

**1. Паспорт комплекта контрольно-оценочных средств**

В результате усвоения учебной дисциплины ОГСЭ.03. Иностранный язык в профессиональной деятельности студент должен обладать предусмотренными ФГОС СПО по специальности 07.02.01 Архитектура

умениями:

У-1 общаться (устно и письменно) на иностранном языке на профессиональные и повседневные темы;

У-2 переводить (со словарем) иностранные тексты профессиональной направленности;

У-3 самостоятельно совершенствовать устную и письменную речь, пополнять словарный запас;

знаниями:

З-1 лексический (1200-1400 лексических единиц) и грамматический минимум, необходимый для чтения и перевода (со словарем) иностранных текстов профессиональной направленности, которые формируют профессиональную компетенцию, и общими компетенциями:

ОК 1. Понимать сущность и социальную значимость своей будущей

профессии, проявлять к ней устойчивый интерес.

ОК 2. Организовывать собственную деятельность, определять методы и способы выполнения профессиональных задач, оценивать их эффективность и качество.

ОК 3. Принимать решения в стандартных и нестандартных ситуациях и

нести за них ответственность.

ОК 4. Осуществлять поиск и использование информации, необходимой для эффективного выполнения профессиональных задач, профессионального и личностного развития.

ОК 5. Использовать информационно-коммуникационные технологии для совершенствования профессиональной деятельности.

ОК 6. Работать в коллективе и в команде, эффективно общаться с коллегами, руководством, потребителями.

ОК 7. Брать на себя ответственность за работу членов команд (подчиненных), за результат выполнения заданий.

ОК 8. Самостоятельно определять задачи профессионального и личностного развития, заниматься самообразованием, осознано планировать повышение квалификации.

ОК 9. Ориентироваться в условиях частой смены технологий в профессиональной деятельности

ОК 10. Исполнять воинскую обязанность, в том числе с применением полученных профессиональных знаний.

**2. Оценивание уровня освоения учебной дисциплины**

Предметом оценивания служат умения и знания, предусмотренные ФГОС СПО по дисциплине ОГСЭ.03. Иностранный язык в профессиональной деятельности, направленные на формирование общих и профессиональных компетенций. Промежуточная аттестация по учебной дисциплине проводится в форме дифференцированного зачета.

**Контроль и оценивание уровня усвоения учебной дисциплины**

**ОГСЭ.03.Иностранный язык в профессиональной деятельности по темам**

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| **Элемент учебной дисциплины** | **Формы и методы контроля** | | | |
| **Текущий контроль** | | **Промежуточная аттестация** | |
| **Форма контроля** | **Проверяемые ОК, У,З** | **Форма контроля** | **Проверяемые ОК, У, З** |
| **Раздел 1.**  ***Иностранный язык в профессиональном общении*** |  |  |  |  |
| Тема 1.1. Мой колледж. Моя профессия. | Вводный контроль | ЛР 1-15  ОК2, ОК5 |  |  |
| Тема 1.2. Моя специальность | Контрольно-тренировочные упражнения | ЛР 1-15  ОК 2, ОК4, ОК8 |  |  |
| Тема 1.3. Возможности карьерного роста | Проекты | У-2, З-1, ОК2, ОК4, ОК8 |  |  |
| Тема 1.4. История развития архитектуры. Первые архитекторы. | Устный опрос | ОК2, ОК5, ОК7, ОК6 |  |  |
| Тема 1.5. Современные тенденции в развитии архитектуры. | Технический перевод текста | ОК2,ОК-4,  ОК 5, ОК8, ОК10. ЛР 1-15 |  |  |
| Тема1.6. Требования к профессии. | Технический перевод текста | ОК2,ОК-4,  ОК 5, ОК8, ЛР 1-15 |  |  |
| **Раздел 2. *Профессиональный модуль*** |  |  |  |  |
| Тема 2.1. Научно-технические стили русского и английского языков | Устный опрос | ОК2, ОК4, ОК8, ЛР 1-15 |  |  |
| Тема 2.2 Особенности лексики и перевода иностранной научно-технической литературы | Самостоятельная работа | ЛР 1-15  ОК-2, ОК4, ОК5, ОК-8 |  |  |
| Тема 2.3. Перевод инструкций при работе на строительной площадке. | Практика технического перевода | ОК4, ОК5, ОК-8 ЛР 1-15 |  |  |
| ***Тема 2.4. Виды, свойства и функции современных архитектурных материалов*** | Фронтальный опрос | ЛР 1-15 ОК4, ОК5, ОК-8 ЛР |  |  |
| Тема 2.5. Архитектурные материалы, их свойства и функции | Контроль навыков индивидуального перевода текстов | ОК-2, ОК4, ОК5, ОК-8 ЛР 1-15 |  |  |
| Тема 2.6. Натуральные материалы | самостоятельная работа | У-2, З-1 ОК5, ОК-8 |  |  |
| Тема 2.7. Древесина. Свойства | Проектная работа | ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.8.Детали из дерева, преимущества и недостатки | самостоятельная работа | У-3, З-1 ОК-2, ОК4, ОК8  ЛР 1-15 |  |  |
| Тема 2.9 Искусственные материалы | Подготовить презентацию | ЛР 1-15  ОК2,ОК-4, ОК 5,ОК8,ОК10. |  |  |
| Тема 2.10Лакокрасочные материалы | Подготовить буклет | У-1,З-1, ЛР 1-15  ОК2,ОК-4, ОК 5,ОК8,ОК10. |  |  |
| ***Контрольная работа №1*** |  |  | Контроль знаний |  |
| Тема 2.11. Композитные материалы | Самостоятельная работа | ОК2,ОК-4, ОК 5,ОК8,  1-15 |  |  |
| Тема 2.12. Стекло | Творческие работы по переводу | У-2,З-1, ЛР 1-15  ОК2,ОК4,ОК8. |  |  |
| Тема 2.13. Металлы | Устный опрос | У-1,З-1, ЛР 1-15  ОК2,ОК-4, ОК 5,ОК8 |  |  |
| Тема 2.14. Сплавы | Проекты | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.15. Кирпич. Свойства и применение | Дифференцированные задания на совершенствование навыков чтения | У-1, З-1 ЛР 1-15  ЛР 1-15  ОК2,ОК5 ОК8 |  |  |
| Тема 2.16. Виды кирпича | Устный опрос | У-2, З-1  ОК2, ОК4, ОК8, |  |  |
| Тема 2.17. Керамика | Устный опрос | У-1,З-1, ЛР 1-15  ОК2,ОК-4, ОК 5,ОК8,ОК10. |  |  |
| Тема 2.18.Растворы | Творческие работы по переводу | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.19.Растворы | Практика перевода | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.20.Растворы | Практика перевода | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.21.Бетон. Виды и свойства | Устный опрос | ОК4, ОК5, ОК-8 ЛР 1-15 |  |  |
| ***Тема 3.3. История архитектуры*** |  |  |  |  |
| Тема 3.31.Эволюция жилых построек  Тема 3.32.Архитектура Древнего Мира | проектная работа | ОК-2, ОК4, , ОК-8,ЛР 1-15 |  |  |
| Тема 3.33.Архитектура Двуречья и Древнего Ирана | проектная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.34.Архитектурные памятники государства Инков | Написание эссе | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.35.Архитектура Древней Индии | Перевод текста | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.36.Архитектура о. Крит | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.37.Архитектура Древней Греции | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.38.Архитектура Древнего Рима | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Контрольная работа №2*** |  | Контроль знаний |  |  |
| Тема 3.39.Архитектура Византии | Перевод текста | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.40.Архитектура стран Западной Европы | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 ОК-2, ОК4, ОК5, ОК-8 |  |  |
| Тема 3.41.Архитектура Арабского Халифата, Ирана, Турции | Перевод текста | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.42.Архитектура эпохи возрождения | Перевод текста | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.43.Архитектура стран Северной и Южной Америки | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.44.Русская архитектура | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.45.Архитектура района проживания | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Тема 3.5. Архитектурные конструкции*** |  |  |  |  |
| Тема 3.51.Здания и требования к ним | Устный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.52.Архитектурные элементы зданий | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.53.Фундамент и его виды | Выполнение тренировочных упражнений | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.54.Стены. Виды стен | Устный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.55.Кладка из кирпича | Тренировочные упражнения | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Контрольная работа№3*** |  | Контроль знаний |  |  |
| Тема 3.56.Крыша. Ее функции | Устный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.57.Виды крыш | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.58.Перекрытия | Перевод текстов пофнапрвленности | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.59.Окна и двери | Фронтальный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.60.Перегородки | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.61.Веранды. Террасы | Фронтальный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.62.Внутренняя отделка стен | Тренироаочные упражнения | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.63.Подвесной потолок | Фронтальный опрос | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 3.64.Пол. Напольные покрытия | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Тема 2.5. Интерьер зданий и благоустройство*** |  | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.51.История интерьера | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 2.52.Стили в интерьере | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 4.53.Связь архитектуры и интерьера | Написание эссе | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 4.54.Цвет в интерьере | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 4.55.Дизайн стен | Тестовые задания | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 4.56.Детали и оборудование интерьера | Тестовые задания | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 4.57.Генплан | выполнение грамматических упражнений | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Тема 5.1 Документы, деловая переписка, переговоры*** |  |  |  |  |
| Тема 5.1. Устройство на работу. Документы | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 5.1.Написание заявления | Самостоятельная работа | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| Тема 5.2.Собеседование | Написание эссе | ОК-2, ОК4, ОК5, ОК-8  ЛР 1-15 |  |  |
| ***Контрольная работа№5*** |  |  | Контроль знаний |  |
| **Дифференцированный зачет** |  |  | Контроль знаний |  |

**3. Задания для оценки освоения учебной дисциплины**

3.1. Задания для текущего контроля.

Приложение № 1.

3.2 Задания для промежуточной аттестации.

Приложение № 2.

**4. Условия проведения промежуточной аттестации.**

Промежуточный контроль освоения умения и усвоенных знаний дисциплины ОГСЭ.03. Иностранный язык в профессиональной деятельности осуществляется на дифференцированном зачете. Условием допуска к дифференцированному зачету является положительная текущая аттестация по всем практическим работам учебной дисциплины, ключевым теоретическим вопросам дисциплины (проверка выполняется текущим контролем).

**5. Критерии оценивания для промежуточной аттестации.**

**Критерии оценки письменных ответов**

|  |  |
| --- | --- |
| **Оценки** | **Критерии оценки** |
| **«5»** | Коммуникативная задача решена полностью, применение лексики адекватно коммуникативной задаче, грамматические ошибки либо отсутствуют, либо не препятствуют решению коммуникативной задачи |
| **«4»** | Коммуникативная задача решена полностью, но понимание текста незначительно затруднено наличием грамматических и/или лексических ошибок. |
| **«3»** | Коммуникативная задача решена, но понимание текста затруднено наличием грубых грамматических ошибок или неадекватным употреблением лексики. |
| **«2»** | Коммуникативная задача не решена ввиду большого количества лексико-грамматических ошибок или недостаточного объема текста. |

**Критерии оценки устных развёрнутых ответов**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Оценки** | **Взаимодействие с собеседником** | **Лексический запас** | **Грамматическая правильность речи** | **Фонетическое оформление речи** |
| **«5»** | Адекватная естественная реакция на реплики собеседника. Проявляется речевая инициатива для решения поставленных коммуникативных задач. | Имеется большой словарный запас, соответствующий предложенной теме. Речь беглая. Объем высказываний соответствует программным требованиям. | Лексика адекватна ситуации, редкие  грамматические ошибки не мешают коммуникации. | Владеет основными произносительными и интонационными навыками устной речи и техникой чтения. |
| **«4»** | Коммуникация затруднена, речь студента неоправданно паузирована. | Имеется достаточный словарный запас, в основном соответствующий поставленной задаче. Наблюдается достаточная беглость речи, но отмечается повторяемость и некоторые затруднения при подборе слов. | Грамматические и/или  лексические ошибки заметно влияют на восприятие речи студента. | В достаточной степени владеет техникой чтения и основными произносительными и интонационными навыками устной речи. Однако допускает незначительные ошибки в произношении отдельных звуков и интонации иноязычной речи. |
| **«3»** | Коммуникация существенно затруднена, студент не проявляет речевой инициативы. | Имеет ограниченный словарный запас, использует упрощенные лексико-грамматические структуры, в некоторых случаях недостаточные для выполнения задания в пределах предложенной темы. | Студент делает большое количество грубых грамматических  и/или лексических  ошибок. | В недостаточной степени владеет техникой чтения и допускает многочисленные фонетические и интонационные ошибки, что затрудняет понимание речи. |
| **«2»** | Коммуникативная задача не решена ввиду большого количества лексико-грамматических ошибок или недостаточного объема текста. | Бедный лексический запас, отсутствует какая-либо вариативность в его использовании. | Допускает большое количество грамматических ошибок. Отмечается трудность при выборе правильных глагольных форм и употреблении нужных времен. | Речь неправильная, с большим количеством фонетических и интонационных ошибок. Наблюдаются многочисленные ошибки на правила чтения. |

**Разлел1.Иностранный язык в профессиональной деятельности**

**Тема 1.1 Мой колледж, моя профессия**

**Тест по дисциплине «Английский язык»**

**(входной контроль)**

**Условия выполнения задания:**

1. Задание выполняется в аудитории во время занятий
2. Максимальное время выполнения задания: 45/45 минут
3. Можно пользоваться словарем

**Критерии оценивания:**

40-37 правильных ответов – оценка “5”

36-33 правильных ответов – оценка “4”

32-28 правильных ответов – оценка”3”

менее 28 – оценка”2”

**Выберите единственный вариант ответа**

**1.**Выберите правильный вариант множественного числа:

а) сhild b) childs b) children c) childrens

**2.** Подберите нужное местоимение:

I know there is ….. in that box.

a) some b) something c) anything

**3**. Выберите правильный вариант употребления притяжательного падежа:

Can I take my \_\_\_\_\_\_\_\_\_\_watch, please.

a) fathers b) father`s c) fathers`

**4**. Выберите правильный вариант, чтобы закончить предложение:

The symbol of the USA is a \_\_\_\_\_\_\_\_\_ .

a) red rose b) maple leaf c) bald eagle

**Вопросы с несколькими вариантами ответов**

**5. Вставьте нужные формы глаголов в предложения:**

|  |  |
| --- | --- |
| 1) …..you like to go for a drive this weekend?  2) You …. a dictionary to translate this text into Russian.  3) If you have a toothache you ….. go to the dentist at once.  4)He ….. at school yesterday.  5) We …. a dictation at the lesson tomorrow.  6) I ………. English words at this moment.  7) He usually ….. detective films in the evening.  8)This computer ...very often, use another one.  9) This poem ......by Pushkin many years ago. | 1. was 2. should 3. will write 4. was written 5. need 6. is used 7. am learning 8. would 9. watches |

**6. Выберите нужное сопутствующее слово, чтобы закончить предложение:**

|  |  |
| --- | --- |
| 1) We have \_\_\_\_\_\_\_\_\_\_\_ done this work, you may check it.  2) I saw this man two days … .  3) They wrote a dictation at the English lesson …. | a)yesterday  b)already  c)ago |

**7. Соедините названия англоязычных стран с их столицами:**

1) The USA a) London

2) Great Britain b) Canberra

3) Australia c) Washington, D.C.

**8. Прочитайте текст и затем выполните задания на понимание прочитанного:**

The first stamp in the world was an English stamp. It was made in 1840 to pay the postage on letters going to different parts of the country.

Stamps are always interesting because they have pictures on them of the countries they came from; pictures of animals and birds living in jungles or on far-away islands; and pictures showing people dressed in their national costumes.

A stamp collection is not only a good textbook of history and geography. It is also a source of information on many other subjects.

Sometimes there are mistakes on stamps. For example, the St. Kitts and Nevis stamp, issued in 1903, showed Christopher Columbus looking through a telescope, an instrument which was unknown in his day. On a German stamp, issued in 1956 in commemoration of the composer Schumann, the music printed on the stamp was not written by Schumann. The people knowing music well saw this mistake at once.

**Определите верны ли следующие предложения. Выберите T, если утверждение верно и F, если неверно:**

1. The first stamp in the world was made in the USA. T F
2. The first stamp appeared in the 19-century. T F
3. A telescope was already known in the time of Columbus. T F
4. In 1956 a stamp in commemoration of Shubert was made. T F

**9.Расставьте слова в предложениях в правильном порядке:**

1) do the shopping/I/every Saturday/at the market

2) has/he/already/this work/done

**10. Образуйте необходимую по смыслу часть речи от глагола, данного в скобках:**

1) We can find all the necessary \_\_\_\_\_\_\_\_\_\_ in the Internet. (inform)

2) I have recently read a very …. book about adventures. (interest)

**Задайте разделительный вопрос к данным предложениям:**

3) You are going to pass examination in History, ……. ?

4) My little sister is playing with her doll now, ….?

**Закончите предложение, употребив инфинитив или герундий:**

5) They always enjoy \_\_\_\_\_\_\_\_\_ interesting programmes on TV. (watch)

6) I wonder if this movie is worth …. (see).

