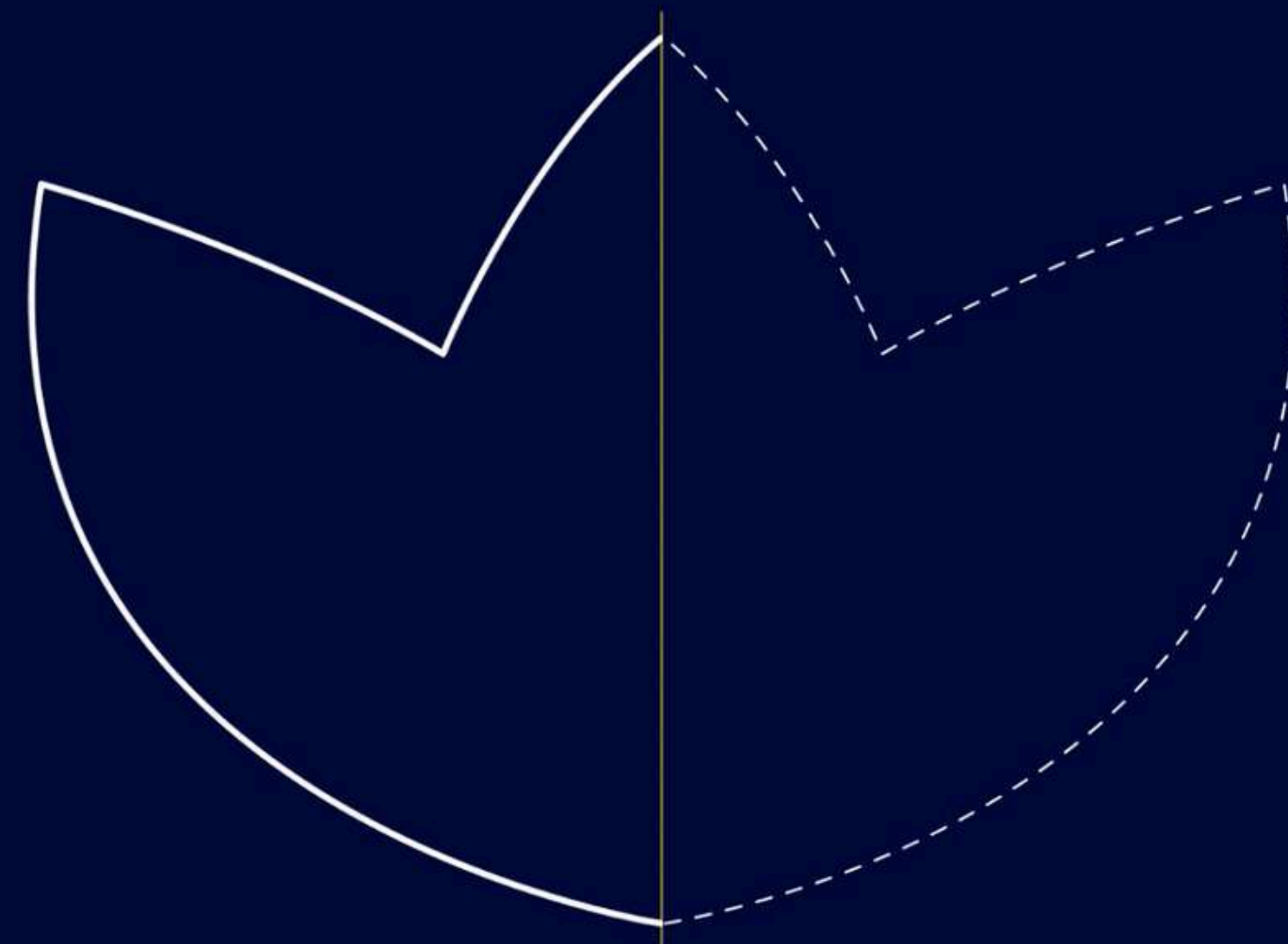
A picture will appear on the board, half drawn with a solid line and half drawn with a dashed line. The participant's task is to draw as precisely as possible along the dotted line to complete the pattern. A green line will appear after dragging. The task is successful when the line is drawn exactly. However, if it goes too far out of shape, the activity will fail.





# Draw light on the trace

A picture will appear on the board, half drawn with a solid line and half drawn with a dashed line. The participant's task is to draw as precisely as possible along the dotted line to complete the pattern. After dragging, a luminous line will appear. The task is successful when the line is drawn exactly. However, if it goes too far out of shape, the activity will fail.

