Code4Europe
28 March- 1 April 2022

Name of game: Code colour

Materials:

A shoe box, small cotton balls of different colours, plastic caps, hard paper to block the view of the code, paper, pencil.

Aims: To give students the opportunity to practise and enhance their attention, memory, reasoning and problem-solving skills.

Procedure:

Code colour is a puzzle game in which you need to find a secret pattern. The secret pattern is a set of 4 colours and each turn, you make a guess to get a result. The result can be either ◯ or √ :

◯   One of your guesses has correct colour but wrong position.

√   One of your guesses has correct colour and right position.

Repeat guessing and checking until you find the secret pattern.

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ACTIVITY NAME: Save Energy game

MATERIALS AND THEIR FEATURES: A dashboard with a snake consisting of 30 cells with images painted by the students depicting good practices in the area of their home and school highlighting the energy savings. Each image is accompanied by a command that accelerates or delays the outcome at the finish line. Similarly, the 2 stairs and the 2 pipes work between the cells. To conduct the game, 2 pawns and a dice are required, made by the students.

ACTIVITY TIME: 30 min.

AGE GROUP OF ACTIVITY: 7-12 years old

THE GOAL OF THE ACTIVITY: To suggest ways through their everyday life that lead to energy saving, exploring their space, home, school, environment. To change habits and acquire environmentally friendly behaviors through energy saving. At the same time to identify misguided behaviors through the waste of energy that harm the environment.

APPLICATION OF THE ACTIVITY: The game is played by 2-4 players. Each player proceeds as many squares as the dice shows. The winner is the one who reaches the goal first

BENEFITS OF THE ACTIVITY ON THE STUDENT: By closing the "Energy" teaching module, they learn how to save energy by creating a game. They appreciate their cooperation. They develop the ability to investigate and discover actions as well as to link them to their impact on the environment. In a fun way, they understand the decisive role they have in protecting the environment. A sense of initiative and responsibility is developed.
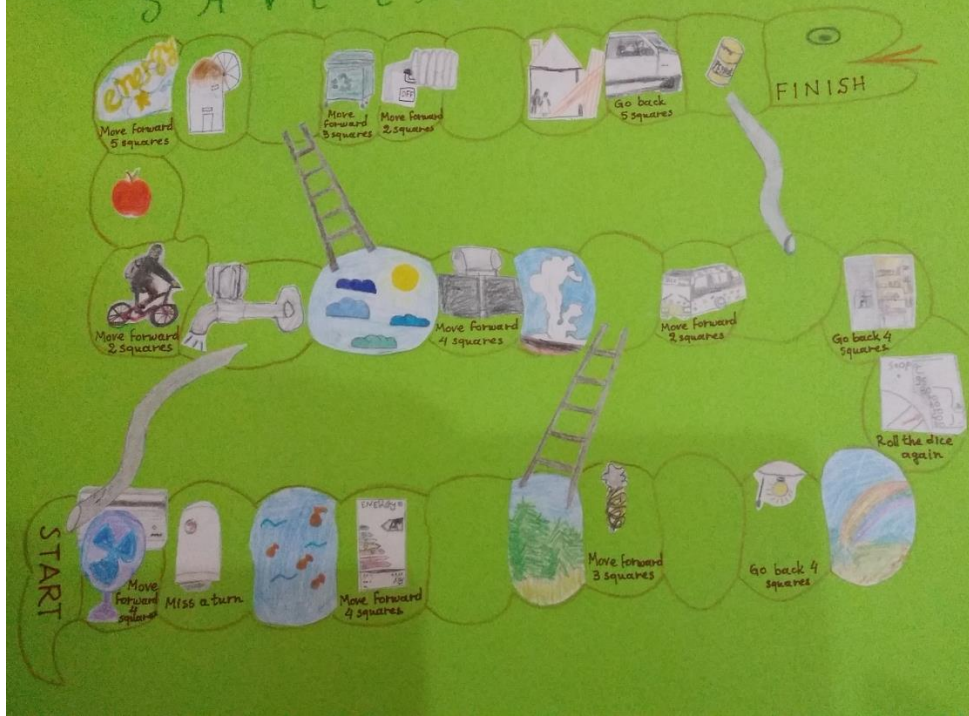
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28 March- 1 April 2022

Teachers: Antigoni Daniilidou, Antonia Georgiadou

Title of game 1: Beebot multiplications
Age of students: 7-8 years old

Aims: To practise multiplications in a fun, playful way. To provide students with the opportunity to promote their logical thinking and spatial awareness.