**Вставьте артикль a, an, the, если необходимо:**

7) I want to go for \_\_\_ walk with my dog.

8) Some people enjoy going to ….. theatre very much.

**Ключ для контроля правильности выполнения вводного диагностического теста по английскому языку**

|  |  |  |
| --- | --- | --- |
| № задания | Правильный ответ | Кол-во баллов |
| 1 | b | 2 |
| 2 | b | 1 |
| 3 | b | 1 |
| 4 | c | 1 |
| 5 | 1h  2e  3b  4a  5c  6g  7i  8f  9d | 9 |
| 6 | 1b  2c  3a | 3 |
| 7 | 1c  2a  3b | 3 |
| 8 | 1F  2T  3F  4F | 4 |
| 9 | 1. I do the shopping at the market every Saturday.  2. He has already done this work. | 2  2 |
| 10 | 1.information  2. interesting  3.aren’t you  4. isn’t she  5. watching  6.seeing  7. a  8.the | 1  1  1  1  2  2  2  2 |
| **Итого:** |  | 40 баллов |

Тема 1.2. Моя специальность

***Контрольно-тренировочные упражнения***

**1. Translate into Russian paying attention to the words in italics.**

1. He always *works* hard. 2. The bridge was closed for repair *works*. 3. The researchers didn’t conduct *experiments* on animals. 4. He often *experiments* with new materials. 5. The wide avenue *borders* the park. 6. We can’t cross the *border* without documents. 7. She will *show* you all the sights of the city. 8. There was a new *show* in the theatre yesterday.

**2. Match the pairs of synonyms.**

Craftsman, temple, to flourish, fortress, to survive, shrine, artisan, to thrive, citadel, to outlive.

3. **Choose the correct form of the verb.**

**1.** During the Old Kingdom Egypt … by the kings of the 3rd to 6th Dynasties.

a) was ruling b) have ruled c) was ruled d) will rule

**2.** Techniques of working in stone, wood, and metal … tremendous progress.

a) made b) have made c) makes d) was making

**3.** These monuments … the divinity of the Egyptian kings.

a) celebrate b) will celebrate c) have been celebrating d) celebrated

**4.** The earliest that… are the copper statues of Pepi I and his son at Hierakonpolis.

a) were surviving b) survives c) survive d) will survive

**5.** Fortresses … to defend the southern and eastern borders,

a) built b) were built c) build d) builds

**6.** Very little architecture … — many royal monuments were robbed in later

periods.

1. had remained b) remain c) has been remained d) remains

**7.** Craftsmen … from wider contact with other civilizations.

a) benefit b) benefited c) benefits d) will benefit

**4. Choose the correct preposition.**

**1.** Craftsmen and artists were drawn to the court to work … the patronage of the king.

a) with b) under c) about d) at

**2.** The sun temples were built… the 5th Dynasty.

a) from b) on c) into d) by

**3.** Craftsmen worked… the finest materials.

a) with b) for c) in d) after

**4.** New areas of land were brought… cultivation.

a) under b) from c) over d) on

**5.** The Ptolemies built numerous temples … the island of Philae.

b) on c) above d) in

Тема 1.3. Возможности карьерного роста

Подготовить проекную работу(макет стенда «Возможности карьерного роста

»

**Тема 1.4. История развития архитектуры. Первые архитекторы**

**Устный опрос**

1.Who were the first architects?



Historians identify Imhotep, who lived around 2600 BC, as the first identified architect in history. He is credited with inventing the method of stone-dressed building and using columns in architecture. Imhotep served the Egyptian pharaoh Djoser.

2. Who is the father of architecture?

Frank Lloyd Wright

Frank Lloyd Wright, the renowned American architect known as the Father of Architecture, was born on June 8, 1867, in Richland Center, Wisconsin, USA. From an early age, he displayed a fascination with nature and its organic forms, a passion that would profoundly shape his architectural philosophy.

3.What is the oldest architect?



Imhotep

Imhotep, an ancient Egyptian priest and architect, had to design a tomb for the Pharaoh Djoser.

4. Who was the first female architect?



Louise Blanchard Bethune

Louise Blanchard Bethune (1856–1913) is widely considered to be the first woman to practice as a professional architect in the United States.

**Тема 1.5. Современные тенденции в развитии архитектуры. Перевод технического текста**

**WHAT IS MODERN ARCHITECTURE?**

*Modernism in architecture is characterized by its emphasis on form over ornament; appreciation of materials and structure instead of idyllic revival constructions; and the adroit, methodical use of space.*

Several different styles of modern architecture in the United States developed between 1930 and 1970 such as the International, Expressionist, Brutalist, New Formalist, and Googie movements. The roots of modern architecture can be traced to the 1893 Chicago World’s Fair, which was composed entirely of cutting-edge buildings and cemented the United States’ role as a world leader in art, architecture, and technology. The head architect was Daniel Burnham, who recruited the most prominent American architects, including Louis Sullivan’s firm Adler and Sullivan, to design the temporary buildings for the Fair. Louis Sullivan is most well-known for his aesthetic philosophy “form follows function,” which became the rallying cry for the modern movement. Sullivan’s rejection of ornamentation and clarity of structural function embodied the value of democracy, the importance of nature, the autonomy of the individual, and the earnest expression of function without extravagance. One of the many young architects inspired by the 1893 Chicago World’s Fair was Frank Lloyd Wright, the leading force in shaping modern American architecture in the 20th century. At the Fair, Wright encountered Japanese architecture in its traditional form at the Japanese government’s official pavilion. The building featured a half-scale reproduction of a Japanese temple. The open plan, horizontality, broad roofs, carefully wrought craftsmanship, and non-structural walls used in the temple would inform Wright’s design aesthetic for the rest of his career.



**AMERICAN MODERNISM:** FRANK LLOYD WRIGHT. THE KAUFMANN HOUSE KNOWN AS FALLINGWATER, MILL RUN, PA, 1939. PHOTO BY WALTER BIBIKOW. GETTY IMAGES.



**EUROPEAN MODERNISM:**WALTER GROPIUS. EXTERIOR OF THE BAUHAUS, DESSAU, SAXONY-ANHALT, GERMANY, 1925-1926. PHOTO BY GILI MERIN. ARCH DAILY.

Young European architects were enraptured by Wright’s bold abstract forms stripped of ornament. In addition to the bevy of young American architects influenced by Wright and practicing in the Prairie Style, European Modernists Walter Gropius and Mies van der Rohe, who would become major fixtures of the Bauhaus, began to incorporate some of Wright’s more abstract forms into their own work. Staatliches Bauhaus, known simply as the Bauhaus, was the epicenter of the modern movement in Europe. The Bauhaus was a German school of architecture, sculpture, painting, design, and craft, led by Walter Gropius, in operation from 1919 to 1933 that brought the modern movement to international prominence. Bauhaus leaders Walter Gropius, Marcel Breuer, and Ludwig Mies van der Rohe left Germany in the late 1930s to escape growing Nazi aggression against its European neighbors. Gropius and Breuer began teaching at the Harvard University School of Design, where Gropius was chair, and Mies van der Rohe became a professor at Chicago’s Armour Institute, now the Illinois Institute of Technology. Prior to the arrival of other European modernists dispersed by escalating tensions in Nazi Germany, Rudolph Schindler and Richard Neutra came to the United States and began working with Frank Lloyd Wright. Schindler and Neutra became well known on the West Coast for their expert blend of European rationalism with Wrightian organicism. These expats greatly influenced generations of American architects, popularizing the European modernist aesthetic throughout the United States. Architects such as Philip Johnson, Paul Rudolph, IM Pei, Edward Durell Stone, were educated with modernist ideals which evolved into regional iterations of modern architecture. Architecture firms such as the New York-based Skidmore, Owings & Merrill, created iconic modern office buildings and high rises all over the country.

**Тема1.6. Требования к профессии**

**Перевод текста**

**Is there an A-Level Architecture?**

No, there isn’t an official A-Level Architecture like there is for Maths or Physics. To help you prepare for university-level Architecture, taking a wide combination of A-Level subjects is highly recommended. You can’t go wrong with science/maths, arts, and an essay-based subject combo!Immerse Education offers an [Architecture summer school programme](https://www.immerse.education/architecture-summer-school/) for aspiring young architects who want to gain valuable insight on whether to pursue Architecture in higher education. You can choose from two options: a residential summer programme available at the University of Cambridge and an Online Course so you can access it from the comfort of your home.

Do you need Maths A-Level for Architecture?

You don’t *need* Maths A-Level for Architecture for most universities. But taking Maths *is* often desirable. Not feeling like taking Maths A-Level? Then why not take Physics instead? It’s a good alternative to maths because it still uses Mathematical principles while focusing on science.Here’s the catch, even if you decide not to take Maths A-Level, you’ll still use Mathematics during the Architecture course.

Do you know that algebra, geometry, and trigonometry are essential in Architectural design? So by taking Maths at A-Level, you’re giving yourself the necessary tools to better prepare for Architecture at the university. It would be challenging to catch up when you’re out of practice in Mathematical computations *while* you’re still entirely new to Architecture and are trying to get a good grasp on it. In addition, if you abhor Maths, perhaps you should think twice about Architecture. Will you enjoy designing buildings using algebraic, geometric, and trigonometric principles? If you think you won’t enjoy Maths at all, then you may, in turn, also dislike Architecture.

**Раздел 2. *Профессиональный модуль***

***Тема 2.1. Научно-технические стили русского и английского языков***

***Что относится к научно техническому стилю?***

Научно-технический стиль представляет собой пространство функционирования научно-технических текстов. Это пространство неоднородно. В понятие научно- технического функционального стиля входит язык научно-естественной, научно- гуманитарной и научно-технической литературы.

Какие языковые средства используются в научном стиле?

|  |  |
| --- | --- |
| **Языковые средства** | **Примеры** |
| Абстрактные имена существительные | Аморфность, бинарность, громкость, динамичность, инновационность, легитимность |
| Имена существительные среднего рода | Состояние, возникновение, определение, изучение, исследование |
| Наречия, наречные выражения | В заключение, поэтому, потому, затем, сначала |

**What are the linguistic features of the scientific style?** Scientific style is a functional style of speech in a literary language, which has a number of features: preliminary consideration of an utterance, monological character, strict selection of linguistic means, gravitation to standardized speech.

**Тема 2.2Особенности лексики и перевода иностранной научно-технической литературы.**

**Задание: перевести текст**

**W**hen [Alison Van Eenennaam](https://animalbiotech.ucdavis.edu/), an animal geneticist and cooperative extension specialist at the University of California (UC), Davis, grew up in metropolitan Melbourne, Australia, she never expected to establish her career in a city across the Pacific Ocean. Her trajectory towards genetic engineering, a career path that did not exist during her childhood, came as an even bigger surprise.

During her undergraduate studies at the University of Melbourne, Van Eenennaam focused on agricultural science. In her senior year, she met geneticist [Juan Fernando Medrano](https://animalscience.ucdavis.edu/people/emeriti/juan-medrano) at UC Davis during an exchange program, which led to her first foray into animal genetics. Van Eenennaam went back to Australia for a few years before taking the leap to emigrate to California. She eventually joined Medrano’s group to pursue a master’s degree in animal science and a doctoral degree in genetics.In 1994, she worked as a research scientist at Calgene, focusing on using genomic techniques to modify plants. During this time, she witnessed Calgene’s commercialization of the first genetically engineered plant, the Flavr Savr tomato. However, animal agriculture and extension remained her passions.

**One of my favorite parts of working with Alison is that right off the bat, she took the time to really try and understand what my interests were both from a research and future career standpoint.**In 2002, UC Davis began a search for someone to fill a role at the intersection of animal biotechnologists, livestock producers, and the public to explain these technologies and combat the misinformation around genetically modified organisms (GMO). Van Eenennaam, a perfect fit, jumped at the opportunity.

## Van Eenennaam’s role since then has encompassed a blend of research and science communication. With her genome editing research, she strives to underscore the technology’s utility for augmenting livestock breeding and its potential for improving animal models for biomedical applications.

**Тема 2.3. Перевод инструкций при работе на строительной площадке.**

**Задание:** перевести тексты, выписать и выучить новые лексические единицы

**Текст 1.**

**Site instructions: Here's the correct format for your book**

**What are site instructions? And when are they used?**

A site instruction is a formal instruction typically issued by the head or lead contractor with instructions and directives to other contractors or subcontractors. These instructions must be written and formalized because they fall outside the original project scope or plan - and hence require additional 'instruction'.Site instructions can be delegated to the contractor or subcontractor for the execution of particular works, the purchase of new or additional goods, the testing of materials and design or defect issues which need rectification. Contractors obviously prefer not to issue site instructions, as they either: Point to a problem or defect associated with the initial construction or works which could have been done right the first time, Point to a delay or holdup with an element of the project which needs to be adjusted through additional supplier, ordering etc. Fall outside the original scope of the contract and work, which isn't ideal for any parties - who plan and schedule their people and assets based on that original plan (with some wriggle room)A perfect project would result in no variations or site instructions, but as we know, that is rare/almost impossible.

Why do site instructions matter?

Site instruction are very important for projects and companies in the industries. Logistically, they are important to moving projects forward. A contractor who is largely responsible for the safe delivery of the asset must have a mechanism for pushing adjustments down through the chain ofcommand. If a subcontractor is falling behind on schedule or the client requests a change from the original plan, the contractor needs to have a formal method for ensuring that other contractors and 12 subcontractor are informed and compensated for this change - and execute the new instruction properly. Because site instructions often fall outside the original scope of the contract, they aren't necessarily 'covered' by the contract.If site instructions aren't or weren't issued, contractors and subcontractors alike can fall into a grey area of work where claims and disputes arise because of the ambiguity of the work required, who's fault it is/was, and how much people need to be payed or compensated. The additional instruction, which contains directives as to the type and scope of additional work necessary ensures that the work is covered what is essentially a 'supplemental' contract. Getting your site instruction format and documents right.Getting the format of your site instructions is important. Site instruction carry weight and importance, and can be important for legal and financial matters. In order to protect yourself against unfair claims and disputes, it's important to keep a thorough and standardized site instruction template which you can issue every time. The site instruction example you see below was issued to a subcontractor. Due to the speed and changing nature of works, the concrete supplier needed to deliver an additional 100 tonne of concrete to site. The contractor issued this site instruction so that the amount of concrete kept up with other works - and didn't delay the project.

**Текст 2**

**HISTORY OF SURVEYING**

Surveying can be determined as a means of making relatively large-scale, accurate measurements of the Earth’s surfaces. It includes the determination of the measurement data, the reduction and interpretation of the data to usable form, and, conversely, the establishment of relative position and size according to given measurement requirements. Thus, surveying has two similar but opposite functions: 1) the determination of existing relative horizontal and vertical position, such as that used for the process of mapping, and 2) the establishment of marks to control construction or to indicate land boundaries. Surveying has been an essential element in the development of the human environment for so many centuries that its importance is often forgotten. It is an imperative requirement in the planning and execution of nearly every form of construction. Surveying was essential at the dawn of history, and some of the most significant scientific discoveries could never have been implemented were it not for the contribution of surveying. Its principal modern uses are in the fields of transportation, building, apportionment of land, and communications. It is quite probable that surveying had its origin in ancient Egypt. The Great Pyramid of Khufu at Giza was built about 2700 BC, 755 feet (230 5 meters) long and 481 feet (147 metres) high. Its nearly perfect squareness and north-south orientation affirms the ancient Egyptians’ command of surveying. Evidence of some form of boundary surveying as early as 1400 BC has been found in the fertile valleys and plains of the Tigris, Euphrates, and Nile rivers. Clay tablets of the Sumerians show records of land measurement and plans of cities and nearby agricultural areas. Boundary stones marking land plots have been preserved. There is a representation of land measurement on the wall of a tomb at Thebes (1400 BC) showing head and rear chainmen measuring a grainfield with what appears to be a rope with knots or marks at uniform intervals. There is some evidence that in addition to a marked cord, wooden rods were used by the Egyptians for distance measurement. There is no record of any angle-measuring instruments, but there was a level consisting of a vertical wooden A-frame with a plumb bob supported at the peak of the A so that its cord hung past an indicator, or index, on the horizontal bar. The index could be properly placed by standing the device on two supports at approximately

the same elevation, marking the position of the cord, reversing the A, and 13 making a similar mark. Halfway between the two marks would be the correct place for the index. Thus, with their simple devices, the ancient Egyptians were able to measure land areas, replace property corners lost when the Nile covered the markers with silt during floods, and build the huge pyramids to

exact dimensions. The Greeks used a form of log line for recording the distances run from point to point along the coast while making their slow voyages from the Indus to the Persian Gulf about 325 BC. The magnetic compass was brought to the West by Arab traders in the 12th century AD. The astrolabe was introduced by the Greeks in the 2nd century BC. An instrument for measuring the altitudes of stars, or their angle of elevation above the horizon, took the form of a graduated arc suspended from a hand-held cord. A pivoted pointer that moved over the graduations were pointed at the star. The instrument was not used for nautical surveying for several centuries, remaining a scientific aid only. The Greeks also possibly originated the use of the groom, a device used to establish right angles, but Roman surveyors made it a standard tool. It was made of a horizontal wooden cross pivoted at the middle and supported from above. From the end of each of the four arms hung a plumb bob. By sighting along each pair of plumb bob cords in turn, the right angle could be established. The device could be adjusted to a precise right angle by observing the same angle after turning the device approximately 90°. By shifting one of the cords to take up half the error, a perfect angle would result. About 15 BC the Roman architect and engineer Vitruvius mounted a large wheel of known circumference in a small frame, in much the same fashion as the wheel is mounted on a wheelbarrow; when it was pushed along the ground 6 by hand it automatically dropped a pebble into a container at each revolution; giving a measure of the distance traveled. It was, in effect, the first odometer. The water level consisted of either a trough or a tube turned upward at the ends and filled with water. At each end there was a sight made of crossed horizontal and vertical slits. When these were lined up just above the water level, the sights determined a level line accurate enough to establish the grades

of the roman aqueducts. In laying out their great road system, the Romans are said to have used the plane table. It consists of a drawing board mounted on a tripod or other stable support and of a straightedge – usually with sights for accurate aim (the alidade) to the objects to be mapped – along which lines are drawn. It was the first device capable of recording or establishing angles.

