

Topic: Climate change.

Level: 3rd-4th grade of secondary school, advanced level of English (C1-C2)

Timing: 45 minutes

Aims:

- To present both general (taught in English lessons, Longman, Repetytorium maturalne, Unit 11 „Nature”) and specific (taught in biology lessons) vocabulary connected with the topic of climate change.
- To introduce the concept of climate change.
- To make learners aware of cultural and geo-political factors that determine the perception of climate change.
- To help learners understand that learning can be achieved in a second language.

Criteria for assessment

Teacher, peer- and self-assessment processes will be used to assess how well learners:

- Understand climate change
- Describe why and how the climate changes
- Construct and use pre-taught terminology

Teaching Objectives

Content	Cognition
<ul style="list-style-type: none"> • Introduction of the topic • What climate change is • How and why the climate changes • How the problem of climate change is perceived 	<ul style="list-style-type: none"> • Provide learners with opportunities to understand the key concepts and apply them in different contexts. • Enable learners to give examples of climate change. • Encourage knowledge transfer about climate change using visual images. • Vocabulary building, learning and using. • Arouse learner curiosity – creative use of language and learner questions.

Culture

- Identify climate related problems in their own country and other countries.
- Become objective: relativizing the concept depending on the point of view (whether your country is coal dependent or not; whether you live in a rich or a poor country, with warm or cold climate).
- Understand that they can learn no matter which language they are using.

Communication

Language of learning	Language for learning	Language through learning
key vocabulary: climate change, greenhouse gases, atmosphere, to trap heat energy, fossil fuel	Asking each other questions: What do you know about...? Can you tell me sth about..?	Distinguish language to carry out activities.

combustion, greenhouse effect, increase in mean temperature of the Earth's surface, carbon fuels, carbon neutral fuels, biomass, conservation, ecosystem, endangered, environment, extinct, global warming, habitat, intervention, litter, landfills, oxygen, ozone, pollution, population, preserve, rainforest, reuse, wetlands, wildlife	What is the climate change? How did we get there? How to stop the climate change? Ordering: Firstly..., secondly..., thirdly..., finally... Comparing and contrasting Other: How do you spell...? What does ... mean?	Retain language revised by both the teacher and the learners. Make use of peer explanations. Record, predict and learn new words which arise from activities.
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Learning outcomes (what learners will be able to do by the end of the lesson):

- demonstrate understanding of concept of the climate change
- describe what provokes the climate change
- classify information
- engage in visual matching of concepts and images
- use language creatively
- ask and respond to wh-questions about their work
- use a class vocabulary record of new words.

Instruments for assessment:

- T monitors group and individual activities
- Learners successfully play the bingo game.
- Learners interact with their partners.
- Ls ' participation in all tasks and activities.
- Ls complete information gaps.
- Ls asks each other questions "What have you learned today?".

Resources

Worksheets, whiteboard, pens, leaflets from Pinterest; Skinner, Gary and Ann Skinner: Revise Salters-Nuffield, AS/A Level, Biology A, Revision Workbook, p.84, 175)

Teaching and learning activities

Warm up exercise. "Climate change – associations?" (5 minutes)

(warm up/ scaffolding activity on the board including brainstorming, resulting in a mind-map)

Answer:

anthropogenic climate change, greenhouse gases, atmosphere, to trap heat energy, fossil fuel combustion, greenhouse effect, increase in mean temperature of the Earth's surface, carbon fuels, carbon neutral fuels, biomass, conservation, ecosystem, endangered, environment, extinct, global warming, habitat, intervention, litter, landfills, oxygen, ozone, pollution, population, preserve, rainforest, reuse, wetlands, wildlife

Exercise 1. "Burning of fuels leads to global warming" (10 minutes)

"The burning of fuels will inevitably lead to global warming". Read the criticism of this statement and, in pairs, fill in the gaps with the words from the list. Then compare your text

with another pair.

effect **biomass** **surface** **carbon neutral** **heat energy**
greenhouse gases **combustion** **levels** **mean temperature**

(1) in the atmosphere trap (2)reflected from the Earth's (3) Increased (4) of these gases from fossil fuel (5)increase the greenhouse (6) leading to an increase in (7) of the Earth's surface. However, (8) fuels, such as those derived from (9)....., do not, so the statement is not completely true.

Answer:

(1) Greenhouse gases in the atmosphere trap **(2) heat energy** reflected from the Earth's **(3) surface**. Increased **(4) levels** of these gases from fossil fuel **(5) combustion** increase the greenhouse **(6) effect** leading to an increase in **(7) mean temperature** of the Earth's surface.

However, **(8) carbon neutral** fuels, such as those derived from **(9) biomass**, do not, so the statement is not completely true.

Exercise 2. Puzzle “Earth Day everyday” (5 min.)

Two teams compete. One by one, members of each team race to the board to write down a word found in the puzzle “Earth Day every day”. The first team to write down all the 40 words (correctly!) wins.