Materials:
-   A beebot
-   Colour cards with arrows
-   Cards with pairs of numbers to be multiplied
-   A grid with the products of the multiplications

Time: 30 mins

Instructions:

Each player picks a multiplication card (e.g. 4x5) and finds the correct answer on the grid. Using the colour cards with the arrows, he forms the route to be followed in order to reach the correct answer/product of multiplication. Then he programs the beebot accordingly. The players with the most correct answers are rewarded.

<u>Title of game 2</u>: Multiplication squares
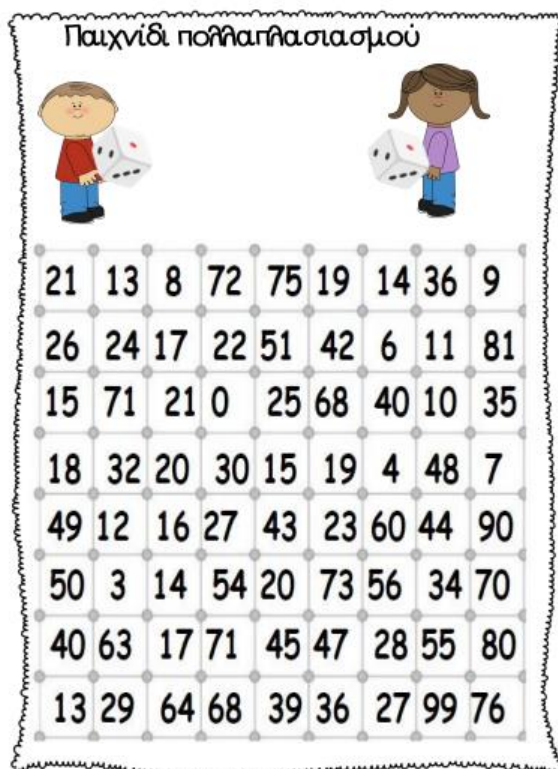<u>Age of students</u>: 7-8 years old

<u>Materials</u>:
- Two colour dice, one orange with the numbers 4, 5 6 7 8 9 and one green with the numbers 3 6 7 8 9 10.
- One 72 square grid with numbers. The numbers on some squares correspond to products of multiplications.
- A different colour marker for each player.

<u>Time</u>: 30 mins

<u>Instructions</u>:
The player rolls the dice and multiplies the numbers appearing on them. He finds the correct answer/product on the grid and draws a line connecting two dots of the square. Once the player draws two lines, connecting two dots of the same square, he gets to colour it using his marker. The player with the most coloured squares is the winner.

Παιχνίδι πολλαπλασιασμού

21	13	8	72	75	19	14	36	9
26	24	17	22	51	42	6	11	81
15	71	21	0	25	68	40	10	35
18	32	20	30	15	19	4	48	7
49	12	16	27	43	23	60	44	90
50	3	14	54	20	73	56	34	70
40	63	17	71	45	47	28	55	80
13	29	64	68	39	36	27	99	76

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Title: Traffic code games

These games were inspired by section 5 of the language book entitled 'I drive safely', 'where we saw and learned the importance of road signs.

Group age: 4th grade

Time: 1 hour

Materials: sheets of paper, drawing pencils, markers, coloured pencils,

Aims and benefits:

- The students get familiar with the traffic signs through drawing them
- They develop their ability to watch and notice carefully
- With the debugging method they learn from their mistakes
- They become more alert to situations
- They learn to follow certain commands
- They enrich their spatial intelligence

a) Memory game procedure

We place all the cards we created with the traffic signs next to each other and we see where each sign is. We turn the cards over and try to remember the position of two of them. Whoever finds

two identical, names the symbol shown and selects the next

player.

b) Traffic signs game procedure

After we painted the signs of the traffic code, we placed them in the special squares. Next to the squares there are the steps that a child reads and guides the child-car. The child car walks on the squares and follows the signs under the guidance of the narrator.

It can be played on a dashboard, too with the Beebot.

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28 March- 1 April 2022

ACTIVITY NAME: Guided tour with code

MATERIALS AND THEIR FEATURES: A dashboard 105×75 of real depiction of the center of Thessaloniki with its monuments, with coordinates of 7×5 squares. A two-fold legend, Greek and English. Electronic equipment: computer-programmable Edison floor robot that will operate autonomously on the map.

ACTIVITY TIME: 15 min.