Later adaptations of the plane table had magnetic compasses attached. Plane tables were in use in Europe in the 16th century, and the principle of graphic triangulation and intersection was practiced by surveyors. In 1615 Willebrord Snell, a Dutch mathematician, measured an arc of meridian by instrumental triangulation. In 1620 the English mathematician Edmund Gunter developed a surveying chain, which was superseded only by the steel tape beginning in the late 19th century. The study of astronomy resulted in the development of angle-reading devices that were based on arcs of large radii, making such instruments too large for field use. With the publication of logarithmic tables in 1620, portable angle-measuring instruments came into use. They were called topographic instruments, or theodolites. They included pivoted arms for sighting and could be used for measuring both horizontal and vertical angles. Magnetic compasses may have been included on some. The vernier, an auxiliary scale permitting more accurate readings (1631), the micrometer microscope (1638), telescopic sights (1669), and spirit levels (about 1700) were all incorporated in theodolites by about 1720. Stadia hairs 14 were first applied by James Watt in 1771. The development of the circle dividing engine about 1775, a device for dividing a circle into degrees with great accuracy, brought one of the greatest advances in surveying methods, as it enabled angle measurements to be made with portable instruments far more accurately than had previously been possible. Modern surveying can be said to have begun by the late 18th century. One of the most notable early feats of surveyors was the measurement in the 1790s of the meridians from Barcelona, Spain, to Dunkirk, France, by two French engineers, Jean Delambre and Pierre Méchain, to establish the basic unit for the metric system of measurement. Many improvements and refinements have been incorporated in all the basic surveying instruments. These have resulted in increased accuracy and speed of operations and opened up possibilities for improved methods in the 7 field. In addition to modification of existing instruments, two revolutionary mapping and surveying changes were introduced: photogrammetry, or mapping from aerial photographs (about 1920), and electronic distance measurement, including the adoption of the laser for this purpose as well as for alignment (in the 1960s). Important technological developments starting in the late 20th century include the use of satellites as reference points for geodetic surveys and electronic computers to speed the processing and recording of survey data.

***Notes:***

1. Measurement data – данные измерений;

2. Apportionment of land – распределение земель;

3. Boundary surveying – межевание земель;

4. Land plot – земельный участок;

5. Nautical surveying – гидрографическая съёмка;

6. Сircumference – окружность;

7. Оdometer – одометр, измерительное колесо;

8. Plane table – мензула;

9. Vernier – верньер;

10. Telescopic sight – визирная труба;

11. Spirit level – спиртововй уровень;

12. Stadia hairs – дальномерные нити;

**Тема 2.5. Архитектурные материалы, их свойства и функции**

**Задание:** Прочитать, перевести тексты, выписать и выучить новые лексические единицы

**Текст 1.**

**Construction Materials**

There are many types of building materials used in construction such as Concrete, Steel, Wood and Masonry. Each material has different properties such as weight, strength, durability and cost which makes it suitable for certain types of applications. The choice of materials for construction is based on cost and effectiveness to resisting the loads and stresses acting on the structure. As a structural engineer, I work with my clients to decide on the type of materials used in each project depending on the size and use of the building.

The manufacturing of building materials is a well established and standardized industry capable of providing a reliable supply of high-quality materials for our structures.The production of structuralgrade building materials is subject to quality control procedures that involve inspection and testing according to national standards and scientific testing methods.Building materials can generally be divided into two categories: Natural building materials such as stone and wood, and Man-made building materials such as concrete and steel. Both categories usually require a certain level of preparation or treatment before the use in a structural application. Below is the list of materials I used the most in engineering consulting projects.There is lots more that can be covered on the topic of construction materials, but hopefully this gives you a good understanding of each of the major materials and the applications that are best suited for each of them. If you have any questions on any of these materials, feel free to leave them in the comment section below.Materials used for construction purposes possess different properties. They differ in durability, strength, weight, fire-and decay-resistance and, naturally, cost. Wood, timber, brick, stone, concrete, metals, and plastics belong to the most popular building materials used nowadays. They all have their advantages and disadvantages that are taken into account when designing a structure.

**Текст 2.**

**Modern Building Materials: Classification Natural materials. Extracted materials**

Materials are solid substances of which manufactured products are made. A variety of materials are used in different products. Basic types of materials range from wood, which has been used for thousands of years, to composite materials, which are still under development.

Materials belong to two groups: (1) natural materials and (2) extracted materials. Natural materials, which include stone, wood, and wool, are used much as they occur in nature. Extracted materials, such as plastics, alloys (metal mixtures), and ceramics, are created through the processing of various natural substances. Natural materials generally are used as they are found, except for being cleaned, cut, or processed in a simple way that does not use much energy. Natural materials include stone and biological materials.Certain types of rock are extremely strong and hard, and are therefore used as building stone. There are two types of building stone—crushed stone and dimension stone.

Biological materials are substances that develop as part of a plant or animal. Common plant materials include wood and various fibers such as cotton. Animal materials include leather and fibers such as wool.Wood is a valuable biological material because of its strength, toughness, and low density. These properties make wood an excellent material for thousands of products, including houses, sailboats, furniture, baseball bats, and railroad ties.

***Extracted materials*** are created through processes that expend a great deal of energy or alter the microstructure of the substances used to make the materials. Extracted materials include ceramics, metals and their alloys, plastics, rubber, composite materials, and semiconductors.

Ceramics include such everyday materials as brick, cement, glass, and porcelain. These materials are made from mineral compounds called silicates, including clay, feldspar, silica, and talc. People have used such metals as copper, gold, iron, and silver for thousands of years to make various practical and decorative objects. Today, metals are important in all aspects of construction and manufacturing. Plastics are synthetic materials made up primarily of long chains of molecules called polymers. There are two basic types of plastics: (1) thermosetting plastics (usual called thermosets) and (2) thermoplastics. Rubber is made up of elastomers, polymers that stretch easily to several times their length and then return to their original shape.

Engineers may artificially combine various materials to create a new composite material. Many composite materials contain a large amount of one substance to which fibers, flakes, or layers of another substance are added. Semiconductors are materials that conduct electricity better than insulators, but not as well as conductors, at room temperature.

**Текст 3.**

**Properties of Materials**

Manufacturers determine which material to use for a given product by evaluating properties (qualities) of materials. Some properties can be linked with a material's macrostructure (structure visible to the unaided eye).

Other properties are explained by a material's microstructure (structure that can be seen only through a microscope). The properties of materials are determined by their internal structure—that is, the way in which the fundamental parts of the materials are put together. At the most basic level, properties of materials are determined by chemical bonds, forces that attract atoms to one another and hold them together.

Materials scientists study how the structure of materials relates to their properties. A large part of their work involves experimentation. Scientists group the properties of materials according to various functions that must be performed by objects made of the materials. Most properties of materials fall into six groups: *(1) mechanical, (2) chemical, (3)electrical, (4) magnetic, (5) thermal, (6) optical.*

*Mechanical properties* are critical in a wide variety of structures and objects—from bridges, houses, and space vehicles to chairs and even food trays. Some of; the most important mechanical properties are (1) stiffness, (2) yield stress, (3) toughness, (4) strength, (5) creep and (6) fatigue resistance. Stiffness measures how much a material bends when first subjected to a mechanical force. Yield stress measures how much force per unit area must be exerted on a material for that material to реrmanently deform (change its shape). Toughness measures a material's resistance to cracking. The tougher a material, the greater the stress necessary to break that material near a crack. Strength measures the greatest force a material can withstand without breaking. A material's strength depends on many factors, including its toughness and its shape.

Creep is a measure of a material's resistance to gradual deformation under a constant force. Fatigue resistance measures the resistance of a material to repeated applications and withdrawals of force.

*Chemical properties* include catalytic properties and resistance to corrosion.

*Electrical properties* are important in products designed either to conduct (carry) or block the flow of electric current. Dielectric strength describes a material's response to an electric field.

*Magnetic properties* indicate a material's response to a magnetic field—the region around a magnet or a conductor where the force of magnetism can be felt.

*Thermal properties* reflect a material's response to heat. Thermal conductivity is a measure of how well a material conducts heat.

**Тема 2.6. Натуральные материалы**

Прочитать и перевести текст

**Wood**

Wood has been used as a construction material for thousands of years and if properly maintained canlast for hundred of years. It is a readily available and economically feasible natural resource with a light weight and highly machinable properties. It also provides good insulation from the cold which makes it an excellent building material for homes and residential buildings.

Wood pieces used in construction are machine-planed and sawn into certain dimensional

specifications. Dimensional lumber comes in widely available sections such as 2”x4”, 2”x6”, etc. This is commonly used in the construction of walls and floors. Believe it or not, a 2”x4” is actually 1 ½” wide x 3 ½” high. Wood that comes in larger dimensions are referred to as timber or beams and are commonly used to construct the frames of large structures such as bridges and multi-story buildings. Engineered wood is another type of wood used in construction that consist of various forms of wood glued together to form a composite material suitable for specific construction applications. Examples of engineered wood is glued laminated wood (glulam), plywood and fiberboard.Because of its light weight, wood is not the most suitable construction material to support heavier loads and not ideal for long spans. Wood is rarely used for foundations and basement walls, as it needs to be pressure treated because of its contact with soil/moisture which can be fairly expensive. In a woodframed house, the foundations and basement walls are usually constructed with reinforced concrete.

Wood belongs to naturally growing materials. It is known to be the oldest construction material and is still widely used for different purposes. Wood is popular since it has low weight and is easy to work. Besides, it grows naturally and is cheap. But its usage is limited because of its disadvantages: it easily burns and decays. As to stone, it also belongs to the oldest building materials. Among its advantages there are strength, high heat insulation and fire-resistance. Wood has been a highly used building material since prehistoric times. Among other highly used

construction materials there are concrete, steel, brick, stone, and plastics. They all differ in their

properties and in the methods of usage. Construction materials are known to differ in strength, hardness, fire-and corrosion-resistance durability, and, naturally, cost.Being the oldest building material, wood is also known to be the only naturally growing organic material. Is wood strong? Hardly so, because wood always contains some water which decreases its strength. But after the wood is cut, the water content starts to evaporate and as the water content decreases the strength of cut wood and its hardness start to increase. It is a well-known fact that the drier is the cut wood the greater is its strength and hardness.

Trees are known to grow naturally, which makes wood a constantly renewable natural resource. Among other advantages of wood there are its low cost, low weight, and high workability. But, as any other construction material, wood has its disadvantages. The main ones are the following-it is not fireresistant, it easily burns. Besides, it easily decays.

**Тема 2.7. Древесина. Свойства**

**Проектная работа:**подготовить макет: срез древесины

**Тема 2.8.Детали из дерева, преимущества и недостатки**

**Перевести текст, состпвить 7 вопросов разных типов**

Дерево – живое и капризное сырье для производства различных предметов. Лесоматериалы дышат, поглощают жидкость, и как следствие меняют оттенок, габариты, могут растрескаться и даже сгнить. Как и любой иной материал, древесина имеет определенные свойства. О том, какие существуют минусы и плюсы древесины, мы поговорим в этой статье.

**Достоинства древесины**

Главные плюсы древесины это:

* экологичность
* прочность
* долгий период эксплуатации
* легкий ремонт.

Главное достоинство бесспорно заключается в экологической чистоте этого материала. Люди, внимательно относящиеся к вопросам регулирования экологичности своего жилья, предпочитают изделия, которые изготовлены из натуральной древесины. Таким образом, они гарантируют защиту от отрицательного действия низкокачественных материалов.

Высокая прочность и длительный период эксплуатации можно назвать одним общим преимущественным параметром. Предмет мебели, созданный из прочного сорта лесоматериалов, в большинстве случаев имеет высокое качество, не подвержен заражению микроорганизмами. Именно эти характеристики гарантируют устойчивость к износу, и длительный период службыНачало формы

Конец формы

Простота ремонтных работ состоит в том, что через какое-то время можно собственноручно отреставрировать деревянное изделие при помощи шлифования или лакирования.

*Кроме этого к плюсам древесины можно отнести:*

* возобновляемость ресурсной базы
* достаточно низкая плотность
* высокий показатель удельной прочности - отношения максимальной прочности при растяжении вдоль волокон к уровню плотности: 100/500 = 0,2. Почти такой показатель у стальных изделий
* устойчивость к солевой агрессии, а также к действию прочих химически агрессивных соединений
* биологическая совместимость с людьми и животными. Деревянные здания имеют самый благоприятный микроклимат
* прекрасные акустические качества. Как известно самые лучшие концертные залы отделаны деревом
* низкая теплопроводность поперек волокон. Брусовая стена в толщину 200 мм имеет аналогичную теплопроводность кирпичной кладке в ширину 640 мм
* низкое линейное расширение вдоль волокон. Здания из дерева не нуждаются в температурных швах и подвижных опорах
* создание гнутоклееных сооружений

**Тема 2.9 Искусственные материалы**

***Подготовьте доклад с презентацией на одну из тем:*** Фасадные системы из искусственных каменных материалов; Искусственные каменные материалы будущего;

**Тема 2.10 Лакокрасочные материалы**

**Подготвить буклет**

*CLASSIFICATION OF VARNISH-AND-PAINT MATERIALS*

Various industries use a wide range of varnish-and-paint materials. This is due to complex and

diverse operating conditions of metal structures and technical facilities, as well as a variety of

corrosive environment and other factors.

Coating materials can be classified into several categories:

• By preferential destination area;

• By type of film-forming substances.

By type of paints coating materials are divided into varnishes, paints, powder coatings,

primers, putties and enamels.

Depending on the purpose of usage, coating materials can be divided into 9 groups:

2 Limited weather-resistant;

3 Preservation material;

7 Chemically resistant materials;

9 Electro insulating, electrically conducting materials.

By type of film-forming substance coating materials are divided into more than 40 groups,

from which only the following materials are used in anticorrosive practice:

PVC - polyvinyl chloride;

CR - chlorinated rubber;

Many manufacturers write their material identification in the following order:

• Type of varnish-and-paint material;

• Film-forming substance designation;

• Identification of the predominant group of destination;

• sequence number, assigned to this coatings;

• Verbal or numerical color identification.

***Контрольная работа №1***

**1 вариант**

**Прочитайте и переведите текст, обращая внимание на слова и выражения после текста:**

**BUILDING MATERIALS**

Materials that are used for structural purposes should meet several requirements. In most cases it is important that they should be hard, durable, fire-resistant an easily fastened together.The most commonly used materials are steel, concrete, stone, wood and brick. They differ in hardness, durability and fire-resistance.

*Wood* is the most ancient structural material. It is light, cheap and easy to work. But wood has certain disadvantages: it burns and decays.

*Stone* belongs to one of the oldest building materials used by men. It is characteristic of many properties. They are mechanical strength, compactness, porosity, sound and heat insulation and fire- resistance.

*Bricks* were known many thousands of years ago. They are examples of artificial building materials.

*Concrete* is referred to as one of the most important building materials. Concrete is a mixture of cement, sand, crushed stone and water.

*Steel* has come into general use with the development of industry. Its manufacture requires special equipment and skilled labour.

*Plastics* combine all the fine characteristics of a building material with good insulating properties. It is no wonder that the architects and engineers have turned to them to add beauty to modern homes and offices.

All building materials are divided into three main groups:

1) Main building materials such as rocks and artificial stones, timber and metals.

2) Binding materials such as lime, gypsum and cement.

3) Secondary or auxiliary materials which are used for the interior parts of the buildings.

We use many building materials for bearing structures. Binding materials are used for making artificial stone and for joining different planes. For the interior finish of the building we use secondary materials.

