LESSON SCHEDULE:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **PUBLISHED PART:** |  | | | |
| **ITEM:** | □ NATURE | | | |
| **TARGET GROUP:** | □ 6th GRADE STUDENTS | | | |
| **TOPIC:** | **Forests of the equatorial and temperate zone** | | | |
| **GENERAL PURPOSE** | * comparison of humid forest landscapes * equatorial and temperate forests * familiarization with the structure of the stem and bryophytes | | | |
| **OPERATIONAL GOALS** | Student   * lists the layers of humid equatorial forest and the layers of temperate forests * knows the structure of the stem * gives examples of human activity in the forests of the equatorial and temperate zones * reads climatograms and makes comparative interpretation of the data * points on a landscape map | | | |
| **METHODS** | * Lecture * individual work * Practical exercises | | | |
| **FORMS:** | * Presentation slides | | | |
| **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** | Imagine a forest where the trees are huge and reach up to several dozen meters high. Their crowns cover the sky so effectively that it is dark near the ground. This forest is extremely humid - heavy rains fall almost every day. This is what equatorial forests are like.  Lush vegetation absorbs and releases so much water into the atmosphere that even on rainless days the air is saturated with moisture. Day and night last 12 hours all year round.  Of all terrestrial ecosystems, equatorial forests absorb the most carbon dioxide and produce the most oxygen. | | | |

These forests grow citrus fruits and other plants that find a place in our daily diet.

1. Introduction. 1.What is a forest?

* forest (forest biocenosis) – a vegetation complex specific to a given continent,
* forest taxonomy annex

2.Temperature and precipitation in the equatorial and temperate zones

* analysis of atlas maps

1. Development.
   1. Equatorial forest and temperate forest - fragment of the film,

* forest layers – comparison
  1. Forest biocenosis as a component of the ecosystem 3. Plants and animals of these two zones
* find information about animals and natural vegetation of the equatorial and temperate zones - group work,

1. How is a plant stem constructed?
2. Among the plants of the equatorial zone, sugar cane is cultivated, known to man for 10,000 years, from which cane sugar is obtained.

* sugar substitutes

7. Toucan and black-handed spider monkey app.

own work

1. What do people in the equatorial forest zone do? Use various sources of information.
2. Create your own graphic signs to make it easier to remember the names of landscape zones on Earth. Draw them in your notebook.

names of zones: ice desert, tundra, taiga, deciduous and mixed forest, steppe, Mediterranean vegetation, semi-desert, desert, savanna, equatorial forest.

1. Potato wił, also called yam, patata, kumara or sweet potato, is used in various dishes.

* learn about its nutritional value,
* ask an adult to help you prepare a simple sweet potato dish, e.g. fries, casserole or boiled sweet potatoes - compare the taste of sweet potato with the taste of potatoes.



☺

* be careful when cooking

Equatorial zone crops:

sweet potatoes, cassava, sugar cane, rice, corn, bananas, oil and coconut palm, cocoa tree, rubber tree,

Cane sugar is obtained from sugar cane (known for 10,000 years), which is 4 times more expensive than

beet sugar.

The average Pole consumes approximately 44.5 kg of white sugar per year. This is an impressive result, but is it something to be proud of?

The caloric value of both products is as follows:

* 100 g of white sugar - 400 kcal,
* 100 g of cane sugar - 387 kcal.

Excess sugar is dangerous to health because it increases the risk of cardiovascular diseases, hypertension, obesity problems, overweight and diabetes.

Sugar can be addictive, e.g. alcohol or cigarettes. Sugar mostly contains simple sugars, which quickly give us an energy boost, but cause fat tissue to accumulate. We must learn to consciously choose products without added sugar.

Sugar substitutes:

* stevia, is sweeter than sugar, but has no calories,
* xylitol, obtained from birch bark, has 40% less calories than sugar,
* erythritol, 100 g = 20 kcal,
* Maple syrup,
* molasses, black, thick syrup, 100 g = 290 kcal (and white sugar 400 kcal),
* honey, 100 g = 324 kcal,