CLIMATE BOX

Module 2. Topic 2.2.2.
Examples of play-based task and training methods
for the topic "climate change" based on the materials
of the "Climate box"

Empowered lives.
Resilient nations.

Introduction

The game is one of the unique forms, it is a conditional entertaining activity aimed at the formation of knowledge, skills and abilities. As a type of learning session, games implement a number of principles of play-based and active learning, which differ by the rules of game activity, a fixed structure and grading system.

A distinctive feature of these games is a game situation, which is usually used as the basis of the method. In the game, the participants ' activity is formalized: there are rules, a strict grading system and strategies. It can be a team game or individual, in both cases, the main task is to win.
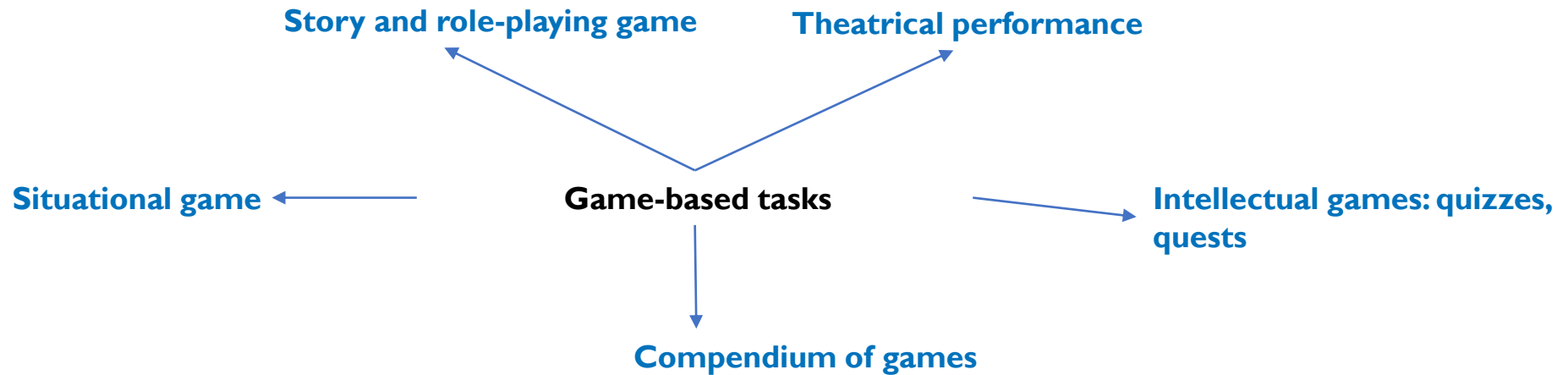
In educational terms, the progress of participants allows the teacher to determine the knowledge level and the ability to put knowledge to use.

The game is almost always a competition. The competitive spirit in games is achieved through an extensive activity grading system of participants in the game, which allows you to see the main aspects of students ' game activities.

Introduction

So what is **the progress** we can see in learning through **games** : the digestion of material at the traditional lecture presentation is about 20% -40%, but in the business game is whole 90%.

Story and role-playing game

Theatrical performance

Situational game

Game-based tasks

Intellectual games: quizzes, quests

Compendium of games

The essence of the role-playing game is to create situations in which each participant gets a fictitious name, a social role: a journalist, an employer, an environmental expert, climatologist, etc., and the moderator directs the conversation.

Example of a role-playing game named "The Reduction of the Load on the Climate":

Situation 1: In the city some people decided to build a waste burning plant. There is a mayor who proves the need of this plant, since there is no place to take out the garbage. Ecologists are convinced that this can have a bad impact on the ecological situation of the city. There are other experts who believe that burning garbage will not only harm the ecology of the city, but also greatly increase CO_2 emissions into the atmosphere, which will increase the load on the climate. They offer alternative ways to manage waste. Representatives of social and communal services discuss different options.