AGE GROUP OF ACTIVITY: 10-15 years old

THE GOAL OF THE ACTIVITY: They create a map and understand its elements (title, scale, orientation, legend) and its value as a tool. They learn the concept of scale and apply it by transferring a smaller map to a larger area. They distinguish monuments of local and world cultural heritage, monuments that testify to their history and identity. They connect their value with the historical course of the city. They understand the importance of a city's urban plan. They recognize routes they follow on educational visits or on family walks. They propose new routes enriching the map and his memorandum with new destinations. They become guides to younger students or their classmates. The map turns into a robot activity tableau. They are introduced to the concept of programming and robotics. The routes proposed are translated into the programming language. They orient the robot according to the new destinations ...

APPLICATION OF THE ACTIVITY: Children in groups implement virtually different thematic tours depending on the requirements of a subject. Example: Do we want to visit the Byzantine monuments of the city, which route will we choose and with what orientation? The students work together to investigate and locate the monuments on the map. They find the relevant information and fill out the memo. They plan their robot to lead it to the proposed monuments. The educational visit in real space and time will complete the activity of the virtual tour.

BENEFITS OF THE ACTIVITY ON THE STUDENT: They learn to construct a map, to use it as a programming application tool. They acquire skills of technology, engineering and science as they have to give accurate calculations to the movements. They develop computational and critical thinking to solve a problem. In a creative way they complete the learning of a subject. Learning is enhanced, self-esteem is strengthened.

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28 March- 1 April 2022

Title of game: Jungle

Materials needed:
Two grids for each player, a pencil, a rubber

Aims: To help students enhance their spatial intelligence and logical thinking in a playful, fun way, through coding.
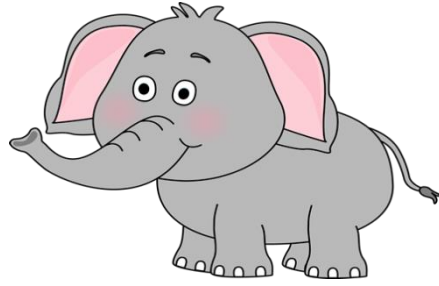
Instructions:

Place your animals in the grid labeled "my territory", in a straight line, either horizontally or vertically, according to each animal's length. You are not to move the animals during the game. Once you place the animals in the grid, the game begins.

Try to find where the opponent has placed his animals by calling out a coordinate, e.g. A-5, and if it's a hit, mark X in the corresponding square in the grid labeled "the opponent's territory", or a dot if it's a miss.
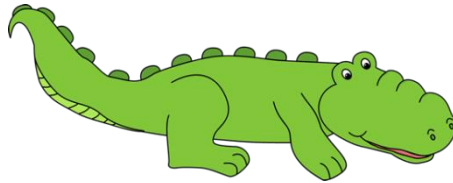If your opponent calls out a coordinate and finds part of one of your animals, say "success" and cross out the corresponding square in the grid labeled "my territory", but do not reveal which animal it was.
If the opponent calls out all the coordinates of one of your animals, say "you've found my _____!" (name the animal your opponent has found)
The player who finds all of his opponent's animals wins.

Jungle

My territory

	1	2	3	4	5	6	7	8	9	10
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										

The opponent's territory

	1	2	3	4	5	6	7	8	9	10
A										
B										
C										
D										
E										
F										
G										
H										
I										
J										

ELEPHANT

5 SQUARES

CROCODILE

4 SQUARES

LION

3 SQUARES

SPIDER

2 SQUARES

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Title of the activity: Paths to school subjects

Students age: 10-12 years old

Materials

A tableau with 5X5 blocks to move, 8 card grids with arrows to follow, 8 blue Geography question cards, 8 green Math question cards, 8 yellow word order question cards, 8 orange Present Continuous function cards, a dice, a bell

Aims

- The students revise Grammar, Geography features
- practise Math functions
- get familiar with the basic values of programming, algorithms,sequence of orders
- cooperate and get accustomed to discipline while playing.

Procedure

The game is played with two players or two groups.

Students have a tableau with 5X5 blocks. They throw the dice to find their turn to start the game. Student A takes a card with arrows and gives orders to student B, to follow on the tableau. Student B can put arrows or can programme the Beebot to move on the tableau according to orders.