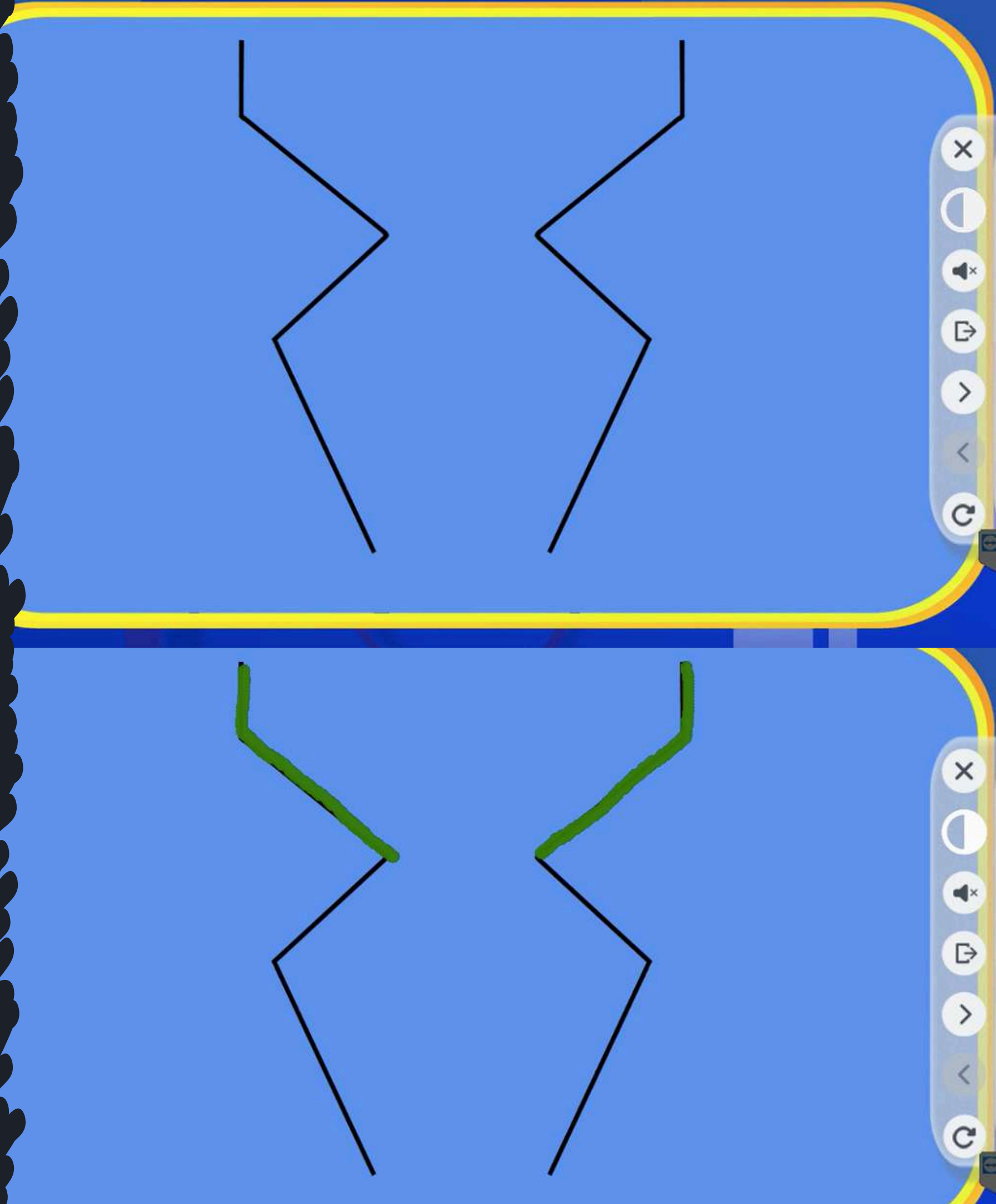


# Two-handed light drawing

It is recommended that the participant use two pens at a time.

The pattern and its mirror image will appear on the board. The task of the participant is to draw as accurately as possible along the line. A green line will appear after dragging. It is recommended to draw with both hands at once, each of which outlines one of the symmetrical patterns. The task is successful when the line is drawn exactly. However, if it goes too far out of shape, the activity will fail

The three levels of the activity differ in the tolerance of driving the sand beyond the designated line, which the activity accepts as the correct performance of the task. The greater the tolerance, the farther/more you can drive the pen out of the line and the activity will not fail.





# Light up the shapes

ticker fields

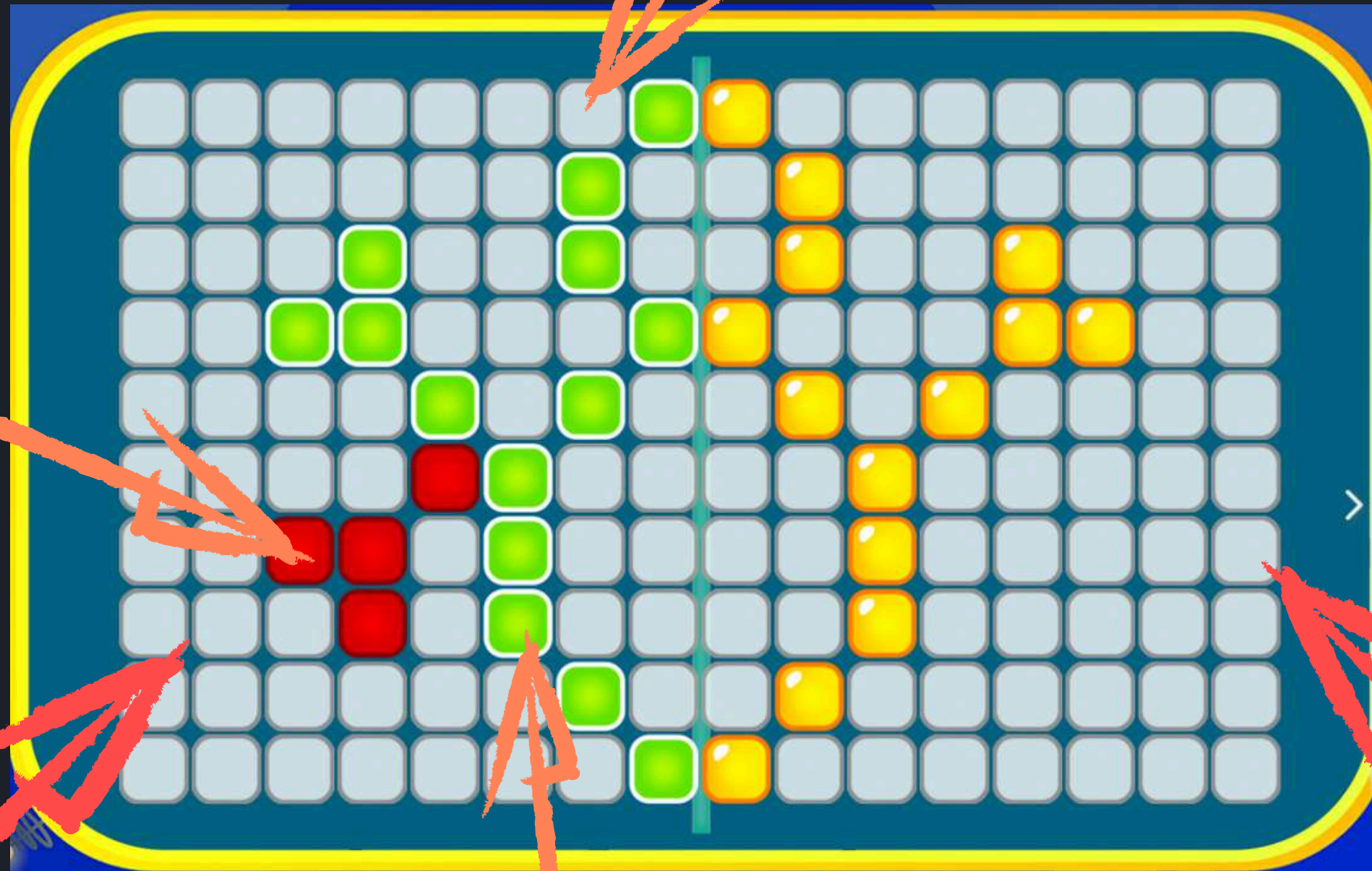
Legend:

