**Дата:10.02.2022**

**Група №Б1**

**Урок №17-18**

Тема уроку*: «*Brick*.»*

**Мета уроку:** Ознайомити учнів з новою лексикою теми. Вдосконалювати навички усного мовлення та письма. Розвивати культуру спілкування та мовленнєву реакцію учнів.

**Матеріали уроку:**

1. Read and translate the text ‘Brick’.

BRICK

Brick compares favourably with stone as a structural material for its fire- and weather-resisting qualities and for the ease of production, transportation, and firing, laying. The size of bricks is limited by the need for efficient drying, firing, and handling, but shapes, along with the techniques of bricklaying, have varied widely throughout history.

Special shapes can be produced by molding to meet particular structural or expressive requirements. For example, wedge-shaped bricks are sometimes employed in arch construction and bricks with rounded faces in columns. Bricks may be used in construction only in conjunction with mortar, since the unit is too small, too light, and too irregular to be stabilized by weight. Each course must be laid on an ample mortar bed with mortar filling the vertical joints.

The commonest ancient Roman bricks were cut into triangles and laid with the base out and the apex set into a concrete filling that provided additional strength. Rectangular bricks are bonded either as headers (short side out) or stretchers (long side out). Standard modern types provide a ratio of width to length of slightly less than 1:2 to permit a wide variety of bonding patterns within a consistent module, or standard of measurement. Brick, which has been used since the 4th millennium BC, was the chief building material in the ancient Near East. The versatility of the medium was expanded in ancient Rome by improvements in the manufacture of both bricks and mortar and by new techniques of laying and bonding. Employed throughout the Middle Ages, brick gained greater popularity from the 16th century on, particularly in northern Europe. It is widely used in the 20th century, often for nonbearing walls in steel frame construction.

 Цегла вигідно порівнюється з каменем як конструкційним матеріалом за його вогне- та атмосферостійкістю та простотою виготовлення, транспортування та випалу, укладання. Розмір цегли обмежений потребою в ефективному висушуванні, випалюванні та обробці, але форми, поряд з технікою кладки, в історії істотно змінювалися.

 Спеціальні форми можна виготовити формуванням, щоб відповідати конкретним структурним або виразним вимогам. Наприклад, кліноподібна цегла іноді застосовується в арковій конструкції та цегла із закругленими гранями в колонах. Цеглу можна використовувати в будівництві лише разом із розчином, оскільки вона занадто мала, занадто легка і занадто неправильна щоб бути закріпленим лише вагою. Кожен ярус має бути покладений на достатню кількість будівельного розчину , що заповнює вертикальні шви.

 Найпоширеніші давньоримські цегли розрізали на трикутники і викладали основою назовні, а верхівку встановлювали в бетонну заливку, що забезпечувало додаткову міцність. Прямокутні цегли скріплюються як поперечник (коротка сторона назовні), так і ложок (довга сторона назовні). Стандартні сучасні типи пропонують співвідношення ширини до довжини трохи менше 1: 2, щоб дозволити широкий спектр моделей скріплення в межах послідовного модуля або стандарту вимірювання. Цегла, яку застосовували з 4-го тисячоліття до нашої ери, була головним будівельним матеріалом на стародавньому Близькому Сході. Універсальність середовища була розширена в Стародавньому Римі вдосконаленнями виготовлення як цегли, так і розчину, а також новими методами укладання та склеювання. Використовувана протягом середньовіччя, цегла набула більшої популярності з 16 століття, особливо в Північній Європі. Вона широко застосовується в 20 столітті, часто для неопорних стін в сталевій каркасній конструкції.

1. **Complete the table below. Suffixes are used, but not always. Translate the words. Use a dictionary if necessary.**

|  |  |  |  |
| --- | --- | --- | --- |
| verb | noun | adjective | adverb |
|  Construct-конструювати | Construction-конструкція | Constructive-конструктивний | Constructively-конструктивно |
| ... | Favour-користь | Favourite-улюблений | Favourably-корисно  |
| Contribute-робити внесок | Contribution-внесок | Contributive-внесений | Contributively-внесено |
| Decorate-прикрашати | Decoration-прикраса | Decorative-прикрашений | Decoratively-прикрашено |
| … | Popularity-популярність | Popular-популярний | Popularly-популярно |
| vary-урізноманітнювати | Variety-різноманітність | Variety-різноманітний | Varied-різноманітно |
| Measure- вимірювати | Measurement-вимірювання | Measured-виміряний | Measured-обміряно |