Situation 2: There are large traffic jams in the city, a large number of vehicles, and a large amount of exhaust gas. What should we do to solve the problem?
Role-playing discussion: expanding roads by reducing roadside landscaping, or building a bypass road, or open new parking lots, or exit on even and odd numbers? Scientists clearly show which of the options will reduce only gas pollution from exhaust gases, and which solutions can reduce CO_2 emissions into the atmosphere.

Examples of Games
Situational Game

Situational games are a method of social training in which participants act in accordance with the situation. At the same time, they should follow both the objective and subjective ideas about how to act in such situations.

Situational games are similar to role-playing games in their organization and goals.

Examples of Games
Theatrical Performance

After studying the material, students should **prepare creative scenes** related to the problems of climate change.

There is an example of a humorous theatrical performance named **"The Adventure of Cellulose"** prepared by participants of the Russian children's center "Orlyonok", after a lecture on climate change topic .

The Director of a pulp and paper mill is a rich merchant. He tells people how much he cares they have first-class paper in the office, in everyday life, so that they buy goods in the best packaging. And he keeps asking foresters to cut down more and more trees. Trees complain that they are becoming less and less, reminisce their "dead" brothers, many of whose species can not be restored, and tell about their benefits for a man. But the forester comes again and again to cut them, and in the end of the performance there are no trees left at all. The forester is trying to fix the situation, planting new seedlings, but it takes too much time to grow. What is the way out? Young naturalist appears and tells us how many trees can be saved if we hand over waste paper. The merchant makes a deal and starts producing paper from waste paper. All the participants of the performance are happy, appear on the stage and call on all the children to protect the forests, use paper wisely and hand over waste paper, and do not throw it away with the rest of the garbage.

Examples of Games
| Quizzes

Quizzes have different formats:

- cards;
- Lotto, when you get a lot with the question number;
- interactive. The advantage of interactive games is attracting the attention of all participants.

Quizzes are performed not only in the classroom, it can be a hometask assignment posted on the school's website (class, Association, etc.). Answering the questions of such a quiz, the student goes from one stage to another, gaining the appropriate number of points for the correct answers. In the quizzes the teacher can control the participants and their results.

For example:
You create a quiz layout similar to the well-known intellectual game "The Own Game" (rus. "Svoya Igra") using the Power Point program. Participants should choose a question of varying complexity in one of the categories related to the topic "Climate Change". The harder the question, the more expensive the face value and the more points you can get for the correct answer. If the answer is incorrect, the right of reply is transferred to another participant (or another team).

100	150	200	250	300	350
100	150	200	250	300	350
100	150	200	250	300	350

What substance cannot be obtained from oil?

A – glass
B – rubber
C – plastic
D – gas

MENU

An example of the playing field   **An example of the question**

Quests combine active games and intellectual games, as participants need to solve a number of tasks to be able to move further. A type of quest is a game "Stations".

Playing conditions

Number of players	Not limited
The task	To collect the world map and score the most points
Equipment	The "Climate Box" include: a set of cards "Quiz for School Children", a poster "How to Reduce the Carbon Footprint", a crossword puzzle and a test "My Carbon Footprint". Additional materials: Red List of the region, printed world map

The game is based on a step-by-step passage of stations, each of which is a specific task based on the materials of the topic "Climate Change". Before the game, the world map is pre-printed and cut into the number of parts equal to the number of stations. There are 7 stations in this game, the last one is **the finish line**.

Game rules

Team captains receive a route list with tasks that they should do at the stations. At each station, participants earn points according to the results of completed tasks, and receive a fragment of the world map. At the last station, you need to put all the fragments together into a whole map. The winning team is determined, according to the results of completed tasks at all stations.