incorrect  
box checked

part of the action

duly ticked  
field

part for mapping



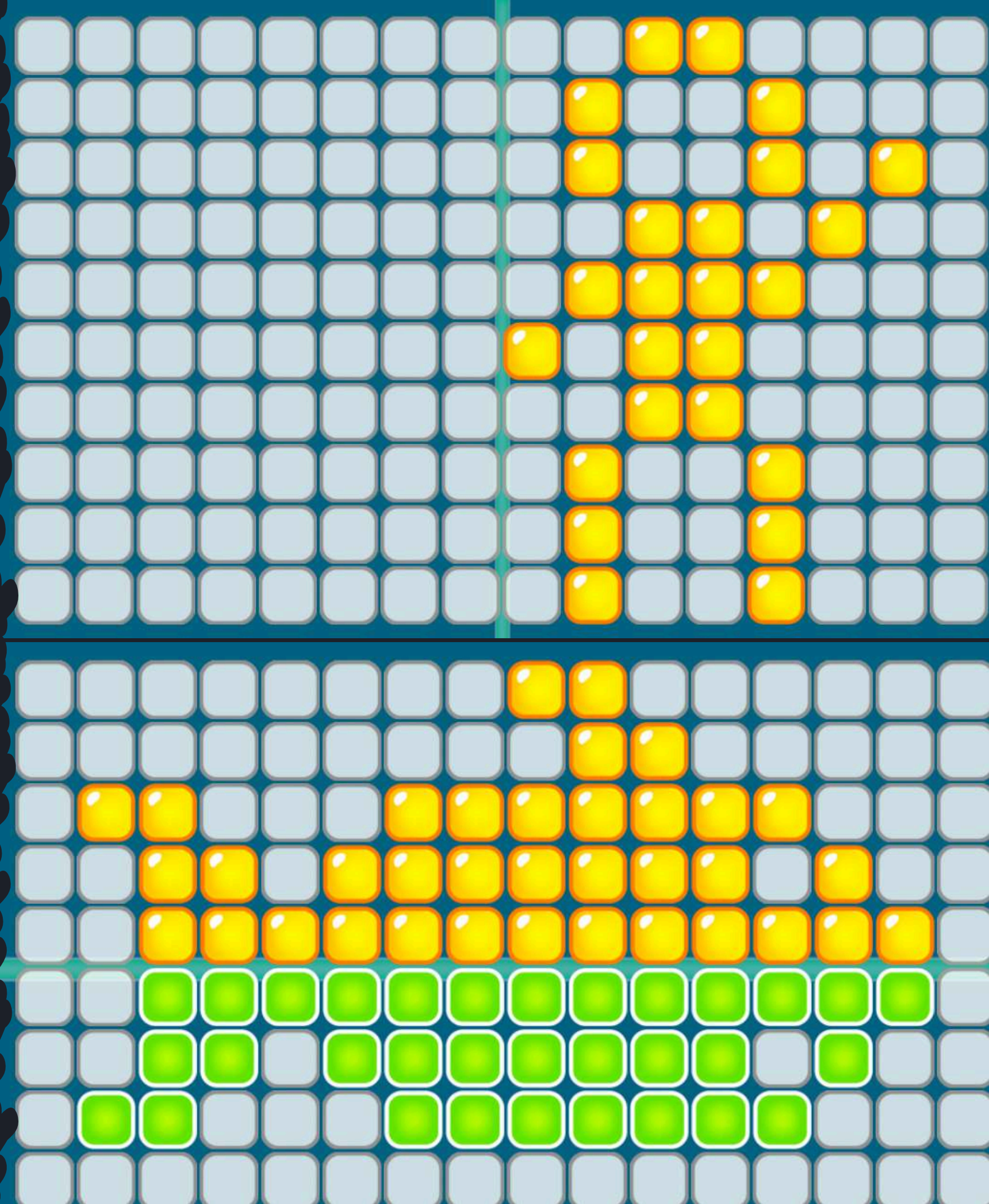


# Light up the shapes

The task is to reflect symmetrically according to the lines of the given pattern on the other side of the symmetry axis. By pressing on the corresponding boxes, they can be activated. If they are selected correctly, they will light up green, if incorrectly, they will light up red. Each box can be 'unchecked' by pressing on it again.

Failure to act in an activity will cause the correct pattern to 'flash' on the activity section.

The activity ends successfully when the pattern is correctly reproduced, i.e. all the relevant boxes will be glowing green and no boxes glowing red are ticked.