Each time student B steps on a question mark student A rings the bell and student B takes one card of the similar colour with the question mark he stepped on. He answers two questions and goes on; if he doesn't answer correctly another player takes his place. The goal is to reach the end of the arrows. The winner is he who answers the most questions correctly and reaches the end.
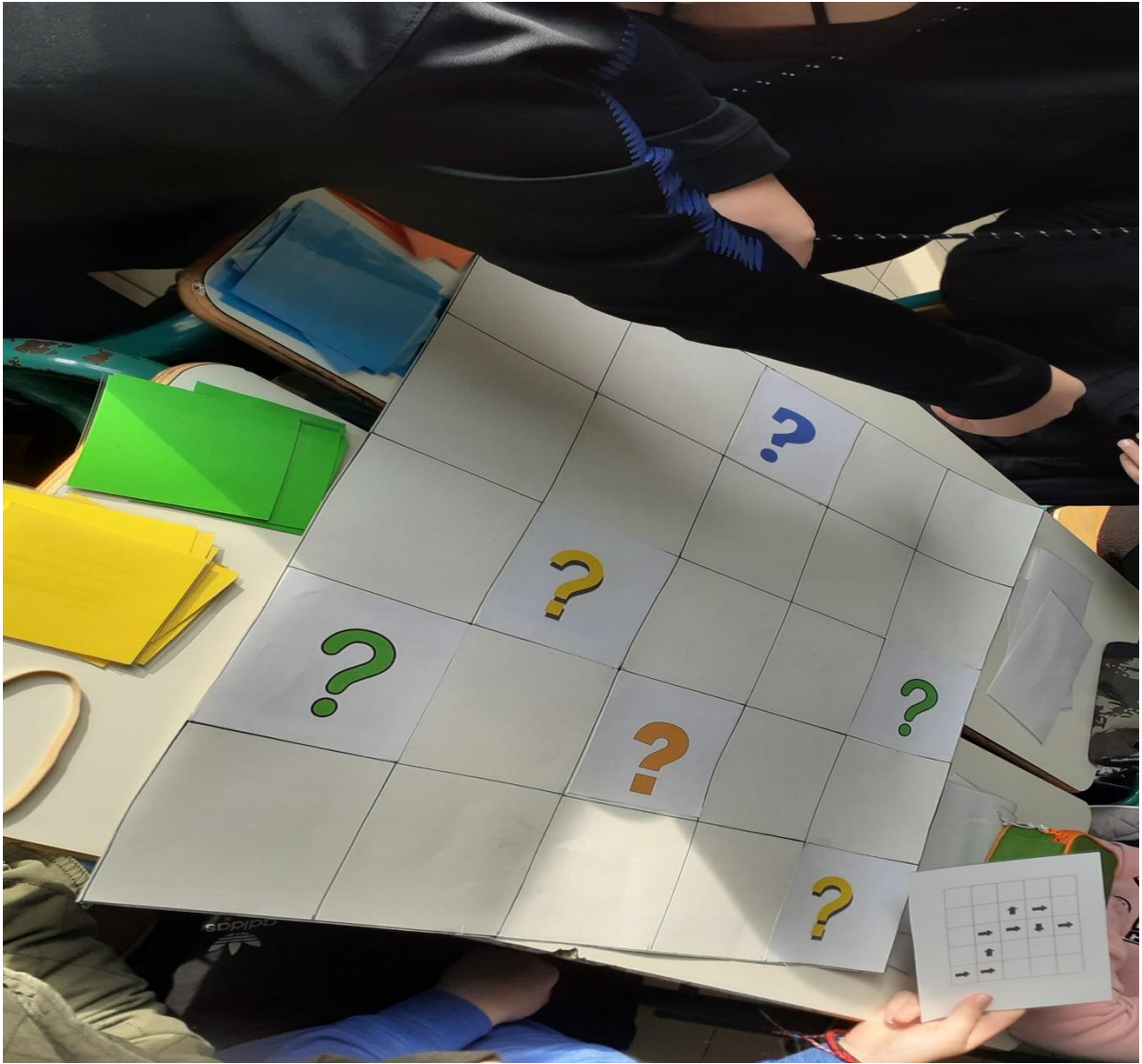
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28 March- 1 April 2022

ACTIVITY NAME: The little cloud

MATERIALS AND THEIR FEATURES: Dashboard with 100 numbered squares. Seven (7) painted squares depict applications from the use of renewable energy sources that lead to the squares with the blue cloud and another 7 depict applications from the use of non-renewable energy sources that lead to the black cloud. Each image refers to its cloud through the path of the corresponding energy source. To conduct the game, 4 pawns and a dice are required, made by the students**.**

ACTIVITY TIME: 30 min.

AGE GROUP OF ACTIVITY: 10-14 years old

THE GOAL OF THE ACTIVITY: To distinguish applications and solutions that contribute to the reduction of air pollution from those that burden the environment with gas emissions. They connect applications to the choice of energy source and its direct effects on the environment**.**

APPLICATION OF THE ACTIVITY: The game is played by 2-4 players. Each player proceeds as many squares as the dice shows. The square with the example of pure energy promotes the player, on the contrary the roll towards the black cloud delays him. The winner is the one who reaches the goal first.