Natural building materials are: stone, sand, lime and timber. Cement clay products and concrete are examples of artificial building materials.

|  |  |
| --- | --- |
| 1. property 2. structural 3. purpose 4. hard (hardness) 5. durable (durability) 6. fire resistant (fire resistance) 7. fasten 8. ancient 9. light 10. disadvantage 11. burn 12. decay 13. strength 14. artificial 15. refer 16. require 17. equipment 18. turn 19. add 20. beauty 21. divide 22. main 23. timber 24. lime 25. secondary 26. auxiliary 27. bear 28. join 29. plane | свойство  строительный  цель  твердый (твердость)  прочный, долговечный (прочность)  огнестойкий, огнеупорный  скреплять  древний  легкий  недостаток  гореть, сжигать  гнить  прочность  искусственный  относиться  требовать  оборудование  зд. обращаться  добавлять  красота  разделить  основной  строительный лес  известь  вторичный  вспомогательный, дополнительный  поддерживать, подпирать  соединять  плоскость |

**УПРАЖНЕНИЯ К ТЕКСТУ “BUILDING MATERIALS”**

**I. К каждой данной паре слов вспомните русское слово с тем же корнем, что и английское:**

|  |  |  |  |
| --- | --- | --- | --- |
| 1. сharacteristic 2. compactness 3. porosity 4. concrete 5. industry 6. manufacture 7. combine 8. characteristics 9. modern | oтличительный,  типичный  плотность,компактность  пористая структура  бетон  промышленность  производство  соединять, сочетать  характерная особенность, свойство  современный | 1. rock 2. gypsum 3. cement 4. interior 5. structure 6. finish 7. natural   18. clay | горная порода, камень  гипс  цемент  внутренняя часть помещения  конструкция,  сооружение  отделка  природный  глина, глинозем |

**II. Вспомните значение следующих английских слов и подберите к ним эквиваленты из правого столбца:**

|  |  |
| --- | --- |
| 1. structural material 2. meet requirements 3. commonly used materials 4. mechanical strength 5. sound insulation 6. heat insulation 7. artificial building materials 8. crushed stone 9. come into general use 10. skilled labour 11. insulating properties 12. binding materials 13. interior parts of the building 14. bearing structures 15. interior finish 16. clay products | изоляционные свойства  отделка внутреннего помещения здания  работа, требующая высокой квалификации  вяжущие материалы  искусственные строительные материалы  щебень  удовлетворять требованиям  строительный материал  несущие конструкции  широко используемые материалы  звукоизоляция  внутренние части здания  механическая прочность  изделия из глины  теплоизоляция  стали широко использоваться |

**2 вариант**

**Прочитайте и переведите текст, обращая внимание на слова и выражения после текста:**

**STONE**

Stone has been used as a structural material since the earliest days. Almost of all famous buildings of classic times, of the medieval and Renaissance periods and of the eighteenth and early nineteenth centuries were erected of stone masonry. In some places stone was used because of the scarcity of timber, bin in other places stone was preferred because of its durability.

The stones, which are usually used for masonry work, are as follows:

1) *Granite* is very hard, strong and durable. It is used particularly for basements base courses, columns and steps and for the entire facades. Its colour may be gray yellow pink or deep red.

2) *Sandstone.* Sandstone is composed of grains of sand or quarts cemented together. Sandstones form one of the most valuable materials. The durability of sandstones depends very largely upon the cementing material.

Thus, there are different kinds of sandstones. Many sandstones are exceptionally hard and are selected for steps, sills etc. The excellent state of preservation of many ancient buildings built of this stone is evidence of this. But city buildings constructed of sandstone often assume a drab appearance owing to the dark colour. It is an excellent material for concrete aggregate.

3) *Marble* is a crystalline stone chiefly used for decorative purposes

White and black marbles are used for ornamental decoration where the beauty of the marble is shown to its best advantage.

|  |  |
| --- | --- |
| since  early  famous  medieval  erect  prefer  because of  particular(ly)  entire  compose  depend on  exceptional(ly)  excellent  preserve  evidence  assume  drab  appearance  purpose | с тех пор как, с  ранний  известный  средневековый  сооружать, воздвигать  предпочитать  из-за  особенный (особенно)  весь, целый  состоять  зависеть  исключительный (исключительно)  отличный  сохранять  свидетельство  принимать, допускать, предполагать  тускло-коричневый; темный  внешний вид  цель |

**УПРАЖНЕНИЯ К ТЕКСТУ “STONE”**

**I. К каждой данной паре слов вспомните русское слово с тем же корнем, что и английское:**

|  |  |
| --- | --- |
| structure  base  form  cement  select  column  steps  aggregate  ornamental  decoration | сооружение, здание, конструкция  основание, фундамент; основывать  составлять, являться  цементировать, скреплять цементным раствором  выбирать  колонна  шаги, ступени  заполнитель  фигурный, декоративный  украшение |

**II. Вспомните значение следующих английских слов и подберите к ним эквиваленты из правого столбца:**

|  |  |
| --- | --- |
| structural material  the earliest days  Renaissance period  stone masonry  scarcity of timber  as follows  base courses  valuable material  concrete aggregate  ornamental decoration  best advantage | бетонный заполнитель  ценный материал  основной венецм(каменной крепи)  строительный материал  фигурное украшение  давние времена  недостаток древесины  эпоха Ренессанса (Возрождения)  самое большое преимущество  каменная кладка  следующее |

**Тема 2.11. Композитные материалы**

**Самостятельная работа (проверка усвоения рамматических времен)**

1. Everybody looked tired and wanted to go … home.

a) - b) at c) to

2. Mr. Candy locked the door and … outside.

a) went b) goed c) goes

3. The weather … fine.

a) were b) was c) be

4.… sun was shining brightly in the cloudless sky.

a) A b) - c) The

5. He decided to go … home on foot.

a) at b) - c) over

6. The house he lived in was not far …and soon he was there.

a) away b) off c) about

7.… door was blocked by the police.

a) Mr. Candy b) Mr. Candys’ c) Mr. Candy’s

8. No matter how… , he couldn’t get in.

a) he tried hard b) hard he tried c) tried he hard

9. It wasn’t really funny because Mr. Candy … a date that night.

a) had b) has c) have

10. He felt … bit nervous.

a) a b) the c) -

11. Then he suddenly … to see his father.

a) wants b) wanted c) want

12. His father calmed him … .

a) away b) down c) of

13. Mr. Candy realized that everything that … wasn’t really important.

a) happened b) had happened c) happens

14. “Things … happen”, he thought.

a) do b) does c) did

**Тема 2.12. Стекло**

**Перевести ткст на английский язык**

В современной архитектуре стекло – поистине незаменимый материал. Стеклянные торговые центры и офисы в мегаполисах радуют глаз своей зеркальной поверхностью и солнечными бликами. Стекло хорошо сочетается с нержавеющей сталью. Привычный кирпич, а вместе с ним бетон и дерево постепенно уступают место такому, казалось бы, хрупкому материалу.

Обилие света в зданиях из стекла приводит к существенной экономии электроэнергии. Кроме того, в таком помещении работники ощущают себя очень комфортно и уютно, что положительно сказывается на производительности труда.

Стекло и зеркала в дизайне интерьеров визуально увеличивают площадь помещения. Дизайнеры уже давно используют для этих целей стеклянные и зеркальные двери, перегородки, полы, столешницы, дверцы шкафов-купе, часы и просто зеркала.

*[](https://www.informio.ru/files/images/2015/steklo_2.jpg)*

Вид, который открывается из помещения с прозрачными стенами, радует глаз и позволяет отдохнуть, отвлечься от монотонной работы. Вид на вечерний город порадует вас миллионами огней, а утром вы можете увидеть восход солнца во всем его великолепии. Прозрачные стеклянные здания привлекают к себе внимание и служат своего рода рекламой компании.

*[](https://www.informio.ru/files/images/2015/steklo_3.jpg)*

Существует несколько вариантов конструкции стеклянных перегородок: традиционная, с напольными роликами, имеющая потолочный рельс и «гармошкой». Последняя имеет некоторые преимущества, в числе которых возможность одним движением убрать или восстановить заграждение. В сложенном виде она очень компактна.

Перегородки из стекла могут быть симметричными и асимметричными, с облегченными петлями, с различным оформлением полотна. Законодателем мод в этой области являются итальянские дизайнеры, а конструкторы этой солнечной страны помогают им в полной мере воплотить задумки и идеи на практике.

*[](https://www.informio.ru/files/images/2015/steklo_4.jpg)*

Стеклянные витрины позволяют потенциальному покупателю, даже не входя в магазин, увидеть продаваемый в нем товар, что является ловким маркетинговым ходом. Их изготавливают из закаленного стекла, поэтому они чрезвычайно прочны. Огромные стеклянные витрины есть практически в каждом магазине. Это не удивительно, ведь они позволяют проходящему мимо потенциальному покупателю увидеть большую часть товаров.

*[](https://www.informio.ru/files/images/2015/steklo_5.jpg)*

*Рисунок 5. Стеклянные витрины.*

Стекло является гигиеничным и экологически чистым материалом, очень красивым и дающим широкие возможности реализации дизайнерских идей. Оно все активнее используется как в качестве оформления зданий, так и как строительный материал, эффектно реализуя свои удивительные качества.

И хотя такое стекло является довольно дорогим строительным материалом, его применение оправдывает способность особым образом оформлять экстерьер и интерьер. К тому же, такое решение позволяет сэкономить на отделочных работах.

**Тема 2.13-2.13 Металлы и сплавы**

**METALS AND THEIR USE**.

Задание 1:

Прочитайте и переведите данные ниже слова и словосочетания на русский язык:

Importance, industry, construction, consist, pure, combine, alloy, iron, copper, lead, cheap, produce, metallurgical, useful, property, strong, separate hardness, plasticity, combination, impurity.

Задание 2:

Подберите соответствующие русские эквиваленты английским словам из задания 1:

Железо, производить, промышленность, чистый, полезный, важность, пластичность, дешевый, медь, конструкция, свойство, сплав, состоять, свинец, твердость, соединять, примесь, сильный, металлургический, соединение, разделять.

Задание3:

Переведите на русский язык следующие словосочетания:

* engineering construction
* pure chemical elements
* combined with some other elements
* properties of alloys
* useful properties
* in different ways
* two thirds of all elements
* one point five two

Задание 4:

Переведите на русский язык следующий текст:

**METALS AND THEIR USE**

It is known that metals are very important in our life. Metals have the greatest importance for industry. All machines and other engineering construction have metal parts; some of them consist only of metal parts.

There are large groups of metals:  
1) Simple metals- more or less pure chemical elements.  
2) Alloys are materials consisting of a simple metal combined with other elements.

About two thirds of all elements found in the earth are metal, but not all metals may be used in industry. Those metals, which are used in industry, are called engineering metals. The most important engineering metal is iron (Fe) which, in the form of alloys with carbon (C) and other elements, finds greater use than any other metal. Metal consisting of iron combined with some other elements are known as ferrous metal; all the other metals are called nonferrous metals. The most important nonferrous metals are copper (Cu), aluminum (Al), lead (Pb), zinc (Zn), tin (Sn), but all these metals are used much less, than ferrous metals, because the ferrous metals are much cheaper.

Engineering metals are used in industry in the form of alloys because the properties of alloys are much better than the properties of pure metals. Only aluminum may be largely used in the form of a simple metal.

People began to use metals after wood and stone, but now metals are more important for our industry than these two old materials. Metals have such a great importance because of their useful properties. Metals are much stronger and harder than wood and that is why some engineering constructions and machines were impossible when people did not know how to produce and how to use metals. Metal is not so brittle as stone, which was the first, engineering material for people. Strength, hardness, and plasticity of metals are the properties, which made metals so useful for industry. It is possible to find some very plastic wood, but it will be much softer than many metals; stone may be very hard, but it is not plastic at all. Only metals have a combination of there three most useful engineering properties.

But it is much more difficult to get the metals from the earth in which they are found than to find some stone or wood, than is why people began to use metals after stone and wood. The first metal, which was produced by the people, was copper; iron was produced much later.  
Different metals are produced in different ways, but almost all the metals are found in the form of metal ore (iron ore copper ore, etc.)

The ore is a mineral consisting of a metal combined with some impurities. In order to produce a metal from some metal ore, we must separate these impurities from the metal; that is done by metallurgy.

Задание 5:

Ответьте на вопросы к тексту и составьте краткий пересказ текста:

 1. Which metal is the most important for industry?  
2. What is an alloy?  
3. Can all metals be used in industry?  
4. How do we call alloys consisting of iron combined with carbon?  
*5.*Why are ferrous metals used more largely then nonferrous?  
6. What properties of metals make them so useful for engineering?

Задание 6:

Заполните пропуски в предложениях в соответствии с содержанием текста:

1. Alloys are materials consisting of a simple metal combined-------------.

2. The most important nonferrous metals are-------------.

3. Metals have a great importance because-----------.

4.Stone may be very hard, but -----------------.

Задание 7:

Поставьте глаголы, данные в скобках в правильную форму:

1. Metals (to use) by man after wood and stone.

2. Engineering metals (to use) in industry in the form of alloys.

3. Different metals (to produce) in different ways.

4. The first metal which (to produce) by people was copper.

Задание 8:

Переведите следующие предложения на английский язык:

1. Самым важным из технических металлов является железо.

2. Железо используется в промышленности в форме сплава с углеродом.

3. Наиболее полезными техническими свойствами металлов являются твердость, прочность и пластичность.

4. Чистое железо не может быть использовано в промышленности потому, что оно очень мягкое.

Задание 9.

Раскройте скобки и поставьте прилагательные в нужной форме:

1. Nonferrous metals are used (little) than ferrous metals.

2. The ferrous metals are (cheap) than nonferrous metals.

3. Metals have the (great) importance for industry.

4. Metals are (important) for industry then stone and wood.

5. Wood is much (soft) then metals.

6. Strength, hardness and plasticity of metals are (useful) engineering properties.

**Тема 2.15-2.16 Кирпич и его свойство. Применение.**

**Перевести текст, написать 7 вопрсов к тексту**

**BRICK. TERRACOTTA. CERAMIC TILES.**

Brick, stone, and timber are known are to be the oldest building materials. Bricks belong to artificial (man-made) materials. Their production started in prehistoric times. Since then they have been produced and tested in all types of climate and in many countries. Thousands of years ago the builders in Egypt already knew the advantages of bricks and used them for construction. In those days the production of bricks was quite different from the modern one: bricks were produced not by burning but by drying in the sun, there being much sunshine in Egypt all the year round. Bricks work was also popular in Rome, there being very few growing forests and as a result little timber there.

In modern times bricks can be made of concrete, mortar, of burnt clay and of a combination of some other substances. For example, different types of clay and shale can be used as raw materials. Accordingly, bricks produced nowadays have different sizes, shapes, colours, and textures. Bricks also vary with the method of fabrication and temperatures of burning. It should be noted that some types of brick, such as, for example, salmon bricks are underburnt and highly porous. Naturally, their strength is extremely poor. This property of salmon bricks should be taken into account when choosing brick material for construction. But there exist many other types of brick that are extremely strong and almost glass hard. Between these extremes there lie some other types of bricks with different properties. Bricks properties are of great importance and should be taken into account while choosing material for construction purposes.

Brick belongs to artificial construction materials. It has been used in many countries and in different climates. In modern times bricks vary widely with the method of production and temperature of burning.

**Тема 2.17. Керамика**

**Прочитат и перевести текст**

**What Are Ceramics?**

Ceramics are a diverse group of materials that you’ll find in products such as: tiles, bricks, plates, glass, and toilets. The term, “ceramic materials,” is a wide-ranging category largely defined by a lack of organic substances (those based around carbon-hydrogen bonds) and metallic elements. Absent those components, ceramics may be composed of: clay, minerals, oxides, and other compounds. Essentially, ceramics are the materials that remain when we exclude organic and metallic materials.

Ceramics are refractory, meaning they are durable and can withstand high temperatures. They also resist high pressures and most chemical compounds and are generally poor electrical conductors. Most ceramics are non-magnetic. Some ceramics shatter easily, while others are very tough.

Ceramics are divided into two categories: traditional (like those found in pottery) and more modern ceramics (advanced ceramics). Advanced ceramics are engineered to have specific properties. Many, for example, are meant to be hard and durable. Ceramics are typically shaped at moderate temperatures and then heated or “fired” at high temperatures to create hard, durable materials that resist heat, wear, and corrosion. The material is considered to be ceramic once it is no longer soluble in water even if heated.

It is important here to differentiate between water solubility and porosity. Some ceramics are still porous, meaning that they will still absorb water, but they are not water-soluble. Ceramics can be found in a wide variety of products and applications including: tiles, bricks, engineering ceramics used in electronic devices, and aerospace components.

**Теиа 2.18-2.20 Растворы**

**Выполнение тренировочных упражнений**

***1.Choose a word to put into each gap:***

*Public, resultant, technological, private, meaningful, stability, assemblages,techniques, standardization, the load, the firmness, reinforcedconcrete, interchangeability, foundation, roof, mechanization, precast,built-in, the evolution, permanence, freeing, modular, a building.*

1. Among the common and necessary conditions are … and … of theconstruction. 2. Group housing provides home for many families and is atonce … and … . 3. The … of construction are influenced by the total …development of society. 4. One of the factures influenced … of techniques is the desire to produce … form. 5. … design has led to … of elements, …of parts and increased possibilities for mass production, with … economies.6. Entire apartment … are available and are being used to an increasingextent. 7. The high degree of … and standardization is successfullyachieved by … blocks and units. 8. A … is laid to carry … of a structure and to keep the walls and the floors from the contact with soil. 9. … ties a building and gives … to the structure. 10. Doors, windows, stairs, lifts are integral elements of … and they are always … or prefabricated. 11. There is a considerable trend toward … furniture. 12. Drawers and shelves can

often be concealed behind walls, … valuable floor space.

