

2. BUDOWNICTWO NATURALNE – MIESZKAĆ LEPIEJ? *NATURAL HOUSES – A BETTER WAY TO LIVE?*

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Podczas zajęć uczniowie i uczennice poznają różne rodzaje domów oraz materiałów budowlanych. Stosując czasownik modalny *should* zrozumieją, czym charakteryzują się domy ekologiczne i naturalne.



2. BUDOWNICTWO NATURALNE - MIESZKAĆ LEPIEJ?
NATURAL HOUSES - A BETTER WAY TO LIVE?

Zagadnienia:

- ▶ Zrównoważony rozwój
- ▶ Zdrowie

Czas trwania:

- ▶ 45 minut

Pytanie kluczowe:

- ▶ Jakie są cechy domów ekologicznych i naturalnych?

Cele zajęć:

- ▶ Poznasz rodzaje domów i materiałów budowlanych.
- ▶ Zrozumiesz, czym charakteryzuje się budownictwo ekologiczne i naturalne.

Związek z podstawą programową:

- ▶ 1.2, 3.3, 4.5, 5.8

Zagadnienia językowe:

- ▶ Czytanie ze zrozumieniem
- ▶ Czasownik modalny *should*

Metody:

- ▶ Dyskusja
- ▶ Burza pomysłów
- ▶ Analiza argumentów za i przeciw

Formy pracy:

- ▶ Praca indywidualna
- ▶ Praca w grupach
- ▶ Praca w parach

Środki dydaktyczne i materiały:

- ▶ Załączniki
- ▶ Karty z obrazkami różnych rodzajów domów (*flashcards*)

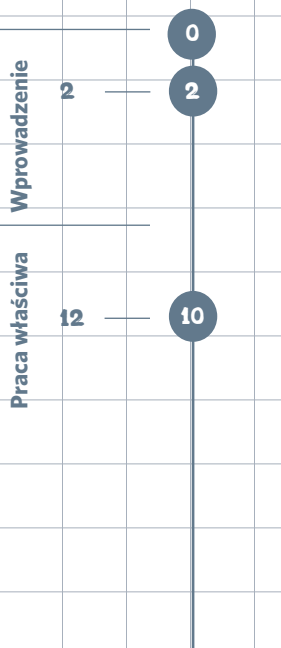
Słownictwo:

- ▶ cottage - chata
- ▶ detached house - dom wolnostojący
- ▶ semi-detached house - bliźniak
- ▶ terraced house - dom szeregowy
- ▶ block of flats - blok
- ▶ studio flat - mieszkanie typu studio
- ▶ penthouse - mieszkanie na najwyższym piętrze
- ▶ farmhouse - gospodarstwo wiejskie
- ▶ chalet - dom drewniany
- ▶ prefab house - dom z prefabrykatów
- ▶ wood - drewno
- ▶ brick - cegła

- ▶ glass - szkło
- ▶ concrete - beton
- ▶ steel - stal
- ▶ mud - błoto
- ▶ straw - słoma
- ▶ sand - piasek
- ▶ stone - kamień
- ▶ traditional - tradycyjny
- ▶ ecological - ekologiczny
- ▶ energy-saving - energooszczędny
- ▶ environmentally friendly - przyjazny dla środowiska
- ▶ appliance - urządzenie
- ▶ heating bills - rachunki za ogrzewanie
- ▶ radiator - grzejnik
- ▶ rainwater storage - magazynowanie wody deszczowej
- ▶ solar collectors - kolektory słoneczne
- ▶ to crack - pękać
- ▶ to fix - naprawiać
- ▶ to heat - ogrzewać
- ▶ to save - uratować
- ▶ to spend - wydawać



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PRZEBIEG ZAJĘĆ:

1. Poproś uczniów i uczennice, aby podali rodzaje domów, jakie znają.
2. Na podstawie kart z obrazkami (*flashcards*) omów różne rodzaje domów i mieszkań. Następnie korzystając z tej samej metody ustalcie z młodzieżą, jakie materiały można wykorzystać do budowy domu.

- Rodzaje domów i mieszkań: a cottage, a detached house, a semi-detached house, a terraced house, a bungalow, a block of flats, a studio flat, a penthouse, a farmhouse, a chalet, a prefab house
- Materiały, które można wykorzystać do budowy domu: wood, brick, glass, concrete, steel, mud, straw, sand, stone

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3. Pokaż uczniom i uczennicom 3 zdjęcia domów i zapytaj, jakie są podobieństwa i różnice pomiędzy nimi.

Wykorzystaj zdjęcia domów: z gliny, pasywnego i z prefabrykatów, które wyglądają jak klasyczne lub nowoczesne domy. Za przykład mogą posłużyć zdjęcia:

- ▶ Dom z gliny: <http://bit.ly/naturalclay>
- ▶ Dom pasywny: <http://bit.ly/passiveho>
- ▶ Dom z prefabrykatów: <http://bit.ly/prefabho>

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4. Uczniowie i uczennice czytają teksty opisujące domy naturalne (załącznik nr 1), a następnie odpowiadają na pytania do tekstu.