# Solve sudoku

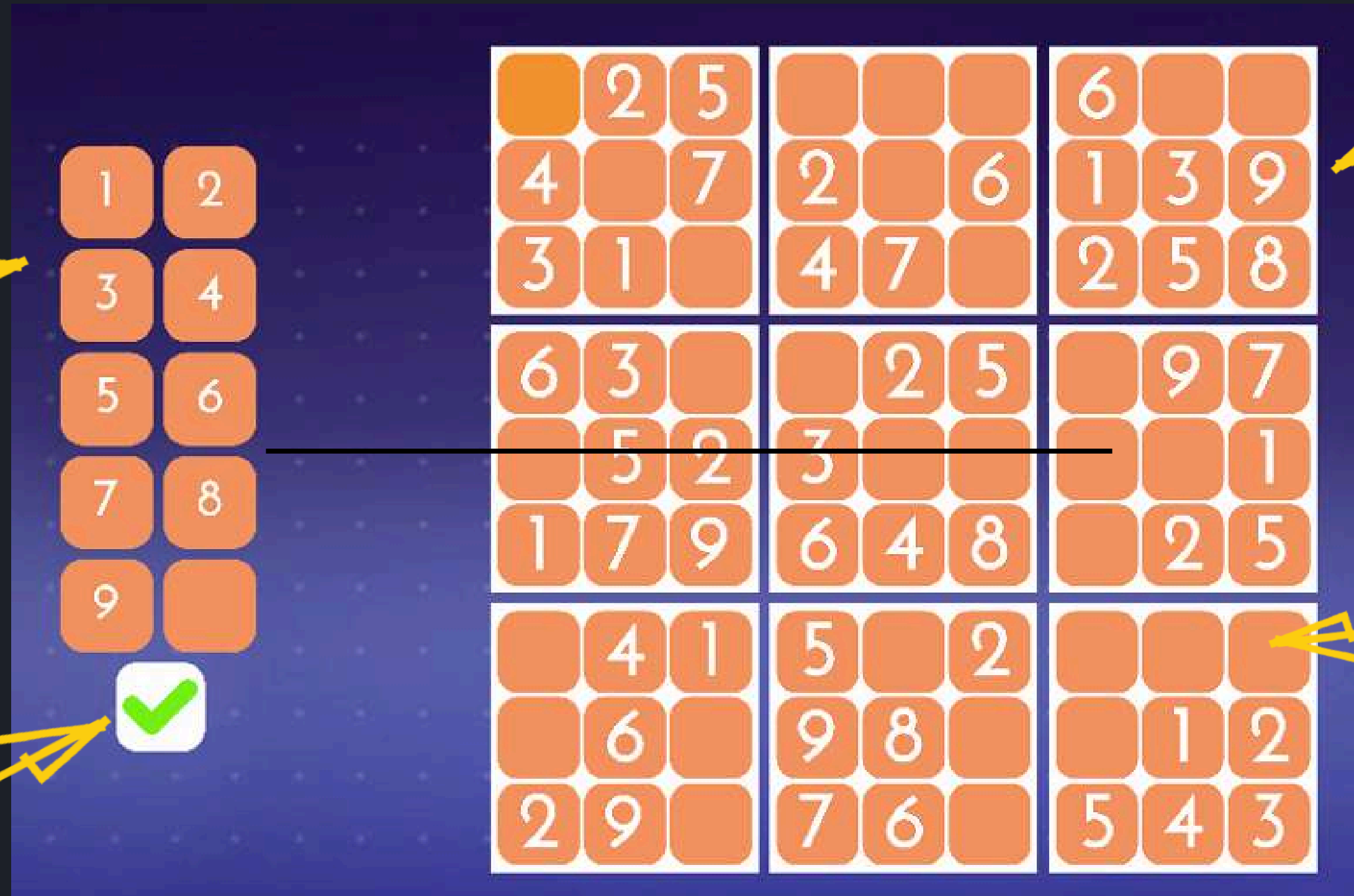
Legend:

numbers to use  
on the board

check - checking the  
correctness of the task

board


empty field - places to  
arrange the numbers





# Solve sudoku

The application refers to the classic sudoku. Numbers cannot repeat in 3x3 squares and in horizontal, vertical or diagonal lines. To insert a digit, select the field, select the digit from the menu, and it will appear in the field. The inserted digits can be changed or reset to an empty field. Pressing check completes the sudoku puzzle. The activity is successful when all digits are set correctly after pressing check. If, after pressing check, the board is not filled or any number was incorrectly set, the activity will end in failure.