***2.These words can be used both as verbs and nouns. Make up your own sentences to show the difference in their usage:***

Nail, brace, tack, place, step, check, design, bolt, run, support, lift, weight.

**Тема 2.21.Бетон. Виды и свойства**

**Прочитать и перевести текст, составить таблицу «Different kinds of concrete»**

**Different kinds of concrete.**

Concrete is a mixture of portland cement, water, and aggregates. Aggregates are materials such as sand, gravel, crushed rock, and blast furnace slag The cement and water form a paste that binds the aggregates into a rocklike mass as the paste hardens. Builders generally use both a fine aggregate such as sand, and a coarse aggregate such as crushed rock, to make concrete. The aggregates must be free from silt, mud, clay, dust, and other materials that might weaken the concrete. The water used to make concrete should also be free from dirt and other impurities.

Concrete is highly fire-resistant, watertight, and comparatively cheap and easy to make. When first mixed, concrete can be molded into almost any shape. It quickly hardens into an extremely strong material that lasts a long time and requires little care.

Nearly all skyscrapers and factories and many homes stand on concrete foundations. These buildings may also have concrete frames, walls, floors and roofs. Concrete is used to build dams to store water and bridges to span rivers. Cars and trucks travel on concrete highways, and airplanes land on concrete runways.

Major kinds of concrete include *(1) reinforced concrete, (2) prestressed concrete, and precast concrete*.

*Reinforced concrete* is made by casting concrete around steel rods or bars. The steel strengthens the concrete. Almost all large structures, including skyscrapers and bridges, require this extra-strong type of concrete.

*Prestressed concrete* usually is made by casting concrete around steel cables stretched by hydraulic jacks. After the concrete hardens, the jacks are released and the cables compress the concrete. Concrete is strongest when it is compressed. Steel is strong when it is stretched, or in tension. In this way, builders combine the two strongest qualities of the two materials. Prestressed concrete beams, roofs, floors, and bridges are often cheaper for some uses than those made of reinforced concrete.

*Precast concrete* is cast and hardened before being used for construction. Precasting firms make concrete sewer pipes, floor and roof units, wall panels, beams, and girders, and ship them to the building site. Precasting makes possible the mass production of concrete building materials. Nearly all prestressed concrete is precast.

**Тема 3.31.Эволюция жилых построек**

**Прокетная работа- подготовить эскизы различных построек, отразить эволюцию эилых построек**

**Тема 3.33.Архитектура Двуречья и Древнего Ирана(подготовить проект)**

**Изобразить архитектуру Двуречья и Древнего Ирана**

**Тема 3.34.Архитектурные памятники государства Инков**

**Задание: написать эссе**

**Тема 3.35.Архитектура Древней** **Индии**

Indian Architecture: What Kind of Buildings are Popular in India?

Taj Mahal

Lotus Temple

Amber Fort, Rajasthan

Ajanta-Ellora Caves

Chand Baori

Sun Temple, Konark

Sanchi Stupa

Victoria Memorial

IIM Ahmedabad

Thikse Monastery

***Types of Architecture in India***

Temple Architecture Mughal Architecture Indo-Saracenic Revival Architecture Dravidian Architecture Kalinga Architecture Sikh Architecture Vesara Architecture Indian Vernacular Architecture Cave Architecture

**Taj Mahal**

**Taj Mahal** is a most attractive and popular scenery look historical place. It is located in the Agra, Uttar Pradesh. It is situated in very large area at very beautiful place having river on back side. It looks like natural scenery. It looks like a heaven on the earth. It is built using white marble. It attracts people’s mind from all over the world to see every year like a love at first sight. Taj Mahal is the symbol of the eternal love of the Shah Jahan who had built this in the memory of her wife Mumtaz Mahal. Taj Mahal is counted as one of the Seven Wonders of this World. It is the burial place (mausoleum) of the great Empress Mumtaz Mahal.



**Тема 3.36.Архитектура о. Крит**

**самостоятельная работа**

**Раскройте скобки, употребляя глаголы в Present Continuous, Present Simple, Past Simple или Future Simple.**

1. Mother (to cook) a very tasty dinner yesterday. 2. Tomorrow Nick (not to go) to school. 3. Look! My friends (to play) football. 4, Kate (not to write) letters every day. 5. You (to see) your friend yesterday? 6, Your father (to go) on a business trip last month? 7. What Nick (to do) yester-1 day? 8. When Nick (to get) up every morning? 9, Where your mother (to go) tomorrow? 10. I (to invite) my friends to come to my place tomorrow. 11. He (not to play) the piano tomorrow. 12. We (to see) a very good film last Sunday. 13. Your [mother (to cook) every day? 14. We (to make) a [fire last summer. 15. I (to spend) last summer at the sea-side. 16. Where you (to spend) last summer? 17. Where he (to spend) next summer? ! 18. What mother (to do) now? — She (to cook) dinner. 19. I (not to play) computer games yesterday. 20. Last Sunday we (to go) to the theatre. 21. I (to (meet) my friend yesterday. 22. I (to write) a letter [to my cousin yesterday. 23, You (to write) a dictation tomorrow? 24. I (not to write) a report now.

**Тема 3.37.Архитектура Древней Греции**

1. Who were some famous Greek architects?

**Iktinos and Kallikrates** were the architects credited with designing the Parthenon, though some sources such as the Roman architect and author, Vitruvius, also name Karpion as an architect as well.

2. Who is the most famous Greek architecture?

Ictinus, also spelled Iktinos, (flourished 5th century bc), Greek architect, one of the most celebrated of Athens, known for his work on the Parthenon on the Acropolis, the Temple of the Mysteries at Eleusis, and the Temple of Apollo Epicurius at Bassae.

3. Who started ancient Greek architecture?

Ancient Greek architecture came from **the Greek-speaking people (Hellenic people)** whose culture flourished on the Greek mainland, the Peloponnese, the Aegean Islands, and in colonies in Anatolia and Italy for a period from about 900 BC until the 1st century AD, with the earliest remaining architectural works dating from ….

4. What is a famous piece of architecture that was left by the ancient Greeks?

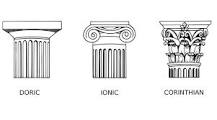
[[](https://www.google.com.ua/search?q=What+is+a+famous+piece+of+architecture+that+was+left+by+the+ancient+Greeks?&tbm=isch&source=iu&ictx=1&fir=5bU_XC3u9soAzM,pcKn82O9_8CfTM,_&vet=1&usg=AI4_-kRYNIpEdXcBnqNXfdu552YMQqxBNQ&sa=X&ved=2ahUKEwjKo8ya0sn0AhXkoosKHXLmD_0Q9QF6BAgHEAE#imgrc=5bU_XC3u9soAzM)](https://www.google.com.ua/search?q=What+is+a+famous+piece+of+architecture+that+was+left+by+the+ancient+Greeks?&tbm=isch&source=iu&ictx=1&fir=5bU_XC3u9soAzM%252CpcKn82O9_8CfTM%252C_&vet=1&usg=AI4_-kRYNIpEdXcBnqNXfdu552YMQqxBNQ&sa=X&ved=2ahUKEwjKo8ya0sn0AhXkoosKHXLmD_0Q9QF6BAgHEAE" \l "imgrc=5bU_XC3u9soAzM)

Considered the most significant surviving building of ancient Greece, **the Parthenon** is said to be the pinnacle of the Doric order.

5. What is the oldest building in ancient Greece?

Parthenon

6. What are three Greek architectural orders?

[[](https://www.google.com.ua/search?output=search&tbm=isch&q=What+are+three+Greek+architectural+orders?&source=iu&ictx=1&fir=6WZTfy8UVbrBtM,qMIpxjKsnxAtuM,_&vet=1&usg=AI4_-kQ0dk7A-2hcBAz12JBQNFOKBCgfsw&sa=X&ved=2ahUKEwjQqpSv0sn0AhXlsosKHeJwCvoQ9QF6BAgEEAE#imgrc=6WZTfy8UVbrBtM)](https://www.google.com.ua/search?output=search&tbm=isch&q=What+are+three+Greek+architectural+orders?&source=iu&ictx=1&fir=6WZTfy8UVbrBtM%252CqMIpxjKsnxAtuM%252C_&vet=1&usg=AI4_-kQ0dk7A-2hcBAz12JBQNFOKBCgfsw&sa=X&ved=2ahUKEwjQqpSv0sn0AhXlsosKHeJwCvoQ9QF6BAgEEAE" \l "imgrc=6WZTfy8UVbrBtM)

At the start of what is now known as the Classical period of architecture, ancient Greek architecture developed into three distinct orders: **the Doric, Ionic, and Corinthian orders**.

7. What is Greek architecture known for?

Greek architecture is known for **tall columns, intricate detail, symmetry, harmony, and balance**. The Greeks built all sorts of buildings. The main examples of Greek architecture that survive today are the large temples that they built to their gods.

**8.** What is a metope in Greek?

In classical architecture, a metope (μετόπη) is **a rectangular architectural element** that fills the space between two triglyphs in a Doric frieze, which is a decorative band of alternating triglyphs and metopes above the architrave of a building of the Doric order.

**9.** How does Greek architecture differ from ancient artworks?

Whereas the Greeks favored marble, the Romans invented concrete, and they relied on this key building material in much of their architecture. Romans also emphasized **circular forms** and made extensive use of the arch, vault, and dome in their building projects, unlike the post-and-lintel structure of Greek buildings.

**10.** How does Greek architecture differ from Baroque architecture?

**Greeks aimed for simple elegance whereas** the Romans emphasized grandeur. Romans used cement to make domes and improved structural devices such as columns and arches. You just studied 11 terms!

**11.** What makes Greek architecture classical?

Classical Greek architecture is **highly formalized in structure and decoration**, and is best known for its temples, many of which are found throughout the region as substantially intact ruins. ... Greek architectural style can be divided into three separate orders: the Doric Order, the Ionic Order, and the Corinthian Order.

**Тема 3.38.Архитектура Древнего Рима**

1. *What architecture is Rome known for?*

Roman architecture is famous for its **domes, arches, amphitheaters, temples**, thermaes (bath houses), atriums, aqueducts, apartments, houses, and for many other factors that made it unique. Art was often carved into the walls of stone buildings depicting battles, and famous Romans.

2. *What are 3 things Roman architecture?*

**Roman architecture is noted for a number of reasons, including:**

Arches. Domes. Aqueducts. Amphitheaters. Thermaes. Temples. Apartment Blocks. Houses

*3. What are the main features of Roman architecture?*

[[](https://www.google.com.ua/search?q=What+are+the+main+features+of+Roman+architecture?&tbm=isch&source=iu&ictx=1&fir=EAMnTH0sg7XI1M,1og4QYrmge3kwM,_&vet=1&usg=AI4_-kQCbi0WJgbvq3-kY2BH849q8CY99w&sa=X&ved=2ahUKEwjf1c7T1cn0AhUDmIsKHeQQAcMQ9QF6BAgIEAE#imgrc=EAMnTH0sg7XI1M)](https://www.google.com.ua/search?q=What+are+the+main+features+of+Roman+architecture?&tbm=isch&source=iu&ictx=1&fir=EAMnTH0sg7XI1M%252C1og4QYrmge3kwM%252C_&vet=1&usg=AI4_-kQCbi0WJgbvq3-kY2BH849q8CY99w&sa=X&ved=2ahUKEwjf1c7T1cn0AhUDmIsKHeQQAcMQ9QF6BAgIEAE" \l "imgrc=EAMnTH0sg7XI1M)

Some key structures in Roman architecture are **Basilica, Amphitheater, residential housing block, granary building, aqueducts, public baths, and triumphal arches**. The striking features of Roman architecture were the elements used, innovated, and mindfully executed by them.

4. *What is the most famous architecture in Rome?*

The Colosseum

**The Colosseum** is one of the most recognisable structures in the world. Built during the Flavian dynasty, between 70CE and 80CE – then known as the Flavian amphitheatre – it is the largest amphitheatre ever built and was modelled after the ancient Teatro Marcello.

5. *How did the Romans make architecture?*

Roman architecture developed **the use arches and vaults in architecture**. While Roman architecture may not have invented the arch or the vault, they certainly perfected them. These architectural forms allowed Roman architects to create large roofed structures without a reliance on pillars.

6. *What is the best example of Roman architecture?*

[[](https://www.google.com.ua/search?output=search&tbm=isch&q=What+is+the+best+example+of+Roman+architecture?&source=iu&ictx=1&fir=95SG_spJ0ftr2M,SuUj1l09lZSgmM,_&vet=1&usg=AI4_-kRfqkmNRG3q8C8EqRQIq13HitWLxA&sa=X&ved=2ahUKEwjYzrv-1cn0AhVi-yoKHft6BG8Q9QF6BAgKEAE#imgrc=95SG_spJ0ftr2M)](https://www.google.com.ua/search?output=search&tbm=isch&q=What+is+the+best+example+of+Roman+architecture?&source=iu&ictx=1&fir=95SG_spJ0ftr2M%252CSuUj1l09lZSgmM%252C_&vet=1&usg=AI4_-kRfqkmNRG3q8C8EqRQIq13HitWLxA&sa=X&ved=2ahUKEwjYzrv-1cn0AhVi-yoKHft6BG8Q9QF6BAgKEAE" \l "imgrc=95SG_spJ0ftr2M)

**Pantheon**  
  
The Pantheon is arguably the most well-preserved architectural marvel from the ancient Roman era.

7. *Where do we see Roman architecture today?*

[[](https://www.google.com.ua/search?output=search&tbm=isch&q=Where+do+we+see+Roman+architecture+today?&source=iu&ictx=1&fir=DEWDxpvzHbYIxM,dFdqFGlZRWIzeM,_&vet=1&usg=AI4_-kQJ46Z1vTzeIp-qllg50inH4QXTzg&sa=X&ved=2ahUKEwjZruKm1sn0AhXOlIsKHb6jCVUQ9QF6BAgGEAE#imgrc=DEWDxpvzHbYIxM)](https://www.google.com.ua/search?output=search&tbm=isch&q=Where+do+we+see+Roman+architecture+today?&source=iu&ictx=1&fir=DEWDxpvzHbYIxM%252CdFdqFGlZRWIzeM%252C_&vet=1&usg=AI4_-kQJ46Z1vTzeIp-qllg50inH4QXTzg&sa=X&ved=2ahUKEwjZruKm1sn0AhXOlIsKHb6jCVUQ9QF6BAgGEAE" \l "imgrc=DEWDxpvzHbYIxM)

Roman arches are also found in modern architecture, such as **the interior of Union Station in Washington D.C.** While initially developed by the Greeks, arches were incorporated into Roman architecture early on.

**Самостоятельная работа**

**1.. Interview your partner as an expert in ancient Greek architecture. Use the following words and expressions.**

Splendid relics of Hellenic art, gem, upper town, an architectural frame, an Ionic temple, treasuries, gateway, the rigid conventions of colonnade construction, a steeply rising site, precision, a rival.

**2.Translate into English.**

один из древнейших городов мира;замечательные памятник древнегреческого искусства;шедевр мировой архитектуры;небольшой скалистый холм;архитектурное обрамление;из золота и слоновой кости;

жесткие условия; была высокочтимым предметом культа; ионический храм;

не имеющий себе равных; на фризе здания; в честь богини Афины; сокровищницы в Дельфе периода архаики; соперник

***Контрольная работа№2***

**Вариант1.**

**Choose the correct preposition:**

**1.**… architecture, man is confined to a primitive struggle with the elements.

a) By b) At c) Without d) In

2. There are some characteristics that distinguish the work of architecture… other man-made structures.

a) From b) Behind c) With d) For

3. With architecture he has a defense… the natural environment.

a) In b) Behind c) Against d) under

4. The combination of experience and ideas… the work’s form is one of the functions of architecture.

a) With b) Between c) After d) Through

5. All these conditions must be met… architecture.

a) At b) In c) From d) On

***Keys:* 1c, 2a, 3c, 4a, 5b.**

**2. Read the text. Write about the main functions of architecture.**

**The art of architecture**

Architecture is the art and the technique of building, employed to fulfil the practical and expressive requirements of civilized people. Almost every settled society that possesses the techniques for building produces architecture. It is necessary in all but the simplest cultures; without it, man is confined to a primitive struggle with the elements; with it, he has not only a defence against the natural

environment but also the benefits ol a human environment, a prerequisite for the development of civilized institutions. The characteristics that *distinguish* a work of architecture from other man-made structures are (1) the suitability of the work to use by human beings in general and the adaptability of it to particular human activities; the stability and permanence of the work's construction; and (3) the communication of experience and ideas through its form. All these conditions must be met in architecture. The second is a constant, while the first and the third vary in relative importance according to the social function of buildings. If the function is chiefly utilitarian, as in a factory, communication is of less importance.

If the function is chiefly expressive, as in a monumental tomb, utility is a minor concern. In some buildings such as churches and city halls, utility and communication may be of equal importance.