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5. Wprowadź czasownik modalny *should/shouldn't*.

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6. Pracując w parach, uczniowie i uczennice wypisują elementy, które powinien posiadać dom naturalny. W tej części lekcji pada odpowiedź na pytanie kluczowe.

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7. Uczniowie i uczennice wykonują ćwiczenie (załącznik nr 2), które polega na dopasowaniu do siebie części zdań.

KLUCZ: 1f, 2c, 3i, 4a, 5d, 6b, 7e, 8j, 9g, 10h

PRACA DOMOWA:

1. Na podstawie odpowiedzi dotyczących elementów, które powinien posiadać dom naturalny, ułóż zdania z czasownikiem modalnym *should/shouldn't*.

Załączniki:

Załącznik nr 1 - *Exercise: Different types of natural and eco-houses*

Załącznik nr 2 - *Exercise: Characteristics of natural and eco-houses*

DIFFERENT TYPES OF NATURAL AND ECO-HOUSES

Read the texts and answer the questions below.

Text 1

Janek lives in a very beautiful, modern house. His parents' friends built it from mud and straw. They didn't spend a lot of money on building materials which are all natural and locally available. What is more, their house is eco-friendly since it doesn't pollute the environment as the materials are biodegradable. Besides, his parents didn't have to hire a specialised team. The house was built quickly, so they saved their time, too. They also saved money for solar collectors which Janek's dad and his friends fixed on the roof to heat water. His family is still saving, because their house is energy-saving. They feel very comfortable in their house, because it is warm in winters and cool in summers. Eco-technology makes this house healthy as it naturally "breathes". Janek who is allergic to almost everything feels great in this house. The only bad part is that the walls which are really thick sometimes crack, so his dad has to fix them. Moreover, Janek's sister, who is afraid of mice, sometimes screams when she finds them playing in the corner of a living room.

Text 2

Marysia is a lucky person because her family almost doesn't pay heating bills. They live in a modern and comfortable passive house. The best part is that the temperature is the same in every room. This is possible because the house is heated by the sun. It was designed and built to use energy from the sun and not to use fireplace or traditional radiators. Thanks to this, it doesn't contribute to global warming because it doesn't use fossil fuels such as coal, oil, gas etc. So Marysia's family is proud to say that they don't pollute the atmosphere because they have limited the emission of CO₂. Besides, the high windows of Marysia's room face the south and there are no trees on that part of the land. There is excellent ventilation so the air in the house is fresh and healthy all the time. However, the cost of building such a house is higher than building a traditional one so unfortunately not everybody can afford to build it.

Text 3

Staś lives in a prefab house which is environmentally friendly. Only natural materials such as wood and clay were used to build the house. His family, who cares about the environment, used natural materials because they are biodegradable. The walls in Staszek's house are really thick to make it warm and energy-saving. His dad also used environmentally friendly paints. Apart from solar collectors for heating water, his family uses special appliances to save even more energy. To save water there are special shower controls and rainwater storage for use in the toilet and washing machine and of course there is a low-flush toilet. From the toilet his dad also saves solid waste for composting. And on the roof his mum plants her own fruit and vegetables so they eat organic and healthy food. His family feels that they live in accordance with nature.

Questions:

- ▶ What is Janek's house built from?
- ▶ In what kind of house does Marysia live?
- ▶ What materials were used to build Staszek's house?
- ▶ Why does Marysia's house have the same temperature in every room?
- ▶ What do Janek and Staś use to heat water?
- ▶ What does it mean that Janek's house "breathes"?
- ▶ What does Staś use to save water?
- ▶ What does Staś have on the roof of his house?

CHARACTERISTICS OF NATURAL AND ECO-HOUSES

Connect the parts to create whole sentences.

- | | |
|--|--|
| 1. People should build ecological and natural houses | a. because they can save water. |
| 2. People should use natural materials to build their houses | b. because emissions from burning fossil fuels contribute to global warming. |
| 3. People should use energy from the sun | c. because natural materials are locally available and biodegradable. |
| 4. People should use low-flush toilets | d. because they can heat water and save money. |
| 5. People should use solar collectors | e. because it won't be warm enough in such a house. |
| 6. People shouldn't use fossil fuels | f. because ecological and natural houses are energy-saving. |
| 7. People shouldn't put windows in passive houses on northern side | g. because it can help them to live more in accordance with nature. |
| 8. People shouldn't use a traditional sewer system | h. because then eco-houses will release their natural heat. |
| 9. People shouldn't be afraid of building natural houses | i. because they can limit the emission of CO ₂ . |
| 10. People shouldn't build eco-houses with thin walls | j. because solid waste from the toilet can be used for composting. |