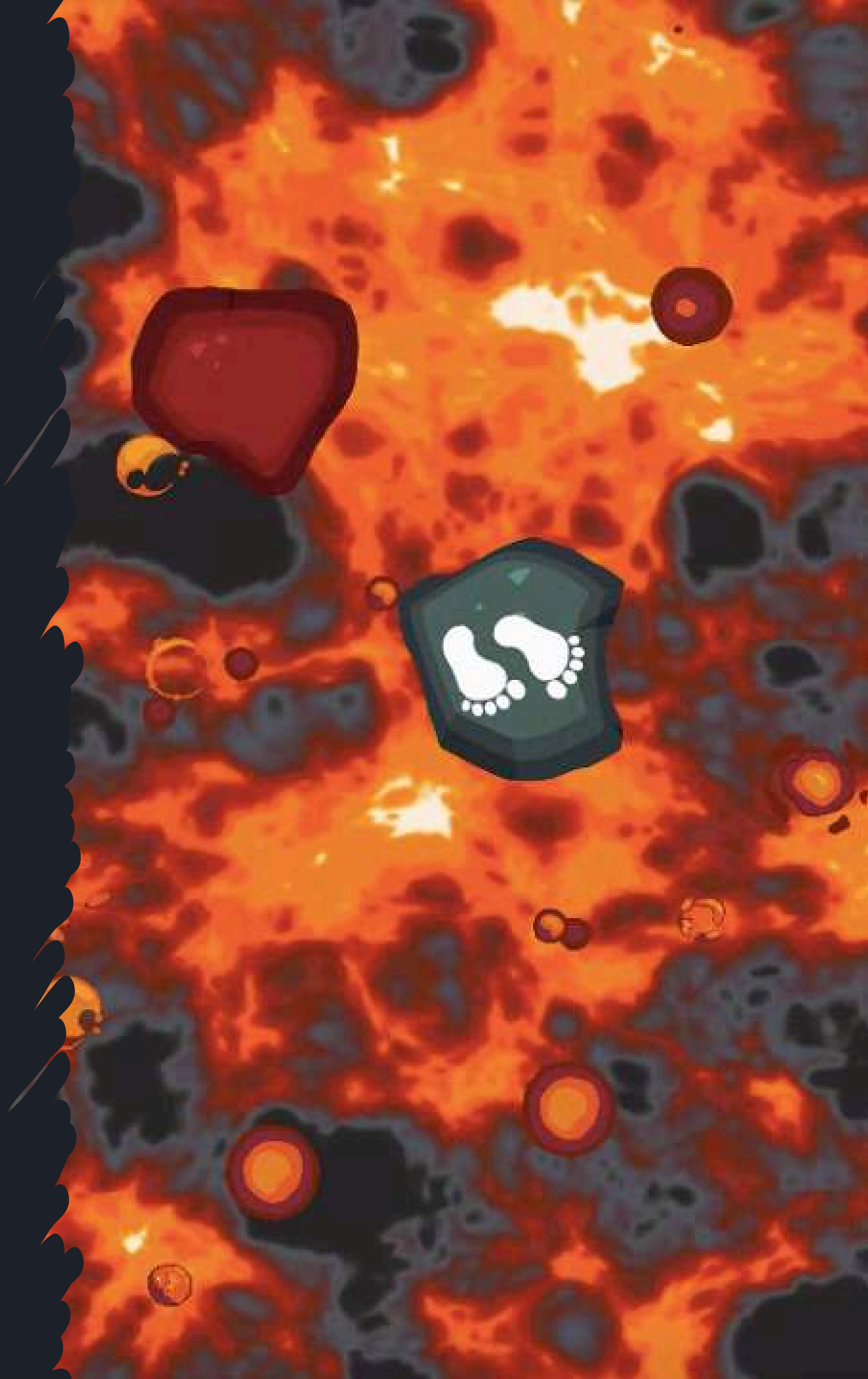
1	2
3	4
5	6
7	8
9	
	

	2	5				6		
4		7	2		6	1	3	9
3	1		4	7		2	5	8
6	3			2	5		9	7
	5	2	3					1
1	7	9	6	4	8		2	5
	4	1	5		2			
	6		9	8			1	2
2	9		7	6		5	4	3