**3. Complete the sentences.**

1.Almost every settled society that possesses the techniques for building produces… .

a) nature b) architecture c) struggle

**2.** It is necessary in all but the simplest … .

a) theories b) works c) cultures

**3.** With architecture, man has a prerequisite for the development of civilized … .

a) importance b) institutions c) symbols

**4.** The stability and permanence of the work's construction is a/an … .

a) idea b) form c) constant

**5.** If the function is chiefly utilitarian, communication is of less … .

a) importance b) condition c) benefit

**6.** In a monumental tomb, utility is a minor … .

a) feature b) concern c) experience

**7.** Utility and communication are equally important in churches and … .

1. markets b) plants c) city halls

**4. Match the words and their definitions.**

1. *Culture. 2. The elements. 3. Institution. 4. Technique. 5. Work.*

a) a method of doing something using a special skill that you have developed;

b) a society that has its own set of ideas, beliefs, and ways of behaving;

c) the weather, especially wind and rain;

d) something produced by a painter, writer, etc;

e) an important tradition on which society is based.

**5. Translate into English.**

требования цивилизованных людей;

борьба со стихией;

природная среда;

предпосылка и символ;

произведение архитектуры;

стихия;

**6. Choose the correct form of the verb.**

1. The domus or town house, (consisted/was consisted) of suites of rooms grouped around a central hall, or atrium.

2. Further suites (added/were added) at the rear.

3. Great blocks of flats or tenements were called insulae.

4. Excavations at Ostia, Italy, (have revealed/have been revealed) the design of these blocks.

5. The unevenness of the site necessitated large terraces and flights of steps.

6. The interior of the Pantheon (lined/was lined) with precious marbles.

7. The Colosseum (built/is built) of concrete.

8. The Baths of Caracalla (covered/were covered) an area about 1,000 feet square.

**Вариант2.**

1. **Guess the meanings of the following international words.**

Dominant, figure, internationally, system, proportion, human, basis, formulate, definition, correct, construction, transportation, postulate, machine, practically, mechanistic, aesthetic, rationality, plan, serial production, function, terrace, composition, interior, exterior, unique, architect, finally, epoch, tradition, urban, planning, scheme, centre, visual.

1. **Read the text and write about the sources and typical features of the style.**

**ART DECO**

The term Art Deco was coined from the title of an international design exhibition held in Paris in 1925 (Exposition des Arts Decoratifs / et Industriels Moderns).

During the twenties and early thirties, jazzy Art Deco architecture was the rage. Its sources were numerous — the austere shapes of the Bauhaus School and streamlined styling of modern technology combined with motifs taken from ancient Greece and Rome, the Far East, Africa, India, Aztec and Mayan cultures. But the most important was the influence of ancient Egypt. In 1922, the world was thrilled with the discovery of the King Tutankhamen’s tomb. Reporters and tourists thronged the site for a glimpse at treasures, which had laid nearly undisturbed for over 3,000 years. Soon a fascination for ancient Egypt found expression in advertising design, architecture, furniture, jewelry, and It‘s easy to overlook the Egyptian elements in the design of a posh theatre or a streamlined diner, a private residence or an office building. The very shape of these structures expresses admiration for orderly forms and primitive architecture. The terra-cotta facing

and strong vertical bands, zigzag designs and vivid colours are also typical Art Deco features borrowed from antiquity. The early Art Deco skyscrapers suggest Egyptian or Assyrian pyramids with terraced steps rising to the top. These structures may have complex groupings of rectangles or trapezoids. Sometimes two contrasting materials are used to create subtle bands of colour, a strong sense of line, or the illusion of pillars. The logical progression of steps and the rhythmical repetition of shapes resemble ancient architecture yet also celebrate a new, technological era. Vivid colour, strong lines and undulating, repeating patterns are a trademark of Art Deco design, especially in the Moderne Deco

works of the 1930 s. Some buildings are embellished with flowing waterfall effects. Others present colours in bold, geometric blocks. In Europe the main Art Deco works are Ruhlmann’s Paris exhibition rooms, Le Pavillion d’un Collectioneur (1925). In the USA, Art Deco was embraced by Raymond Hood, who designed three of the most distinctive buildings in New York City: the Radio City Music Hall auditorium and foyer, the RC A building at Rockefeller Center, and the New York Daily News building. The Chrysler Building by William van Allen and the Empire State Building by Shreve and Lamb are other greatest landmarks of Art Deco architecture. After 1935 Art Deco declined but has revived since the 1960s.

**3. Choose the correct word.**

**1.** Most of all, Art Deco expressed … over a stunning archeological find in Egypt.

a) concern b) thanks c) excitement

**2.** A fascination for ancient Egypt found expression in clothing, jewelry, furniture, design and architecture.

a) Graphic b) landscape c) retail

**3.** The terracotta…, strong vertical bands, zigzag designs are also typical Art Deco features borrowed from antiquity.

a) Face b) facility c) facing

**4.** The very shape of buildings expresses fascination for orderly forms and … architecture.

a) sophisticated b) primitive c) classic

**5.** Some buildings are embellished with flowing … effects.

a) Waterfall b) waterline c) watercolour

**4 . Match the sentences and tenses.**

1. Art Deco expressed excitement over an amazing archeological find in Egypt.

2. Reporters and tourists saw treasures, which had laid nearly undisturbed for over 3,000 years.

3. The very shape of these buildings expresses fascination for orderly forms and primitive architecture.

4. Art Deco was widely used in furniture design.

5. Sometimes two contrasting materials are combined to create the illusion of pillars.

6. Since the 1960 s Art Deco has become popular again.

*a) Present Simple Active; b) Present Perfect Active; c) Present*

*Simple Passive; d) Past Simple Active and Past Perfect Active; e) Past*

*Simple Active; f) Past Simple Passive.*

**5. Guess which parts of speech the following words from the text belong to.**

Means noun adjective noun

rough noun adjective noun

blocks noun adjective noun

widespread noun adjective noun

precedents noun adjective noun

merit noun adjective noun

boxlike noun adjective noun

**6. Translate into English.**

в начале З тысячелетия до нашей эры; более подходящий материал; внутреннее напряжение; по направлению волокна; сила сжатия; арматура; чугун; универсальный строительный материал; арматурные стержни.

**Тема 3.39.Архитектура Византии**

**Задание: превести текст на английский язык**

**Византийская архитектура** - это [архитектура](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Architecture) [Византийской империи](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Byzantine_Empire), или Восточной Римской империи, обычно датируемая 330 годом нашей эры, когда [Константин Великий](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Constantine_the_Great) основал новую римскую столицу в [Византии](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Byzantium), которая стала [Константинополем](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Constantinople), до [падения Византийской империи](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Fall_of_Constantinople) в 1453 году. Изначально не было жесткой границы между Византийской и Римской империями, и ранневизантийская архитектура стилистически и структурно неотличима от поздней [римской архитектуры](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Roman_architecture). Стиль по-прежнему основывался на арках, сводах и куполах, часто в больших масштабах. Настенные [мозаики](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Mosaic) с [золотым фоном](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Gold_background) стали стандартом для самых величественных зданий, а [фрески](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Fresco) стали более дешевой альтернативой.

Самые роскошные интерьеры были отделаны тонкими пластинами [мрамора](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Marble) или разноцветного узорчатого камня. Некоторые колонны также были выполнены из мрамора. Другими широко используемыми материалами были кирпич и камень. Мозаики из камня или стекла [с тессерами](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Tesserae) также являлись элементами внутренней отделки. Мебель из ценных пород дерева, такая как кровати, стулья, табуреты, столы, книжные полки и серебряные или золотые кубки с красивыми рельефами, украшала византийские интерьеры.

Ранневизантийская архитектура основывалась на более ранних элементах римской и греческой архитектуры. [Стилистические новшества](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Timeline_of_architectural_styles), [технический прогресс](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Pendentive), а также [политические](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Byzantine_Iconoclasm) и территориальные изменения привели к тому, что в [архитектуре церквей](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Cross-in-square) постепенно сформировался особый стиль [греческого креста](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Church_architecture).  Гражданская архитектура продолжала следовать [греко-римским](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Greco-Roman_world) традициям; византийцы строили впечатляющие фортификационные сооружения и мосты, но, как правило, не [акведуки](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Aqueduct_(bridge)) таких же размеров, как у римлян.

Эта терминология была введена современными историками для обозначения средневековой [Римской империи](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Roman_Empire), которая развивалась как самобытное художественное и культурное образование с центром в новой столице Константинополе (современном [Стамбуле](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Istanbul)), а не в городе [Риме](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Rome) и его окрестностях. Ее архитектура оказала огромное влияние на более позднюю [средневековую архитектуру](https://translated.turbopages.org/proxy_u/en-ru.ru.d84680d7-667c8fdd-e6b4689d-74722d776562/https/en.wikipedia.org/wiki/Medieval_architecture) по всей Европе и на Ближнем Востоке.

**Тема 3.40.Архитектура стран Западной Европы**

Задание: выполните упражнения.

**Упражнение 1.Complete *must, mustn’t, can, can’t, may.***

1. You…… not play here. A street is not a playground.

– May I put it here?

– Yes, you……

2. They have fish hooks (крючки), so they……. fish.

3. You ….. not enter the club without the card.

4. ……. I take your books?

5. Jane has got 2 books and she ….. read any of them.

6. 7. If you are travelling by air, you……. carry a weapon (оружие) in your luggage.

7. I can read Spanish, but I ….. speak it.

– Where is Helen?

– She…… go shopping.

8. You haven’t eaten since morning. You …… be hungry.

**Упражнение 2. Переведите на русский язык следующие предложения.**

1. I can show you an interesting picture of the city.

2. He can give you his report on the life of Jack London.

3. His brother could play the piano very well.

4. She could translate these English texts.

5. We must attend a lecture on German history on Tuesday.

6. You must return my magazines on Wednesday.

7. You must take your children to the country for the weekend.

8. I must go to see your grandmother on my day off.

9. You may discuss these questions after work.

10. They may take four magazines from that shelf.

11. She may sit on the sofa in my study.

**Тема 3.41.Архитектура Арабского Халифата, Ирана, Турции**

**Задание: перевести текст**

**АРХИТЕКТУРА ТУРЦИИ** (XII–XIX вв.). Турецкая государственность сложилась позже, чем арабская. Племена турок – Огузов (по имени хана Огуза) создали свою державу в XI в. в Средней Азии, вытеснив оттуда печенегов, затем в середине XI в. под натиском кипчаков часть огузов переместилась в Хорасан под защиту иранского рода Сельджуков. Вторгшиеся во второй половине XI в. В Малую Азию турки-огузы или сельджуки приняли культуру покоренных народов. Культура турок представляет собой синтез двух цивилизаций – кочевой и оседлой. В Анталии повсеместно встречаются Хеттский храм соседствую-щий с фригийским, греческий – с римским, армянская церковь с византийской, сельджукский минарет с османским. История архитек-туры Турции подразделяется на три периода: Сельджуков (XI–XIII в.) период Османского княжества (XIV–XV вв.). период Османской империи (XV–XX вв.).

**Архитектура Ирана** XI–XV века В XII в. во многих городах Ирана стали строить большие четырехайванные мечети со святилищем, обращенным в сторону Мекки. В архитектуре продолжались традиции средневековых зодчих. Кроме традиционного арочного свода стала применяться двойная оболочка купола, что позволяло перекрывать большие пролёты зданий. Строились комплексы различных архитектурных стилей. Самым значительным памятником нового типа является соборная мечеть в Исфахане, включающая множество разнотипных зданий. Её строительство началось ещё в IX в. с небольшой постройки и закончилось в XVII в. Общая длина мечети 170 м, ширина 140 м. В прямоугольный двор мечети выходят четыре айвана, украшенные огромными пештаками. За аркадой двора размещены молитвенные залы с квадратными столбами, несущими арки и кирпичные своды. В исфахан-ской соборной мечети сохранилось более 470 различных сводчатых перекрытий. В соборной мечети воплотились лучшие черты Домонгольской архитектуры. Большие четырехайванные мечети XI–XII вв. сохранились в Ардестане, Казвине и других городах. Рядом с мечетями возвышались минареты. Иранский минарет представляет собой высокую и тонкую круглую в сечении башню с балкончиком. Конструктивная связь кладки лестницы и стен придает иранским минаретам удивительную сейсмостойкость. По высоте иногда минарет делился на два яруса. Нижний имел граненую форму. Строгость, свойственная иранской архитектуре XI–XII вв. не исключала, однако, применения орнаментальной декорации. В это время господствовала монохромная декорация: резьба по стуку, кладка из фигурных кирпичей или облицовка покрытыми узором терракотовых плиток. Узорная кирпичная кладка получила большое развитие в Хорасане и является одной из особенностей местной архитектурной школы. Таким образом, в XI–XII вв. именно в Иране сложились основные типы монументальных построек средневековой эпохи. В 1256 г. в Иран с Востока вторглись войска кочевников под предводительством внука Чингисхана–Хулагу. Образовалось государ-ство династии Хуладунгов. С 1393 г. Иран входит во владения Тимура и до 1500 года остаётся провинцией государства Тимурандов. Монгольское нашествие нанесло тяжелый удар культуре Ирана и на время приостановило строительную деятельность. Архитектура XIII–XIV вв. развивает традиции предшествующего периода. В большом числе дошли до нас культовые здания: мечети, медресе и мавзолеи.

**Тема 3.42.Архитектура эпохи возрождения**

**Задагие:читать и переводить текст**

**The Renaissance**

The Renaissance began in Italy, where there was always a residue of classical feeling in art. Knowledge of the classical style in architecture was derived during

the Renaissance from two sources: the ancient classical buildings, particularly in Italy but also in France and Spain and the treatise De architectura by the Roman architect Vitruvius. For classical antiquity and, therefore, for the Renaissance, the basic element of architectural design was the order, which was a system of traditional architectural units. During the Renaissance five orders were used,

the Tuscan, Doric, Ionic, Corinthian, and Composite, with various ones prevalent in different periods. For example, the ornate, decorative quality of the Corinthian order was embraced during the early Renaissance, while the masculine simplicity and strength of the Doric was preferred during the Italian High Renaissance. On the authority of Vitruvius, the Renaissance architects found a harmony between the proportions of the human body and those of their architecture. There was even a relationship between architectural proportions and the Renaissance *pictorial* device of perspective. The concern of these architects for proportion caused that clear,

measured expression and definition of architectural space and mass that differentiates the Renaissance style from the Gothic and encourages in the spectator an immediate and full comprehension of the building. In the early 15th century an Italian architect Filippo Brunelleschi formulated linear perspective, which was to become a basic element of Renaissance art. His brilliant work, the *loggia* of the Ospedale degli Innocenti (1419–51) was the first building in the

Renaissance manner. A very graceful *arcade* was designed with Composite columns, and windows with classical *pediments* were regularly spaced above each of the arches. Donato Bramante's Tempietto San Pietro in Montorio (1502)

symbolized the beginning of the High Renaissance style in Rome. *Erected* on the supposed site of the martyrdom of St. Peter, the Tempietto is circular in plan, with a colonnade of 16 columns surrounding a small cella, or enclosed interior sanctuary. St Peter’s Cathedral, the work of great masters, is the largest church in the Christian world. Its architectural history shows the way in which the Baroque emerged out of the Renaissance. In Russia the Renaissance is represented by the works of Italian masters (the Moscow Kremlin, the 15th — 16th centuries.)

The cathedral of the *Assumption* was built in 1475–1479 by Aristotile Fioravante on the site of an old church dating back to the reign of Ivan Kalita. By combining the characteristic features of the Vladimir-Suzdal and early-Moscow style with Italian Renaissance decoration and construction methods Fioravante produced a

masterpiece of lasting beauty. Another example is the Cathedral of the Archangel Michael, designed by Alevisio Novi in 1505–1508. The Granovitaya Palata (Faceted Palace, 1487–91) was built by Russian craftsmen according to the design of Italian architects Marco72Unit 9. The rebirth of classical artRuffo, Aloisio da Carcano, and Pietro Antonio Solari. Its eastern facade is faced with faceted white stones, hence the name.

**Тема 3.43.Архитектура стран Северной и Южной Америки**

**Самостоятельная работа**

**1.Переведите предложения.**

1) Who’s been talking over the phone for so long?

2) Have you ever been to the Arab Emirates?

3) What’s Jack doing here? – He’s looking for Ann.

4) Did you meet Nick at the disco yesterday?

5) He told me everything only after he had learnt all the information.

6) Helen doesn’t love him any more, she’s got a new boyfriend.

7) Will you help me tidy the room?

8) We were watching TV when he came in and started shouting at Jane.

9) I’m happy! I’ve found a good job, met a nice girl, rented a good flat, won 1000$ in a lottery.

10) What’s the news? – Rita is getting married.

11) How long have you been studying law?

12) Come to me in 20 minutes, I’ll be making a cake.

13) I’m s ure, Sarah will pass all the exams.

14) They don’t live here any more. They live in Vegas, as far as I remember.

15) Who knows anything about Kate? – She left for LA a week ago.

**Упражнение 2.Постройте отрицательные предложения.**

*don’t; doesn’t; aren’t; isn’t; haven’t; hasn’t; won’t; hadn’t; weren’t; didn’t*

1) We attend a gymnasium.