BENEFITS OF THE ACTIVITY ON THE STUDENT:

By examining the module "Energy", they learn about renewable and non-renewable energy sources. With this game they recognize the source of energy whether it is clean or dirty depending on its effect on the environment. They develop critical thinking by correlating human activities with their effect on the environment. Playing pleasantly with their classmates they understand and consolidate the meaning and value of clean energy. The game succeeds in raising students' awareness on environmental issues and specifically on the issue of reducing greenhouse gas emissions that we humans send into the atmosphere. The sense of responsibility develops.

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TRIARA

<u>Instructions</u>:

- This game is played by two people.
- Each player needs three counters. They can use beans, chickpeas, roasted chickpeas or almonds. Players have to use three of each kind!
- Players decide beforehand how many rounds they are going to play. The number of rounds has to be odd (3, 5, 7, etc.) so as to have a clear winner.

<u>Getting ready for the game</u>:

- The youngest player places his counter to a point where lines cross.
- The second player does the same, and they take rounds in placing their counters on the board, until there are no counters left.

<u>Let's play</u>!

- In each turn, the players move their counters to points where lines cross. The aim is to create a straight line of three counters, either horizontally, vertically or diagonally.
- Attention! The counters can only be moved to adjacent vacant spots. That is, they cannot go over another counter.
- The winner is whoever first forms a straight line of three counters.

The beauty of this game is that it can be played anywhere. The board can be drawn on soil, sand, with the use of a stick, or on solid ground, using chalk. Peebles or shells can be used as counters.
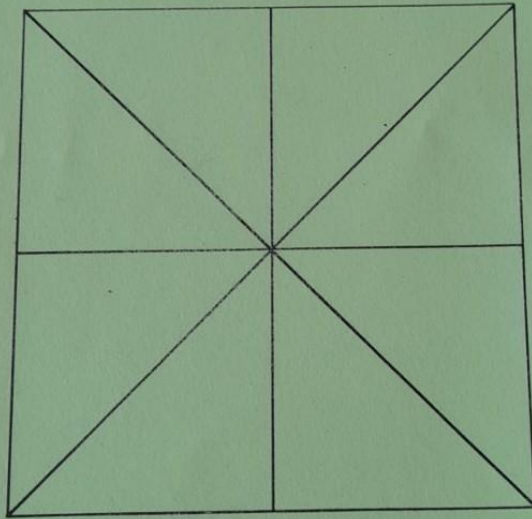
Τριάρα

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28 March- 1 April 2022

Title of the activity: Vocabulary code game

Age group: 9-11 years old

Materials: ten grids with two pictures in them each one, ten blank grids, pens or pencils, 70 cards, 10 short cards with four words each, 5 sandglasses.

Aims

- The students learn or revise playfully the vocabulary about the weather, clothes, food, buildings, body and face
- They try to find the right place of each picture-word on the grid, so they enrich their critical thinking
- They cooperate in groups of four
- They act on their own without being under the supervision of the teacher and develop their self- confidence.

Procedure

The class is divided into 5 groups of four students each. Each group takes a 4X4 grid with a picture on two blocks and another blank 4X4 grid. They also take 14 pictures to place them on the grid so as not to be the same in a line of four, both vertically and horizontally. On the blank grid they are asked to write the words of their pictures in a similar order. The time of completing both the picture-grid and the vocabulary grid is 3' measured by a sandglass.

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28 March- 1 April 2022

Title of activity: **When's your birthday?**

Level: Elementary, Pre-intermediate (depending on your choice of vocabulary)

Language: Buildings and places vocabulary, numbers 0-9

Aim: To practise or revise vocabulary using a code

Materials needed: Flashcards of buildings and places,,Whiteboard, whiteboard marker

Procedure:

a) Introduce new lexis using flashcards. It can work with any new vocabulary.
b) Board flashcards and number them. For example:

1. house
2. block of flats
3. supermarket
4. post office
5. café
6. bank
7. theatre
8. cinema
9. museum
0 hospital

c) Model by inviting a student to come up and ask you "When's your birthday?"
d) Answer the question using the lexis corresponding to the digits of your date of birth (e.g. block of flats, café, hospital, cinema, house, museum, museum, supermarket = 25/08/1993). The student writes your date of birth on the board. Check to confirm whether he/she got it right or wrong. You can repeat modeling, this time the student dictating you his/her date of birth using the lexis and you writing the date on the board.

e) In pairs, students ask each other and answer, following the same procedure. To expand the activity and maximize practice time, students can change pairs and repeat this short, coded dialogue, or ask about another member of their family, e.g. "When is your brother's birthday?"