Examples of Games

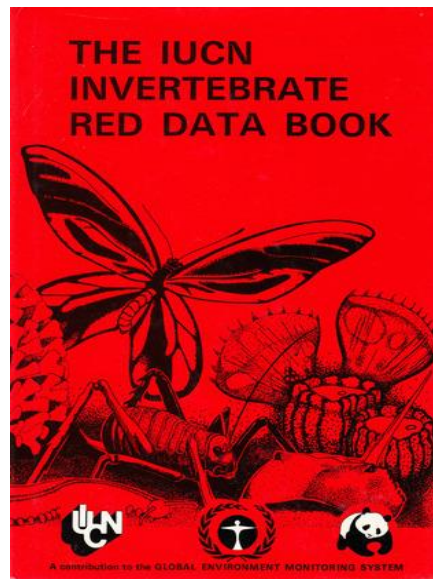## | Quest. Game "Stations " "CO$_2$NSERVE! CO$_2$MBAT! CO$_2$OPERATE!"

Station 1 - " Eco-station"

Students need to choose 5 quiz cards from the "Climate Box" and answer the questions

Station 2 - " Red List"

You should name the animals and plants listed in the Red List of the region in 1 minute.

Station 3- "How to reduce carbon footprint"

Find and name **3** objects that increase CO$_2$ and **3** objects that reduce it, using the poster "How to reduce the carbon footprint" from the "Climate Box ".

Examples of Games

| Quest. Game "Stations " "CO_2NSERVE! CO_2MBAT! CO_2OPERATE!"

Station 4 – "Energy saving in the house"

Participants need to remember and name as many ways to save energy in the house as possible in 3 minutes.

Station 5 - "Crossword Puzzle"

The crossword spells vertically: WEATHER & CLIMATE
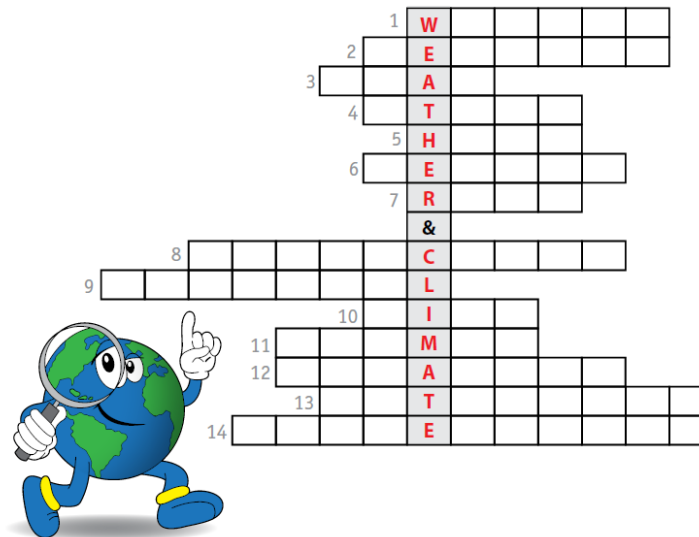
The participants solve the crossword

Station 6 – Test "My carbon footprint"

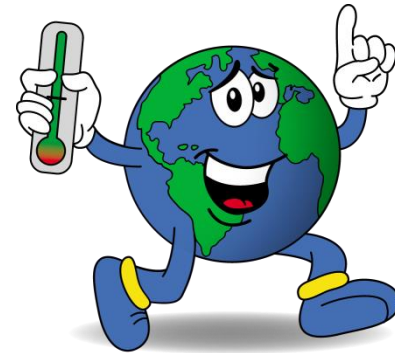Participants should choose the correct answer and get a certain number of points.

| Quest. Game "Stations" "CO$_2$NSERVE! CO$_2$MBAT! CO$_2$OPERATE!"

Station 7 - the "Map"

At the last station, all participants need to put all the fragments together into one map.

Examples of Games
| Quest. Game "Stations" "5 steps"
(developed in Uzbekistan)

Before starting the game, all participants get a route list, pass stations according to this route and get points for correct answers.

Station 1- Participants go to the first station and get the task: "**Experts say that greenhouse gas emissions should be reduced by almost 50 %. What can we do? Try to write recommendations in "verse".** Teams come up with ideas on how to reduce greenhouse gas emissions in the atmosphere when using cars, electric vehicles, and other suggestions, and make a poster with poems.