2) I’ve done my homework.

3) Nelly is writing now.

4) Alice lives in London.

5) He’s lost his key.

6) Dad will come home in 2 hours.

7) My friends were at night club yesterday.

8) She’ll be watching her favorite soap opera when I come home.

9) The girls bought a nice present for Irene.

10) I speak English.

**Тема 3.44.Русская архитектура – 2.45 Архитектура района проживания**

**Подготовить макет памятника русский архитектуры**

**Тема 3.53.Фундамент и его виды**

1. ***Match the columns:***

|  |  |
| --- | --- |
| * 1. raft foundation | a) is basically a strip, or ribbon, of insitu concrete running under all the loadbearing walls |
| * 1. strip foundation | b) is used to support individual point load such as that due to a structural column |
| * 1. pad foundation | c) is used to spread the load from a structure over a large area, normally the entire area of structure |

**2 *a) What is the purpose of foundations? Express your opinion in 3-5 sentences.***

***Read the following passages and compare your ideas:***

1. The main purpose of the foundation is to distribute the structural load over a large bearing area without causing bearing capacity failure and excessive settlement to obtain a level and hard strata or bed for building operations to increase the stability of the structure as a whole.
2. A good strong foundation ensures good strong stable ground for a good strong and lasting structure. If you build a house on sand and the sand around one of the corners of the house washes away due to rain water falling off your building the building will begin to sink in that corner and the result will eventually begin cascading further along the buildings edges and sides until the entire building is consumed by leaning caused by unstable ground.
3. При наших совсем не «плюсовых» зимах слой грунта сверху промерзает. Вода, содержащаяся в нем, замерзает и  расширяется. И грунт вспучивается, в зависимости от количества воды в его замерзшем слое. Коэффициент расширения у сильнопучинистых грунтов иногда достигает 12%, а обычно – около 10%. Это означает, что при глубине промерзания 1,7 м грунт может приподняться на 10-15 см.  Чтобы эти зимние вспучивания не разрушили или не перекосили дом, и нужен фундамент.

**Тема 3.54.Стены. Виды стен**

[](http://redimage.ru/t/photos/52/800/R0024790-w.jpg)[](http://upload.wikimedia.org/wikipedia/commons/f/fa/Great_Wall_of_China_July_2006.JPG)[](http://upload.wikimedia.org/wikipedia/commons/5/5d/Berlinermauer.jpg)

[](http://upload.wikimedia.org/wikipedia/commons/a/a1/PrahaJohnLennon1993.jpg)[](http://upload.wikimedia.org/wikipedia/commons/e/e6/London_Wall_fragment.jpg)[](http://www.ljplus.ru/img3/s/e/sexahalas/DSC01411.JPG)

***Match information to the pictures:***

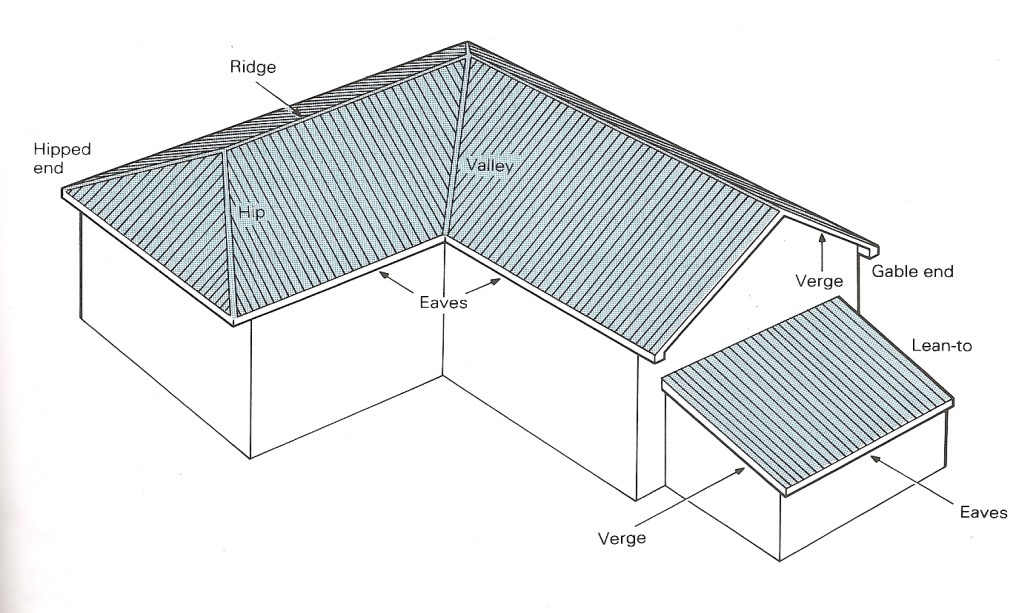
|  |
| --- |
| **1.** It is a series of stone and earthen [fortifications](http://en.wikipedia.org/wiki/Fortification) built originally to protect the northern borders of the  [Empire](http://en.wikipedia.org/wiki/History_of_China).All the walls measure 8,851.8 km. This is made up of 6,259.6 km sections of actual wall, 359.7 km of trenches and 2,232.5 km of natural defensive barriers such as hills and rivers. |
| **2.** Known also as the Western Wall, it is located in the [Old City of Jerusalem](http://en.wikipedia.org/wiki/Old_City_(Jerusalem)) at the foot of the western side of the [Temple Mount](http://en.wikipedia.org/wiki/Temple_Mount). It has been a site for Jewish prayer and pilgrimage for centuries. |
| **3.** It is a defensive wall that surrounds the [Kremlin](http://en.wikipedia.org/wiki/Moscow_Kremlin), recognizable by the characteristic notches and its [towers](http://en.wikipedia.org/wiki/List_of_Moscow_Kremlin_towers). The original walls were likely a simple wooden fence with guard towers built in 1156. |
| **4.** It was a barrier constructed in 1961 that completely separated the country. The barrier included guard towers placed along large concrete walls, which circumscribed a wide area (later known as the "death strip") that contained anti-vehicle trenches, "[fakir beds](http://en.wikipedia.org/wiki/Bed_of_nails)" and other defenses. The fall of the Wall paved the way for [country reunification](http://en.wikipedia.org/wiki/German_reunification), which was formally concluded on 3 October 1990. |
| **5.** The wall is in [Prague](http://en.wikipedia.org/wiki/Prague), [Czech Republic](http://en.wikipedia.org/wiki/Czech_Republic). Once a normal wall, since the 1980s it has been filled with [graffiti](http://en.wikipedia.org/wiki/Graffiti) and pieces of lyrics from [Beatles](http://en.wikipedia.org/wiki/The_Beatles) songs. Today, the wall represents a symbol of youth ideals such as [love](http://en.wikipedia.org/wiki/Love) and [peace](http://en.wikipedia.org/wiki/Peace). |
| **6.** It was a [defensive wall](http://en.wikipedia.org/wiki/Defensive_wall) first built by the [Romans](http://en.wikipedia.org/wiki/Ancient_Rome) around [Londinium](http://en.wikipedia.org/wiki/Roman_London), their strategically important port town on the [River Thames](http://en.wikipedia.org/wiki/River_Thames). Until the later Middle Ages the wall defined the boundaries of the City. Today all that remains of the wall are a few fragments, some of which can be seen in the grounds of the [Museum of London](http://en.wikipedia.org/wiki/Museum_of_London), in the [Barbican Estate](http://en.wikipedia.org/wiki/Barbican_Estate) and around [Tower Hill](http://en.wikipedia.org/wiki/Tower_Hill,_London). |

**Тема 3.55.Кладка из кирпича**

**Fill in the gaps with derivatives of the words in capitals:**

|  |  |
| --- | --- |
| **BUILDING MATERIALS for EXTERNAL WALLS**  **Part I**  Some 1) \_\_\_\_\_ methods use locally available materials and techniques that are economical and 2) \_\_\_\_\_ sound. Many different types of material are available, but the two main 3) \_\_\_\_\_ for building materials are stability and durability.  The tree most common materials for external walls are:  4) \_\_\_\_\_ stone, bricks, cement-based blocks.  Cement-based blocks should be 5) \_\_\_\_\_in detail.  They are manufactured from a 6) \_\_\_\_\_ of ingredients. The cement binds the aggregate that forms the bulk of the block into a firm 7) \_\_\_\_\_ material. The strength and 8) \_\_\_\_\_ of the block depends on the type of aggregate used with the cement.  Blocks consist of natural materials that are 9) \_\_\_\_\_ and cured such as:   1. sand (sandcrete (Portland cement and sand in a ratio of circa 1:8)). The sand is mixed with the cement in 1:4 or 1:6 proportions; 2. stone (concrete). The 10) \_\_\_\_\_\_ blocks are made from a mixture of cement, sand and crushed stone. | **CONSTRUCT**  **ECOLOGICAL**  **REQUIRE**  **NATURE**  **CONSIDER**  **MIX**  **BUILD**  **DURABLE**  **MOULD**  **STRONG** |

**Тема 3.56.Крыша. Ее функции -3.57 Виды крыщ**

**

1. ***Match the columns to remember some technical words for parts of a roof. Figure 9.1 may help you*:**

|  |  |
| --- | --- |
| 1. covering | a) a thin timber board that is fixed to the end of rafters or roof joints to support the gutters |
| 1. eaves | b) a short rafter that spans the hip and eaves or valley and ridge |
| 1. fall | c) the horizontal board that can be fixed to finish the roof structure at the eaves |
| 1. fascia | d) it can be: a) a horizontal timber member that provides support to the rafters; b) a timber member spanning between roof trusses that supports roof sheets |
| 1. hip | e) the horizontal distance between the supports of structural members such as the rafters |
| 1. jack rafter | f) the timber member fixed to the top of a wall to secure a flat roof joist or rafter |
| 1. pitch | g) the timber member that spans from the eaves to the ridge in a pitched roof |
| 1. purlin | h) a timber at the apex of the roof that takes the tops of the rafters |
| 1. rafter | i) the bottom end of the roof where it meets the wall |
| 1. ridge | j) the point where two inclined roof surfaces meet over an internal angle |
| 1. ridge tile | k) the external material that is laid over the roof structure to protect the inside of the building |
| 1. soffit | l) the edge of a roof that meets a gable wall |
| 1. span | m) a tile that caps the top of the roof |
| 1. valley | n) the angle formed by the slope of the roof |
| 1. verge | o) the slope required on flat roofs for water run-off |
| 1. wall plate | p) the point where two inclined roof surfaces meet over an external angle |

**Тема 3.58.Перекрытия -3.69- Перегородки**

***1.Give the English equivalents to the following and use 5 of them in small situations:***

покрытие (обшивка); удерживать тепло; утеплять; удовлетворять основным стандартам; без повреждений; обеспечивать доступ света и вентиляции; несущая/ опорная конструкция; дополнительное пространство; края крыши; два уклона образуют прямой (90°) угол; опираться на стену; влиять на строительное проектирование; плоская керамическая черепица; виды кровли; легко построить; легко содержать и обслуживать; стойкий против атмосферных влияний; водонепроницаемое покрытие; изоляция; несущая стена; обшивка досками; оцинкованный; стенная балка; заделанный в раствор; вокруг стропила.

***2.Translate the sentences from Russian into English. Be ready to present them not looking at the English equivalents:***

1. Для отвода воды с крыши ее верхнюю плоскость (скат) выполняют наклонной; по величине угла наклона различают три группы крыш: крутые (с уклоном ската более 15%), пологие (от 4 до 15%), плоские (2 - 3%).

2. Крыши с теплым чердаком выполняют с несущими конструкциями только из же­лезобетона и применяют в многоэтажных жилых домах при использовании чердачного пространства в качестве воздухосборной камеры вентиляционной системы здания.

3. Ребра пересечения скатов имеют следующие названия - го­ризонтальное верхнее - конек крыши, выступающее наклонное - накосное ребро, запа­дающее наклонное - разжелобок или ендова.

4. Висячие стропила или фермы применяют при отсутствии внутренних опор; их обязательным элементом служит затяжка, объединяющая нижние концы стро­пильных ног.

**Тема 3.59.Окна и двери**

**Самостоятельная работа**

1. Anna and Kate \_\_\_\_\_\_\_\_\_ to the cinema last Sunday.

 A) didn’t went  B) don’t go  C) didn’t go

 2. I had breakfast \_\_\_\_\_\_\_\_ ago.

 A) this morning  B) three hours  C) 7.30 a.m.

 3. When \_\_\_\_\_ you last \_\_\_\_\_\_\_ tennis?

 A) did/play  B) do/play  C) did/played

 4. \_\_\_\_\_\_ you like \_\_\_\_\_\_\_ coffee?

 A) do/any  B) are/some  C) would/some

 5. There isn’t \_\_\_\_\_\_\_\_milk in the fridge.

 A) many  B) much  C) a

 6. Have you got \_\_\_\_\_\_\_\_\_ brothers?

 A) some  B) any  C) the

 7. The buildings in Venice are \_\_\_\_\_\_\_\_\_\_ the buildings in New York.

 A) older than  B) more older than  C) much old than

 8. Vienna is \_\_\_\_\_\_\_\_\_\_ city in Austria.

 A) the most beautiful  B) the beautiful lest  C) more beautiful than

 9. This restaurant is very, very good. It's \_\_\_\_\_\_\_\_\_\_ restaurant in London.

 A) the better  B) the good  C) the best

 10. I \_\_\_\_\_\_\_\_ a jumper and a jacket because it's cold today.

 A) wear  B) 's wearing  C) 'm wearing

 11. \_\_\_\_\_\_\_\_ Jim \_\_\_\_\_ today?

 A) Do / work  B) Is / working  C) Does / works

 12. Look, it's very cloudy. It \_\_\_\_\_\_\_\_\_\_ .

 A) 's going to rain  B) rainy  C) raining

 13.When \_\_\_\_\_ Polly \_\_\_\_\_ with her friend in Madrid?

 A) does / going to stay  B) — / is going to stay  C) is / going to stay

 14. I'm going to Egypt \_\_\_\_\_\_\_\_\_\_\_ the pyramids.

 A) seeing  B) to see  C) going to see

 15. \_\_\_\_\_\_\_\_\_ did you buy your jacket?' 'At a shop in town.'

 A) When  B) Why  C) Where

 16. 'How much did you pay for your book?' \_\_\_\_\_\_\_\_\_\_\_\_

 A) £8.50  B) Hewitt's Bookshop  C) To read some Shakespeare

 17. \_\_\_\_\_\_ you ever \_\_\_\_\_ Mexican food?

 A) Have / eat  B) Have / ate  C) Have / eaten

 18. Olivia \_\_\_\_\_\_\_\_\_\_ to Rome.

 A) has never been  B) has ever been  C) hasn't never been

 19. 'I've met Robbie Williams.' 'When \_\_\_\_\_\_\_\_\_\_ ?'

 A) have you met  B) did you met him  C) did you meet him

 20. Raquel and James have \_\_\_\_\_\_\_ had a baby.

 A) yet  B) just  C) ever

 21. Has Nigel cooked dinner \_\_\_\_\_ ?

 A) yet  B) ever  C) just

 22. \_\_\_\_\_\_\_\_ 's the weather like in Mexico City?

 A) low  B) What  C) Which

 23. My grandmother started work \_\_\_\_\_\_\_\_1960.

 A) in  B) by  C) on

 24. It's snowy — please drive \_\_\_\_\_ .

 A) carefully  B) easily  C) careful

 25. Let's go for a \_\_\_\_\_\_ swim.

1. quick  B) badly  C) well

**Тема 3.61.Веранды. Террасы**

**Тренировочные упражнения**

 I \_\_\_\_\_\_\_\_ a jumper and a jacket because it's cold today.

 A) wear  B) 's wearing  C) 'm wearing

 2. \_\_\_\_\_\_\_\_ Jim \_\_\_\_\_ today?

 A) Do / work  B) Is / working  C) Does / works

 3. Look, it's very cloudy. It \_\_\_\_\_\_\_\_\_\_ .

 A) 's going to rain  B) rainy  C) raining

 4.When \_\_\_\_\_ Polly \_\_\_\_\_ with her friend in Madrid?

 A) does / going to stay  B) — / is going to stay  C) is / going to stay

 5. I'm going to Egypt \_\_\_\_\_\_\_\_\_\_\_ the pyramids.

 A) seeing  B) to see  C) going to see

 6. \_\_\_\_\_\_\_\_\_ did you buy your jacket?' 'At a shop in town.'