III. Look for the words with the similar meaning in the text.

1. to use - employ

2. decoration –in conjunction with

3. needs, conditions - requirements

4. plenty, more than enough -ample

5. top, the highest point of anything -apex

6. to become stabilized –constant, permanent

7. to acquire, to get, to win –the need

8. allow, give permission to -provided

9. carrying out, production - laid

10. for instance –for example

11. not wasteful, systematic –widely used

12. to supply with something useful -produce

13. main -commonest

14. make diverse, change, modify -employ

15. diversity -versatility

16. physical form -shape

17. act of building, design-techniques

IV. Write out all present participles and past participles from the text. Translate them into native language.

*Examples:*

*Special shapes can be produced – past participle, part of predicate;*

*Wedge-shaped brick – past participle, part of definition.*

With rounded faces in columns- past participle, part of definition;

Bricks may be used in- past participle, part of predicate;

To be stabilized by weight- past participle, part of predicate;

Each course must be laid- past participle, part of predicate;

With mortal filling the vertical joints- present participle, part of predicate.

V. Look for the appropriate word in the box for the following meaning.

|  |
| --- |
| Stretcher, header*,* improvement, pattern, apex,employ, in conjunction with, molding, ample, brick, versatility, concrete, bond, bricklayer, wedge-shaped bricks, medium, frame. |

|  |  |
| --- | --- |
| Word | Meaning  |
| frame | 1. An ornamental edge or band of wood or bottom of wall, etc. |
| header | 2. It is short side out |
| stretcher | 3. It is long side out |
| employ | 4. To use a particular object, method, skill etc i |
| bond | 5. Two things become firmly fixed together. |
| concrete | 6. Very hard building material made by mixing sand, very small stones, cement and water.  |
| brick | 7. A hard building material made by mixing clay and water with following drying and firing |
| ample | 8. It means plenty or more than enough.  |
| Wedge-shaped bricks | 9. Special form of brick.  |
| apex | 10. The main part of building, which holds it together. |
| bricklayer | 11. Someone whose job is to build walls, house, etc. with bricks.  |
| medium | 12. Middle or average in size, amount, value, etc. |
| versatility | 13. Having a lot of different uses. |
| improvement | 14. The act of process of making something better or the state of being improved (+ in\on\to).  |
| In conjunction with | 15. Somebody/something working, happening, or being used with someone or something else  |
| molding | 16. A regularly repeated arrangement of shapes, colours, or lines on a surface, usually as decoration  |
| pattern | 17. The highest point of anything. |

VI. Match a line *E* with a line in *F* to make a sentence.

|  |  |
| --- | --- |
| *E* | *F* |
| 1. The size of bricks is … | a) …in the 20th century, often for nonbearing walls in steel frame construction.. |
| 2 The versatility of the medium…  | b) … with stone as a structural material. |
| 3. It is widely used … | c) …from the 16th century on, particularly in northern Europe. |
| 4. The commonest ancient Roman bricks …  | d) …was expanded in ancient Rome. |
| 5 Brick…  | e) …limited by the need for efficient drying, firing, and handling. |
| 6. Brick compares favourably…  | f) …were cut into triangles |
| 7. Employed throughout the Middle Ages, brick gained greater popularity …  | g) ...was the chief building material in the ancient Near East. |

VII. Are the following statements true or false? Correct the false ones.

1. The main part of building, which holds it together, is frame.

2. Shapes of bricks along with the techniques of bricklaying have varied widely throughout history.

3. Someone whose job is to build walls, house, etc. with bricks is scientist.

4. Stone is a very hard building material made by mixing sand, very small stones, cement and water

5. Apex means the highest point of anything.

6 The commonest ancient Roman bricks were cut into rectangular and laid with the base out and the apex set into a concrete filling.

7. Rectangular bricks are bonded either as headers (short side out) or stretchers (long side out).

8. Brick is widely used in the 20th century, often for nonbearing walls in wooden frame construction.

9. Bricks may be used in construction only in conjunction with limestone.

10. So wedge-shaped bricks are sometimes employed in arch construction and bricks with rounded faces are used in columns.

VIII. Answer the following questions.

1. What is brick often used in the 20th century for?

2. What is pattern and where is it usually used?

3. Where did brick gain greater popularity from the 16th century?

4. What does it mean versatility?

5. What is a very hard building material made by mixing sand, very small stones, cement and water?

6. What does brick compare favourably with?

7. What was the versatility of the medium expanded in ancient Rome by?

8. Which kind of bricks is employed in arches construction?

9. And which kind of bricks is employed in columns construction?

10. What does word ‘brick’ mean?

11. Which kind of bricks was cut into triangles and laid with the base out and the apex set into a concrete filling that provided additional strength?

12. What can special shapes of bricks be produced by?

14. What may bricks be used in construction in conjunction only with?

15. What does mortar mean?

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Бажаю успіхів!