Station 2 - Using the route map, participants find the second station and get a second task. *The task: "By 2050, experts recommend getting 85 % of energy from renewable sources. What are these sources and how can they be used in our school?"* Teams come up with the ideas using of solar, wind, and water energy in the school, making a plan for the reconstruction of the school. They get additional points for recommendations on energy saving.

Station 3 - At the third station, participants get the following task**: "Experts believe that the extraction and use of coal must be stopped completely. Why? Mark the places on the map where it's reasonable to generate alternative energy in our country."** Students talk about the country's coal reserves, the danger of pollutants and greenhouse gases, the exhaustible resources, the dangers of coal mining, and do tasks using the map.

Station 4 - Using the route map, participants find a task hidden near the finish line. *The task: "Experts believe that greenhouse gas emissions into the atmosphere must be minimized by 2050. How can this be achieved in our everyday life? Convince the first-grader of the need to save energy."* Teams tell a prepared pupil how to save energy in everyday life.

Station 5 - Finish Line! The jury summarizes the results and awards the winners.

Examples of Games
Compendium of Games "Climate Game"
(developed in Kazakhstan)

Playing conditions

Number of players	2-30 players
The task	Guess the term you have got on the topic "Climate Change Problem"
Equipment	30 cards with terms

About the game

The aim of game is to fix students' knowledge related to climate change topic.

Game rules

- Before the game starts, the players sit around the table so that they clearly can see each other. The moderator randomly sticks cards with terms to the players' foreheads or upper clothing (so that the player can't see what is written).

- Each player asks all other players 2 questions, the answers can only be "Yes" or "No". The player who gives wrong answer, loses his turn. After getting answers for 2 questions, the player has the right to try to guess their own term. If he's right, the player is announced the winner. If he is wrong, the move goes to the next player - clockwise.

- The winner is the player who first guessed his own term. The game is over when the last player who guessed correctly becomes the leader in the next round. Also a team-to-team group game is possible.

Examples of Games
Compendium of Games "Eco-Monopoly"
(developed in Kazakhstan)

Playing conditions

Number of players	2-6 players
The task	Earn the biggest capital by the end of the game. Before the game we recommend setting a time limit.
Equipment	Playing field, 6 chips, a set of 88 cards (16 "Owner" cards, 50 "Choice" cards, 15 "Chance" cards, 6 "Technology Patent" cards, 1 "Rent Remission" card), 2 dice, 1 pack of " Money "(game bills with different nominal value)

About the game

The idea of the game is to gradually pass the playing field using various features of a particular segment, depending on the position of the player's chips. The game is a model of behavior of economic agents, who is desired to earn money not by traditional, capitalist methods, but by rational use of natural resources (by accumulating green "Climate-Friendly" cards instead of brown "Climate-Unfriendly, increasing the carbon footprint").

An example of the playing field

Playing conditions

Number of players	Unlimited
The task	Collect the broken parts of words as quickly as possible so that they mean the meteorological elements that determine the weather and paint each word with a separate color
Equipment	Printed copies of the sample for the game (for the number of participants), color pencils

About the game

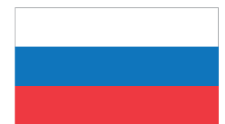The goal of the game is based on checking and fixing terms on topics related to climate change.

Game rules

•   The game is for work in teams. Each team gets a card with a task. It needs to collect the broken parts of words as quickly as possible so that they mean the meteorological elements that determine the weather (a total of 6 words).

•   There are some traps(extra syllables) on the field that complicate the game.

CLO	HU	RA	RE
MOS	UD	PI	CI
TU	WI	SCO	GS
PRE	TA	MI	ND
TEM	DI	DIO	BI
FO	TION	PE	TY

THANKS FOR YOUR ATTENTION!

UNDP

Empowered lives.
Resilient nations.