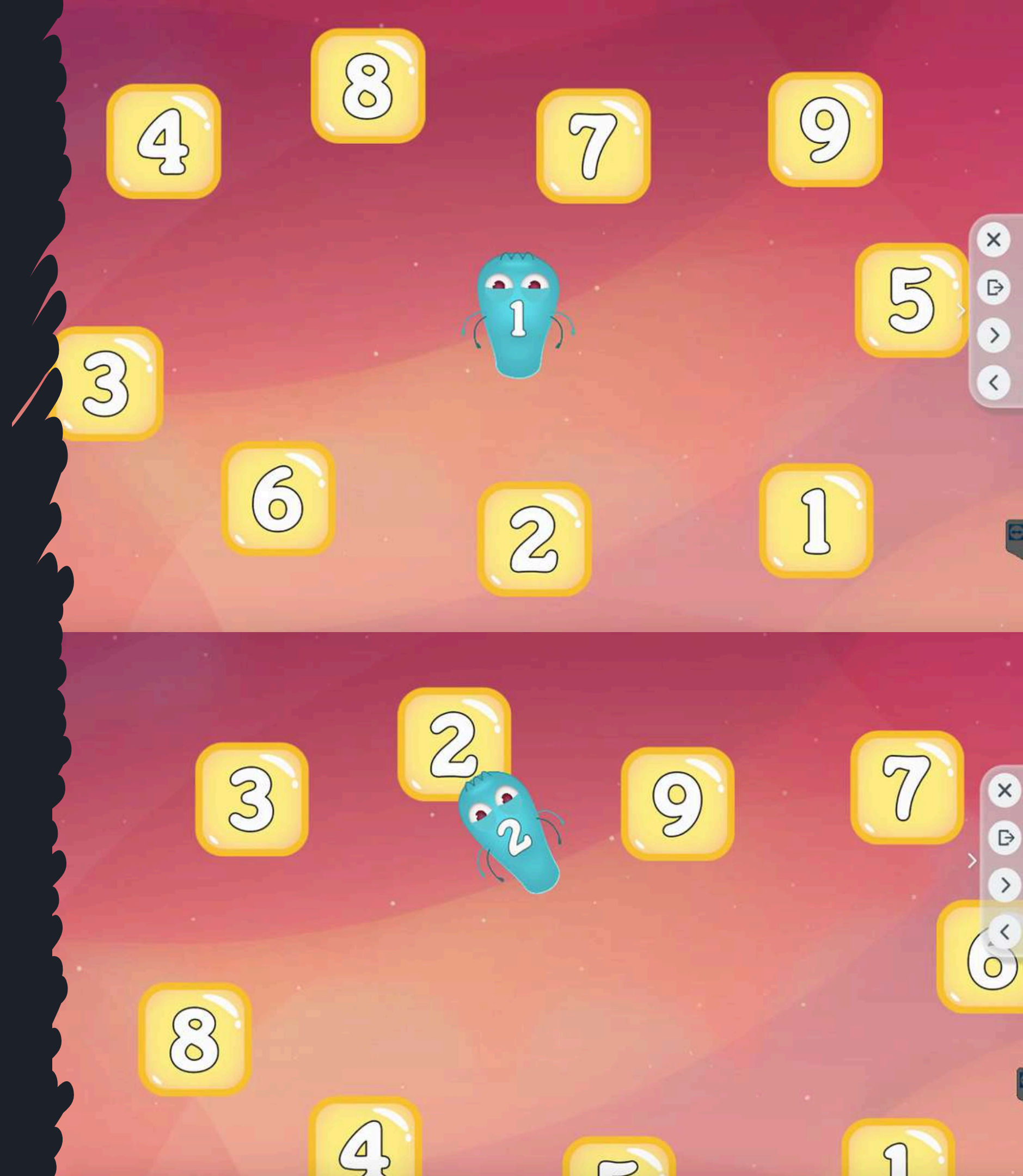
# Follow the trail

Best displayed on the floor. Squares appear on the board, in one of them there is a picture of feet. After a while, the square with the feet changes its position to one of the adjacent ones. The change of position occurs infinitely many times. The task of the participant is to follow the drawing of the feet. The applications differ in the size of the board.



# Collect the numbers

A worm with a number on it appears in the middle of the board. Click on the number in the tile that is the same as the one on the worm. After doing this, the worm will move to the indicated place. If the indicated digit matches the one on the worm, the worm's digit will increase by one, then the next one should be indicated. If the digit was incorrect, the worm will move to the indicated place, but the digit on it will not change. After each indication, the order of the numbers in the tiles changes. The activity ends successfully when all digits are indicated correctly.





# Road coding

The task of the participant is to drive the car to the yellow house. For this purpose, there are a certain number of road pieces at the bottom: curves, straights, intersections. The road should be connected with each other so that the asphalt or pavement has a continuation or, in the case of intersections, connects the road with the lanes. These items cannot be rotated. To arrange them, click on them, and then to the place where you want to put them. The green fields are empty and you can place items on them. You can switch the places of given pieces by pressing on them in turn. You can also put them back under the board. It is good that the road is adapted to the environmental conditions, but the main goal is to make it possible for the car to reach the selected house. If the road is laid correctly, the activity will be successful.

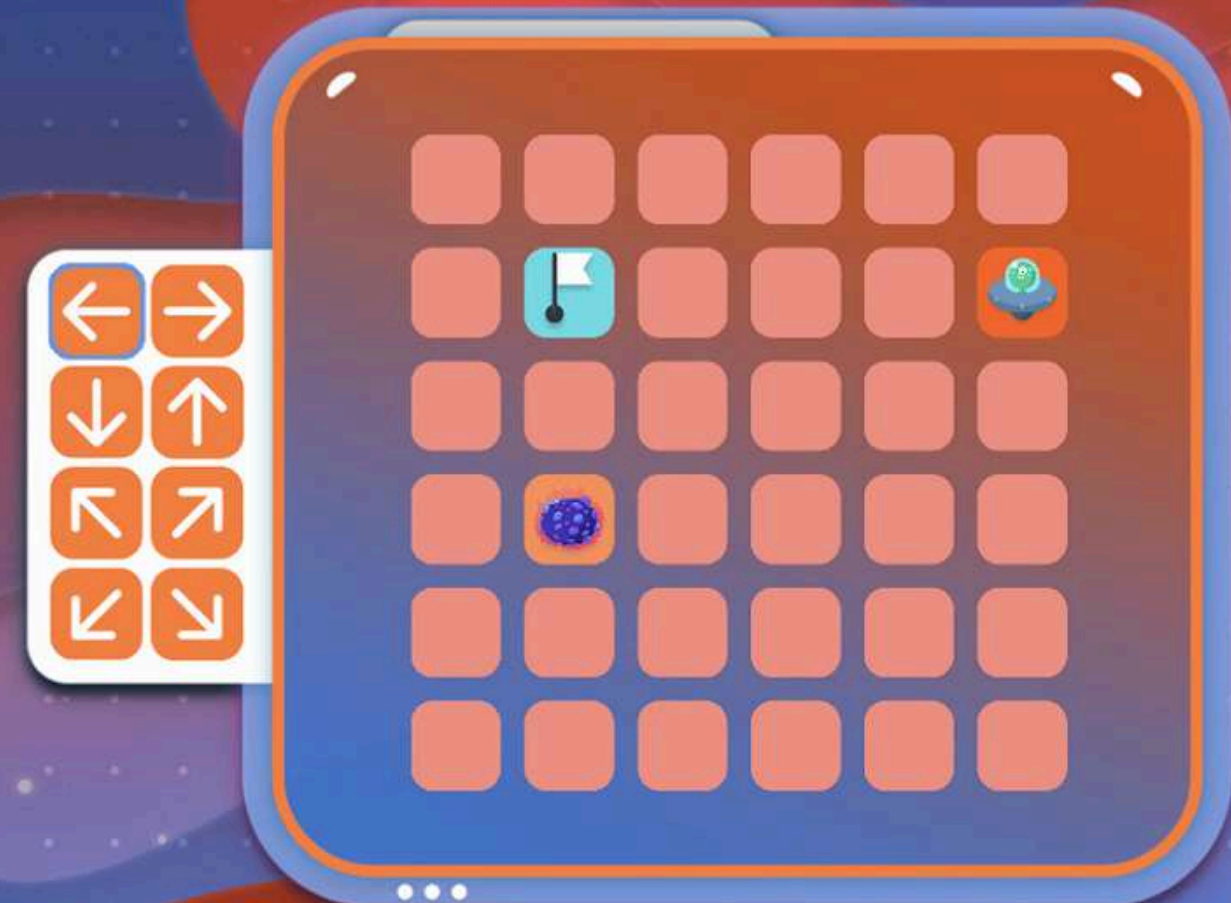
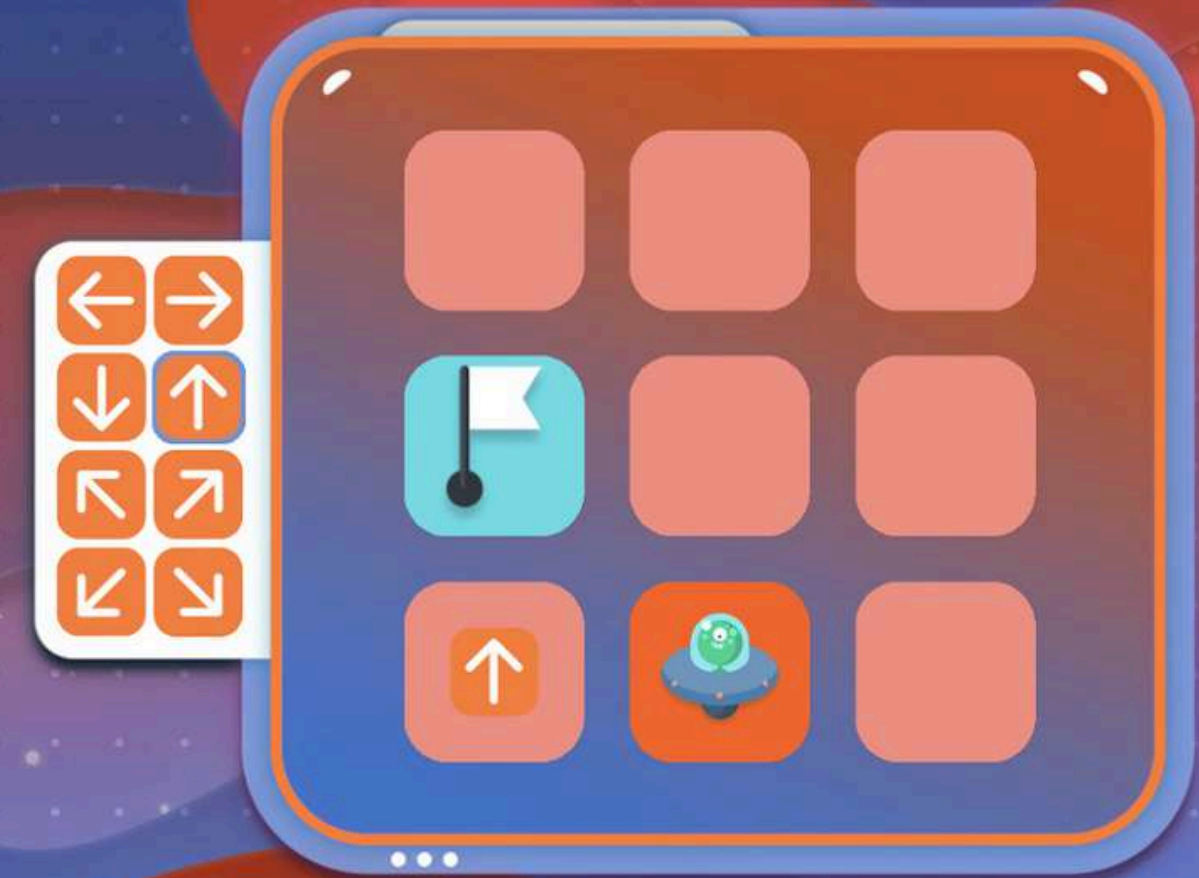