Earth Day Every Day

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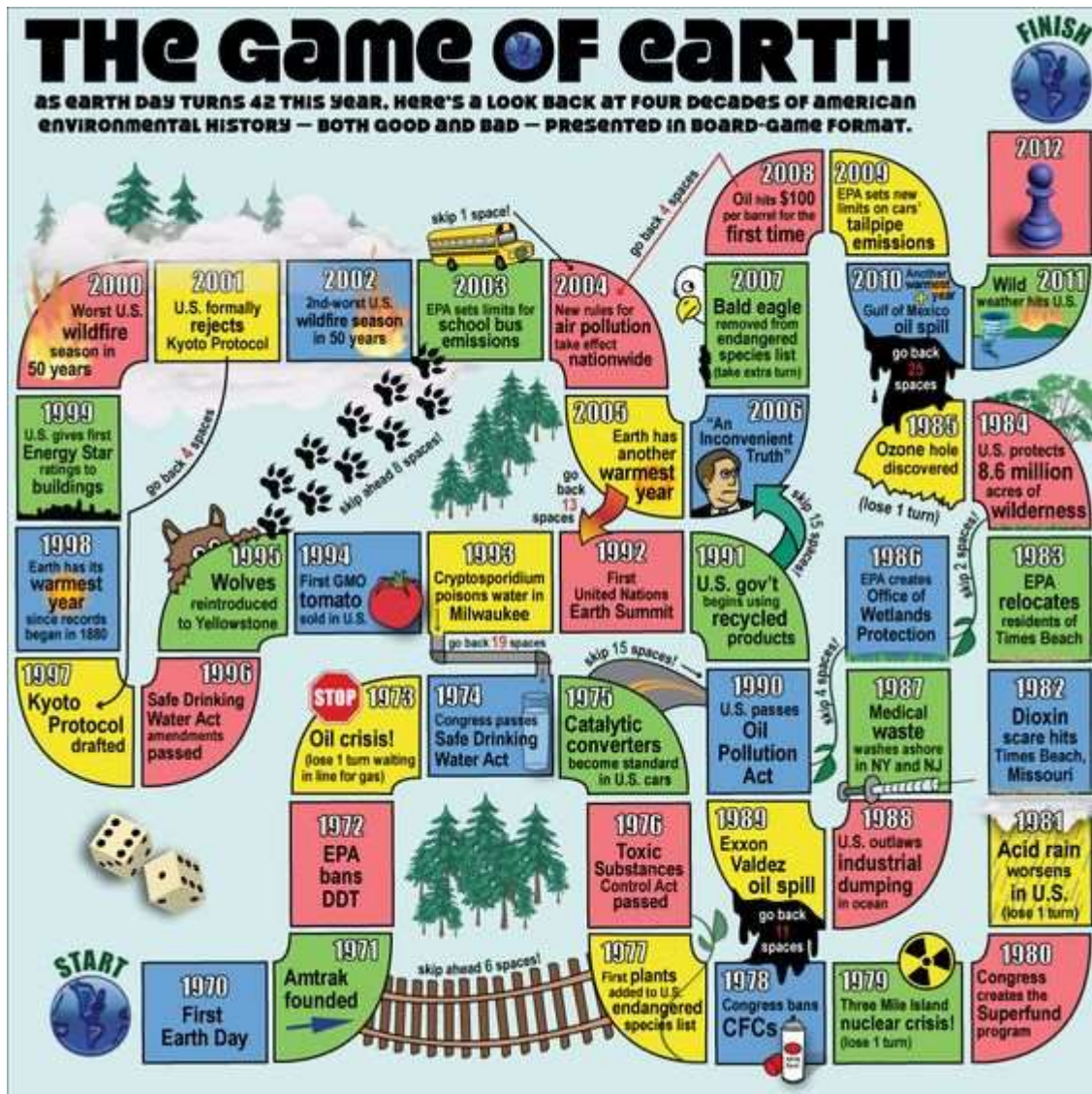


P I Z T S E R O F N I A R E T T I L
 O H N X N O C L E A N T C P H O M E
 L M A P E E I F A C N M S H B O C S
 L A N D F I L L S E O O V O H R S W
 U V I U I N S C M R E S G T U P I A
 T O M R L T O N Y A S P Y O W R S T
 I L A I D E O I Y C U H S S E E O E
 O U L D L R O W T G E E O Y T S I R
 N N S O I V R K O A R R Z N L E B S
 E T L Y W E A R T H V E O T A R M H
 G E N D A N G E R E D R N H N V Y A
 Y E N O I T A L U P O P E E D E S B
 X R E S E I R A U T C N A S S L O I
 O H N G L O B A L W A R M I N G A T
 F O C E A N S L E U F L I S S O F A
 E S T N A L P E O P L E X T I N C T
 A Y D E F S H V M F Q F E B N Y H O

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|--------------|----------------|----------------|-------------|
| AIR | ENVIRONMENT | OXYGEN | RESOURCE |
| ANIMALS | EXTINCT | OZONE | REUSE |
| ATMOSPHERE | FOSSIL FUELS | PEOPLE | SANCTUARIES |
| CARE | GLOBAL WARMING | PHOTOSYNTHESIS | SOIL |
| CLEAN | HABITAT | PLANTS | SYMBIOSIS |
| CONSERVATION | HOME | POLLUTION | VOLUNTEER |
| EARTH | INTERVENTION | POPULATION | WATER |
| ECOSYSTEM | LANDFILLS | PRESERVE | WETLANDS |
| ENDANGERED | LITTER | RAINFOREST | WILDLIFE |
| ENERGY | OCEANS | RECYCLE | WORLD |

Exercise 3. The game of Earth. (in groups of 3-4 students, 15 minutes)

Throw the dice and play the game. The first one to cross the "Finish" line, wins.



Exercise 4. Sum up the discussion (critical thinking, 10 min.)

Take into account different aspects of the climate change, both anthropogenic and not related to the human activity, relate them to the geo-political situation (culture) of a country and try to form your own opinion.