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LESSON SCHEDULE:

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| **PUBLISHED PART:** |  |
| **ITEM:** | □ NATURE |
| **TARGET GROUP:** | □ 6th GRADE STUDENTS |
| **TOPIC:** | **Deserts of the world** |
| **GENERAL PURPOSE** | * describing the interdependencies between environmental components in the landscapes of hot and icy deserts
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| **OPERATIONAL GOALS** | Student* knows the types of climate in which hot deserts and ice deserts occur,
* describes the natural conditions in deserts,
* gives examples of animal adaptation in desert landscapes,
* explains the interdependencies between landscape components in hot and ice desert areas.
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| **METHODS** | * Lecture
* individual work
* Practical exercises
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| **FORMS:** | * Presentation slides
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| **TEACHING RESOURCES:** |
| ☒ Presentation | □ Exercise**individual**: : | □ Exercise**group:** | □ **Quiz** | □ Test |
| □ Multimedia task on**platform** | □ Test | □ Infographic | □ Film fragment: | □ Animation |
| **downloadable worksheet** | □ Poster | □ Board: | □ Other: | □ Other: |
| **DESCRIPTION OF THE LESSON** | We have already become acquainted with several landscapes of the world where the prevailing climatic conditions force humans, animals and plants to adapt appropriately. |

Another landscape on Earth is deserts, both hot and cold. A desert is an area without water, with high temperatures during the day, and poor animal and plant life.

When going to the desert, always take a large supply of drinking water with you. The recommended standards for drinking water consumption in summer in the desert at a temperature of 40-50 degrees C are 4-5 liters per day. If you have to walk at night, the norm increases to 7-8 liters of water per day, and if you do heavy physical work during the day, you will use up to 15 liters per day.

How you drink water is important. Our body uses water most efficiently when we drink it frequently, systematically and in small sips.

Hot tea quenches thirst best. Drinking cold drinks straight from the fridge increases thirst and may also be harmful to our health.

Wounds and scratches heal much worse in this climate. In Poland, it dries within a few minutes, but in Egypt it can bleed for up to 3 days.

What to eat ?

In hot climates, carbohydrates should be the basis of the diet. Eating mainly carbohydrates increases your ability to work and reduces the amount of urine you excrete.

The dose of mineral salts and vitamins should also be increased, with particular emphasis on vitamin C, which effectively supports immunity.

1. Introduction.
	1. Landscape maps of Africa, Asia, Australia, the Arctic, Antarctica - map analysis, finding areas of hot and cold deserts
	2. How is a desert formed? - fragment of a nature film
		* features of the desert landscape (poor vegetation, little rainfall, high temperature, strong wind, sparsely populated areas)
2. Development

PROJECT - "Life in deserts".

* 1. We explain to the children that they will work in groups, developing subsequent issues
		+ each group will deal with one of the continents with a hot or cold desert,
		+ get to know the cuisine of a given region,
		+ they will perform their own experiments,
		+ find on the Internet what the houses of people living in this area look like,
		+ they will prepare the materials needed to build a model of an igloo, a Bedouin tent, a Mongolian yurt - they will make these models,
		+ explain the adaptation of animals to climatic conditions (polar bear, camel, emperor penguin, kangaroo, bactrian).

- we remind you about safety rules during construction

models,

* 1. We document the work related to the preparation and construction of a tent, igloo, yurt - we take photos or record short videos, of course with the help of the teacher,
	2. We develop the collected information, observation results from experiments, photos and other materials from individual groups together

- we create a guide.

1. Summary.
	1. Together we prepare healthy ice cream for children and a warming drink for the toddler

Tasks for groups

Group I - Sahara (Africa), oasis, Bedouin tent, camel, desert cuisine, experience - moving dune - on a tray we make a hill with

sand (dry), then use your hand or a spoon to pour the sand from the left side of the hill to the right or vice versa, just like the wind does.

By constantly pouring sand in one direction, the hill will shift, i.e. our sand dune will move.

1. group - Gobi desert (Asia), Mongolian yurt, Mongolian cuisine, selected animal of the desert,

experiment - frost - we put an empty plastic bottle (1.5 l) in the freezer for 1 hour, after taking it out the bottle is distorted, i.e. the steam contained in it has been frozen and a white frost has formed), now just put it under a stream of warm water and the bottle recovers former shape.

1. group - ice desert - Greenland, Inuit, igloo, Greenlandic cuisine, polar bear,

experiment – ​​pour water into a plastic bottle (1 l), close it and put it in the freezer for a few hours. Water increases in volume when it freezes, causing the bottle to burst. We observe the same phenomenon in nature - water penetrates into the cracks of rocks, freezes and bursts the rocks, causing them to crumble.

1. group - Antarctica, scientists, emperor penguin, research station, what do the inhabitants of the station eat,

experiment – ​​iceberg – pour cold water into a liter jar and add a piece of ice. A small part of the ice block protrudes above the water level, the rest is under water -

- this is the behavior of an iceberg, which is a threat to ships. Most of the mountain is underwater, we can't see it.

1. group - Australian deserts, Australian Aborigines, their cuisine, kangaroo,

hunting,

experiment - tongue battery - roll a piece of aluminum foil into a strip or roll, touch one end of the foil to a steel spoon, place the free ends of the foil and spoons against the tongue so that they touch it close to each other, but do not touch each other. You will feel a slight tingling sensation. Once you separate the spoon and the foil strip, the tingling stops. The spoon, aluminum foil and tongue formed a kind of battery, a voltage was created. In this experiment, the current generated is very small and completely safe for health.

Recipes

1. Healthy sugar-free ice cream

Strawberry ice cream - ingredients: 2 cups of strawberries,

½ cup of raspberries,

½ cup of water,

¼ cup of dried stevia leaves,

ice cream molds and wooden sticks,

preparation: mix all ingredients, fill ice cream containers with the mixture, insert a stick into each stick and freeze for at least 2 hours.

1. Winter compote with spices.

Ingredients: 3 apples, 2 pears, 4 dried plums, 4 dried apricots, 3 slices of ginger, a pinch of cinnamon, honey for sweetness.

Preparation: add all ingredients (cut) to 2 liters of boiling water, cook for 40-60 minutes, when the compote cools down, pour into a glass and add ½ teaspoon of honey