# Program the way

The task of the participant is to lead the spaceship to the flag. There are arrows with different senses and directions to use. To set an arrow, click on it and then place it on any field of the board. The arrow points to the next space the ship will be on. With one selection of the arrow, you can set several of the same on the board. A superimposed arrow on the same square that previously had another arrow cancels the previous one. To remove an arrow from the board, click on it. The number of arrows set does not matter. Click on the ship to launch it. Then it goes all the way set by the arrows. The ship always chooses the shortest path indicated by the arrows. When arranging the road, avoid the bombs that end the game with failure. If the arrow leads the ship to an empty space or off the board, the activity fails.

The activity is successful when the ship reaches the flag. The number of stars on the final screen depends on the efficiency of the road. The fewer arrows used, the more stars.





# Match the towers

The task is to connect the tower from the bottom of the screen with a suitable projection at the top. To do this, click on one element from one row and then on the correct one from the other. The selected item selection will be highlighted in green, and an arrow will appear between them when connected. The direction of the arrow does not matter. Items from the same row cannot be combined. If the connection was not correct, the elements will connect with an arrow, but you can still change their connection. The next call cancels the previous one. If the items have been connected correctly, they will disappear from the screen. The activity ends successfully when all the elements are connected correctly.

The activities differ in the colors used between the towers on one board.

While, for example, in the first activity they are not repeated, in the second level the same colors can appear in several towers on one board.





# Where is the monster?

There are three activities to choose from with different levels of difficulty. The first one has no time limit. The second activity has 1:30 minutes to find monsters, and the third activity has 45 seconds.

At the beginning, there will be a set of three creatures that the participant may know from other planets. They must be remembered, because they must be found. Then click anywhere to make the board appear. After a while, the clock will also start. With a magnifying glass, guided by a pen or cursor, you can x-ray the houses and other elements on the board.

Once you find a character, press on it with a pen to deselect it. When all the characters are found, the activity ends successfully. The activity fails when you press on a character that was not memorable or time runs out.





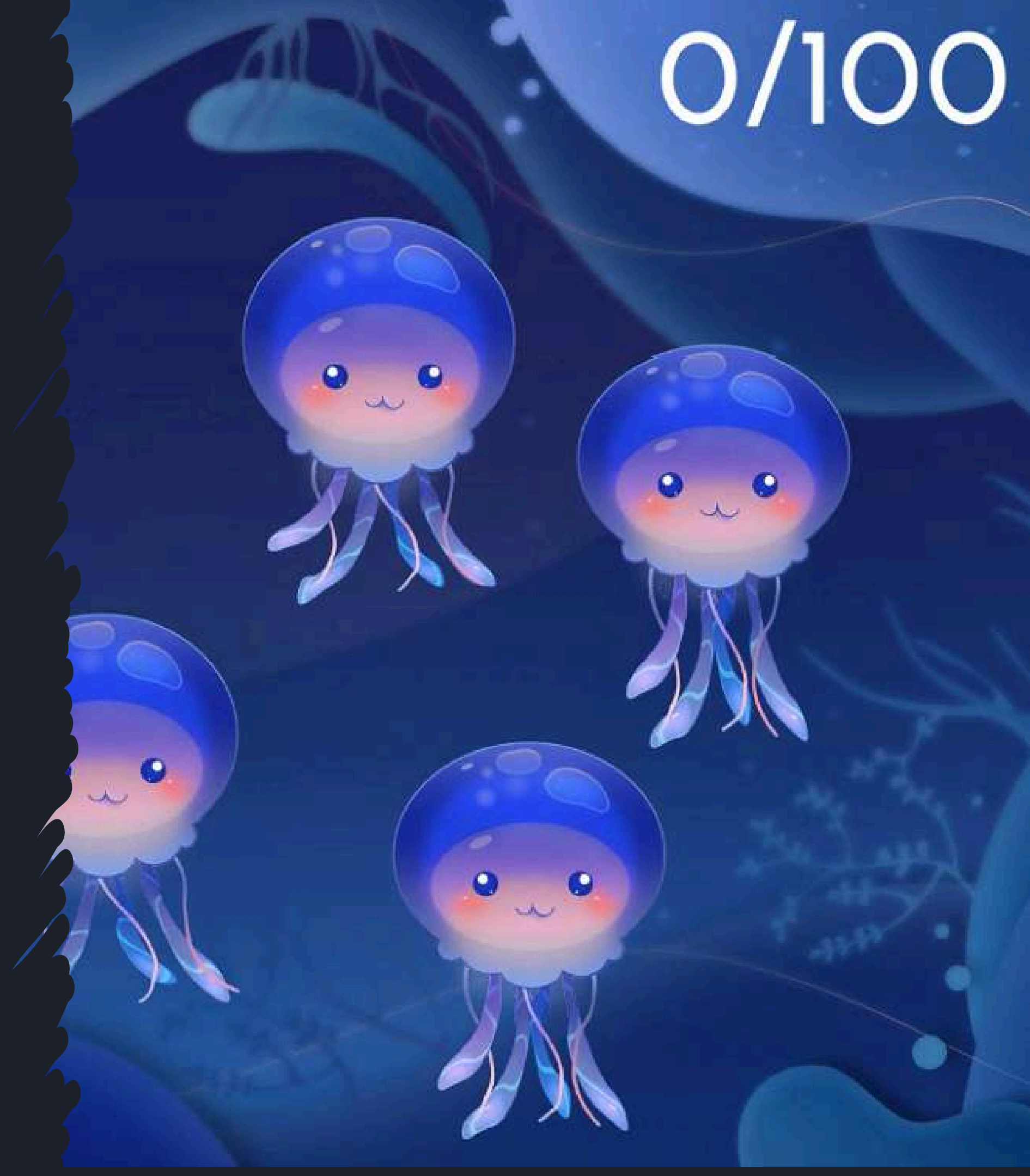
# Magical Jellyfish

Jellyfish will appear on the screen and will slowly move upwards. The task is to hit 100 jellyfish to complete the activity.

The levels differ in the size of the jellyfish.



0/100



The planet in educational practice



# Colorful paper towers



## Knowla's Activity: Match the towers

**What you need:** sheets of paper, a pencil, crayons/paints/markers of different colors, glue, scissors, a template for building cuboids with different lengths of sides (in classes, after discussing spatial figures, students can be asked to prepare their own prototypes, they can be with a square base, but they don't have to)

After starting the activity, explain to students the rules: the top row is the top view, the bottom row is the side view. Students should take a moment to familiarize themselves with the app through play.

Then divide the students into groups. The task of each group is to prepare three sets of cuboids with different lengths of one side. They should use different colors, although they can be repeated between layers. After making the cuboids, they can place the appropriate layers on top of each other. They can be arranged in a pattern from largest to smallest, but they don't have to. The task of the students is to draw on the cards with the appropriate colors the top and side views of the resulting figures.

When all groups have finished, they exchange the resulting figures and rolls. The next group, based on the throws, is to recreate the previously arranged figures.

When done correctly, the game can be repeated on the same sets of blocks or after mixing the spikes of the whole class.



# Which hand is better?

**Knowla's activity: Draw light on the trace, Two-handed light drawing**

Pupils check how precise both hands are. A person has two approaches to the "Draw light on the trace" activity. The first is done with the right hand and the second with the left hand. The child will be able to assess which hand is better for him, more natural, and whether he managed to pass the activity in both cases (an exact reflection of the pattern is required here). You can talk to students about right-, left-, and ambidextrousness here. Finally, he can check the simultaneous coordination of hands in the activity "Two-handed light drawing".

# The floor is lava

## Knowla's Activity: Follow the trail

Who will survive the longest in lava? To find out, you can organize competitions for students. One of the people moves around the board, he can only stand on the rock supports that appear. Stepping on lava means failure. The other students count how many rocks the participant managed to stand on without touching the lava. At the same time, they look at whether he touched the lava with even a finger, because it ends in failure. Persons The player with the most rock passes wins.

If students are getting too easy, you can set a top tile limit after which they get into the winners' group.

It's **smart** to play. 



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