 A) When  B) Why  C) Where

 7. 'How much did you pay for your book?' \_\_\_\_\_\_\_\_\_\_\_\_

 A) £8.50  B) Hewitt's Bookshop  C) To read some Shakespeare

8. Vienna is \_\_\_\_\_\_\_\_\_\_ city in Austria.

 A) the most beautiful  B) the beautiful lest  C) more beautiful than

 9. This restaurant is very, very good. It's \_\_\_\_\_\_\_\_\_\_ restaurant in London.

 A) the better  B) the good  C) the best

10. He felt … bit nervous.

a) a                        b) the                       c) -

11. Then he suddenly … to see his father.

a) wants                 b) wanted                c) want

12. His father calmed him … .

a) away                  b) down                   c) off

13. Mr. Candy realized that everything that … wasn’t really important.

a) happened           b) had happened      c) happens

14. “\_\_\_\_\_\_ anything \_\_\_\_\_\_ from the flat,” asked the policeman.

a) Is ... disappeared     b) Did ... disappear      c) Has ... disappeared

15. “I \_\_\_\_\_\_ the letter you asked about, sir,” said the butler.

a) brought                   b) ‘ve brought              c) ‘s brought

16\_\_\_\_\_\_ you \_\_\_\_\_\_ dinner already?

a) Did ... have            b) Were ... having         c) Have ... had

17. Mr. Candy was sure that his life … change greatly soon.

a) will                   b) would                  c) shall

18. An interesting story happened … my friends last year.

a) to                      b) with                      c) on

 19.… painting disappeared from my friends’ house.

a) The                   b) A                          c) -

20. Raquel and James have \_\_\_\_\_\_\_ had a baby.

 A) yet  B) just  C) ever

 21. Has Nigel cooked dinner \_\_\_\_\_ ?

 A) yet  B) ever  C) just

 22. \_\_\_\_\_\_\_\_ 's the weather like in Mexico City?

 A) low  B) What  C) Which

23. My grandmother started work \_\_\_\_\_\_\_\_1960.

 A) in  B) by  C) on

 24. It's snowy — please drive \_\_\_\_\_ .

 A) carefully  B) easily  C) careful

 25. Let's go for a \_\_\_\_\_\_ swim.

 A) quick  B) badly  C) well

**Тема 3.62.Внутренняя отделка стен**

***Use the words bellow to complete the sentences:***

**BUILDING MATERIALS for EXTERNAL WALLS**

The external wall of a building provides weather 1) \_\_\_\_\_ and must be durable and fire resistant even if it is not built from load-bearing materials such as brick, block and stone. *Corrugated iron sheet* or *timber 2) \_\_\_\_\_* is classified as non-load bearing.

*Iron sheets* must be supported on a 3) \_\_\_\_\_ with columns that transfer the building loads and wind pressure from the structure to the foundation. The columns transfer point loads to the foundation, unlike the evenly distributed 4) \_\_\_\_\_ transferred by the load-bearing wall to strip foundations.

Corrugated 5) \_\_\_\_\_ sheets have disadvantages as a building material for external walls for housing:

1. very poor thermal insulation;
2. very poor 6) \_\_\_\_\_ insulation;
3. they are difficult to decorate internally because they require an internal lining to attach fixtures and fittings;
4. the general appearance does not look as homely as conventional materials.

*Timber cladding* is the other material used for non-load-bearing external walls. The structural framework consists of a timber roof supported by timber columns on a 7) \_\_\_\_\_ foundation. Lightweight prefabricated timber wall frames are secured to the timber 8) \_\_\_\_\_.

Timber cladding usually consists of plywood, chipboard or hardboard panels. They are nailed or 9) \_\_\_\_\_ to the framework so that the heads of the nails or screws are below the surface of the board. The holes should be 10) \_\_\_\_\_ so that the surface of the board is even.

|  |
| --- |
| cladding loads filled columns resistance screwed framework iron sound raft |

**Тема 3.63.Подвесной потолок**

**Написать эссе**

**Types of Ceiling used in Building Construction**

Now we will discuss types of ceiling. This would give an idea to decide what would work best for a new building construction as you have many options for the same. The types are:

* Exposed Ceilings
* Tightly attached ceiling
* Interstitial ceilings
* Acoustical Ceilings
* Radiant Chilled Ceilings
* Convective Chilled Ceilings
* Suspended Ceilings

**Тема 3.64.Пол. Напольные покрытия**

**1 *Match the idioms with the definitions and use them in your own situations*:**

|  |  |
| --- | --- |
| 1. to take a floor | a) to become involved in something from the beginning |
| 2) to get in on the ground floor | b) to leave one's party entirely and join another party |
| 3) to floor someone | c) to pace nervously while waiting |
| 4) walk the floor | d) to stand up and address the audience |
| 5) to cross the floor | e) to surprise and astound someone |

***2.Give the English equivalents to the following and use 5 of them in small situations:***

нижнее перекрытие; верхнее перекрытие; бетонная плита; висячая деревянная конструкция; железобетонная плита; несущая стена; хорошо вентилируемый; обработанный пропиткой, за один раз; расположенный рядом блок для бетонирования; в шахматном порядке; сплошной фундамент; несущая стена из ячеистого бетона; кирпич-сырец (пустотелый кирпич); гидроизоляционная прослойка; облицовочная стеновая панель (мауэрлат); балка пола; доска пола.

**Тема 2.51.История интерьера - Тема 2.52.Стили в интерьере - Тема 4.53.Связь архитектуры и интерьера**

**Read the text. Write about the main functions of architecture.**

**The art of architecture**

Architecture is the art and the technique of building, employed to fulfil the practical and expressive requirements of civilized people. Almost every settled society that possesses the techniques for building produces architecture. It is necessary in all but the simplest cultures; without it, man is confined to a primitive struggle with the elements; with it, he has not only a defence against the natural

environment but also the benefits ol a human environment, a prerequisite for the development of civilized institutions. The characteristics that *distinguish* a work of architecture from other man-made structures are (1) the suitability of the work to use by human beings in general and the adaptability of it to particular human activities; the stability and permanence of the work's construction; and (3) the communication of experience and ideas through its form. All these conditions must be met in architecture. The second is a constant, while the first and the third vary in relative importance according to the social function of buildings. If the function is chiefly utilitarian, as in a factory, communication is of less importance.

If the function is chiefly expressive, as in a monumental tomb, utility is a minor concern. In some buildings such as churches and city halls, utility and communication may be of equal importance.

**Тема 4.54.Цвет в интерьере - Тема 4.55.Дизайн стен Тема 4.56.Детали и оборудование интерьера**

***Match the terms with their definitions:***

|  |  |
| --- | --- |
| 1) abutment | a) the horizontal distance between supporting pillars, columns, or walls, being the maximum possible distance clear of obstacles |
| 2) back/  extrados | b) the vertical distance between the springing line of the arch and the curve of the intrados |
| 3) clear span | c) the uppermost part of a column or pillar supporting an arch |
| 4) impost | d) the central stone or brick at the top of the arch, which may be wedge-shaped; it holds the arch together |
| 5) intrados | e) the point where the ends of the arch rest on the wall and support the weight of the structure above them |
| 6) keystone | f) a wedge-shaped or tapered stone used to construct an arch |
| 7) rise | g) the undersurface or soffit of the arch |
| 8) voussoir | h) the outer curve or surface of an arch or vault |

***Translate into Russian without a dictionary:***

**INTERIOR WALL CONSTRUCTION**

|  |  |
| --- | --- |
| **Drywall sheets** are applied to studs, joists, or rafters with special drywall nails, drywall screws, or adhesive. Joints between panels are taped with a paper or fiberglass tape and are coated, along with nailheads, by several layers of smooth, plaster-like wallboard compound (“mud”). Most outer corners are reinforced with metal or square-edged or rounded corner bead. The sheets, which are relatively inexpensive, are 4 feet wide, 1/4 to 5/8 inch thick, and from 6 to 16 feet long. The standard size is 1/2 inch thick and 8 feet long. | 161-drywall |
| **Plaster** is a mixture of Portland cement, sand, and water that is applied in a thick, mud-like consistency to a base of wood or metal lath or perforated plasterboard. Plaster is applied in layers: first, a scratch coat is troweled onto the lath so that it oozes through and grips the backing when it hardens. After that dries, a second, or undercoat, is applied. Then, a finish or white coat is troweled on the undercoat for the final, smooth surface. | 161-scratch |
| **Wood paneling** has been used as a wall covering since walls have been walls, though it’s now used primarily as an accent for a study or family room where its warmth and character are desired. Wood paneling is made both in sheets and in individual, interlocking strips. They’re glued or invisibly nailed to existing walls or furring strips; furring is always needed when paneling is applied to masonry walls. | 161-wood |

**Тема 4.57.Генплан**

**Самостоятельная работа**

***Choose a word to put into each gap:***

*Stone, prefabricated structures, fortresses, columns, the bricks, the building industry, precast concrete, wood, flat, unskilled, thick, the site, plumbers, cement, civil, building material, synthetics, architecture, machinery.*

1. The first houses in many parts of the world were made of ... . 2. In some regions the most convenient ... was ... . 3. Although houses were built without ..., the remains of a few of them still exist. 4. Having dried ... in the sun Egyptians put up four walls, and above these they placed a ...roof. 5. The first lessons in the art of marking ... were given to the world in ancient Egypt. 6. In our country ... flourished for the first time in Kiev Russ. 7. The churches of the time were strong buildings with ... walls and small windows. 8. They often had to serve as . during enemy invasions. 9. A very advanced construction technique today is the use of ... . 10. Many

highly-educated ... engineers, skilled and ... workers are engaged in construction. 11. ... are among the new building materials. 12. Various elements and components are assembled on ... . 13. ... are transported by lorries and immediately hoisted into position. 14. Modern construction

can’t be imagined without building ... . 15. After the final inspection, electricians, ... and gas-men can begin their work. 16. ... is paid much attention in our country as it affects greatly the general level of living.

**Тема 5.1. Устройство на работу. Документы - Тема 5.1.Написание заявления - Тема 5.2.Собеседование**

-

1. Fill in the missing words in the letters below. Choose from the following. (See example):

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *appreciate* | *ask* | *concerning* | *delighted* | *enclose* |
| *faithfully* | *grateful* | *hearing* | *please* | *receiving* |
| *Regarding* | *regret* | *sincerely* | *sorry* | *writing* |

І.

Dear Ms Chan,

Thank you for your letter of 24 April, (1) *concerning* the exhibition in

Anytown in August.

We are (2). to hear that your company will be

taking part and that you will address the opening conference. (3). the conference, we should

(4). it if you could send us details of all the

delegates so that we can prepare security passes. We would also (5). you to let us have details of the equipment

you need for your presentation.

We look forward to (6). your reply.

Yours (7)..................................

**Устный опрос**

*How do you write an informal letter?*

**The format of an informal letter should include the following things:**

Address of the sender.

Date of **writing** a **letter**.

Address of receiver.

Salutation/Greeting.

Body of the **letter**.

Conclusion.

Signature of the sender.

*What informal letter means?*

An **informal letter** is a **letter** you would write to a friend, a family member or an acquaintance. The classic **informal letter** has five parts as follows: 1. Address Block. Includes your return address and the date of writing the **letter**.

*What are the 3 types of letter?*

Grammar Clinic: Summary of the **3 Types of Letters** {Formal, Informal and Semi-Formal **Letter**} You can find four basic elements in both formal and informal **letters**: a salutation, an introduction, body text and a conclusion with signature. The salutation is also known as the greeting.

*Why do we write informal letters?*

**Informal letters** are mainly used for personal communication. So they **do** not have to follow any specific pattern, format or conventions. They can be written as per the writer's wishes and the requirement of the situation. So the **letter** is written in a personal fashion in casual unassuming language.

***Контрольная работа№5***

**Variant 1**

**1. Answer the questions about the structure of the formal letter**

1. How many big parts does a formal letter consist of?

2. What are they?

3. What are the main tips of writing business letters?

**2. Select the item that is more formal and translate the text**

Dear Ms Denton,

1 (Thanks/ Thank you) for your letter of 24 May. As I am sure you will 2 (understand/appreciate), I am 3 (most upset/very sorry) to 4 (hear/learn) that you 5 (were unable to/could not) locate my suitcase.

As I 6 (said/pointed out) in my original letter, the suitcase contained 7 (a lot of/many) documents that I 8 (need/require) for my 9 (work/job).

I have 10 (been obliged/had) to 11 (contact/get in touch with) my publishers to 12 (get hold of/obtain) copies of documents that your airline 13 (lost/mislaid).

14 (Naturally/Of course), I will 15 (complete/fill in) the Claim Form, but I 16 (find it difficult/it is not easy) to 17 (estimate/guess) the value of the documents.

18 (About/Approximately) half of them are irreplaceable. I 19 (hope/ trust) that in the meantime you 20 (are still looking/continue to look) for my case.

21 (Should you find it/If you find it), please contact me 22 (straight away/immediately).

I 23 (look/am looking) forward to hearing from you.

Yours sincerely,

James Burke

Company Manager

**3. Translate into English**

1. Подождите, пожалуйста (не вешайте трубку).

2. Я посмотрю, на месте ли он.

3. Я узнаю, на месте ли он.

4. К сожалению, Джейсона сейчас нет.

5. Я могу вам помочь?

6. Представьтесь, пожалуйста.

7. Скажите, пожалуйста, кто звонит?

8. Линия занята.

9. Кому вы звоните?

10. Джейсон в офисе?

**4. Fill in the gaps with the following words:**

*automatic call dial dialing tone directory engaged exchange operator*

*receiver subscriber’s number trunk code Yellow Pages*

You need to make a telephone 1)\_\_\_\_\_\_\_\_ . Then make sure you have your

correspondent’s number close at hand. Telephone numbers consist of a 2) \_\_\_\_\_\_\_\_\_\_\_\_

and a 3) \_\_\_\_\_\_\_\_\_\_\_\_\_. If you don’t know your contact’s number, look it up in the

telephone 4) \_\_\_\_\_\_\_\_\_ of the 5) \_\_\_\_\_\_\_\_\_\_\_\_. The latter contains the telephone

numbers of businesses and traders in your area. The next thing you do is lift the 6)

\_\_\_\_\_\_\_\_\_\_\_\_\_ and 7) \_\_\_\_\_\_\_\_\_ or press the number. You will then hear a 8)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_. If the number is 9) \_\_\_\_\_\_\_\_\_\_\_\_\_ you will hear an engaged tone. Bad

luck, you will have to ring back later.

In a company, the first person who answers the phone will often be the 10)

\_\_\_\_\_\_\_\_\_\_\_\_. He - but still more often: she - will put you through to the person you

require. The operator operates the telephone 11) \_\_\_\_\_\_\_\_\_\_\_.

In an increasing number of businesses however manual exchanges are replaced by direct

lines or 12) \_\_\_\_\_\_\_\_\_\_\_\_\_ exchanges.

**Task 5** Write a short composition “Rules of Etiquette in Business”

**Variant 2**

**1. Answer the questions about the structure of the formal letter**

1. What to Include in a Curriculum Vitae

2. Which personal details / education and qualifications / work experience to include?

3. Which skills should be in your CV?

**2. Find the appropriate definition of the words**

1. an invoice; a) an exchange of goods and services between nations;

2. foreign trade; b) the price given for goods or a piece of work;

3. a statement; c) a letter where the customer tries to get better terms;

4. a receipt; d) a bill for goods sent or work done;

5. a quotation; e) an approximate calculation of the cost of something;

6. an estimate; f) a document that proves you have paid for some goods;

7. a counter - proposal; g) a list of amounts paid and still owed, sent every month.

**3. Translate into English**

1. С кем вы хотите поговорить?

2. Скажите, пожалуйста, имя человека, которому вы звоните.

3. К сожалению, телефон не отвечает.

4. Я вас соединяю.

5. Могу я принять сообщение (что-то передать)?

6. Вы не хотели бы оставить информацию?

7. К сожалению, вы не туда попали.

8. Соедините меня с номером 142 (внутренний номер)

9. Да, конечно / Конечно

10. Здравствуйте, это говорит Ирина Маркова.

**4. Translate into Russian**

1. The content of a business letter and its style depend on the nature of the letter.

2. Print traditional letters on letterhead using a heavier or textured stock. If letterhead is not available or the letter is personal, the proper title for the person or persons sending the letter should appear at the top left corner.

3. List the recipient of your correspondence and the address at the left margin. The name and address should be formal, including his titles and designations.

4. Under the date, include a line referencing the subject matter of the letter, using the form "RE: (reference)."

5. All business letters should close formally. Avoid frilly endings.

**5. Read this dialogue and choose the best answer:**

Leslie: 1) Hello?/Hi?/Yes?

Cameron: Hi, is this Leslie?

Leslie: Yes. 2) Who are you/And you/Who’s this?

Cameron: It’s Cameron here. Is Maria 3) inside/in/where?

Leslie: No, she just 4) came/stepped/gone out for a moment. Can I take a message?

Cameron: Yes, thanks. 5) Could you/Would you mind/Can you be ask her to meet me at

the Capitol 4 movie theatre at 7 pm tonight?

Leslie: Sure. Just let me write that down. Oh, Cameron. Could you 6) hold

off/holding/hold for a second? I have to take another call.

Cameron: No problem.

Leslie: Hi. Sorry about that. Now could you please 7) say again/repeat/review that

information? I didn’t have a pen handy.

Cameron: Sure. It’s the Capitol 4 theatre at 7 o’clock.

Leslie: Okay, I’ve got it. Is there anything else?

Cameron: No, that’s great.

Leslie: Okay. Uh-oh, there’s my other line again. I’d better 8) call/run/hang on.

Cameron: Okay, thanks again. Bye for now.

Leslie: 9) Bye bye/Bye too/See you again.

**ПРИЛОЖЕНИЕ № 1**

*Устный опрос по определениям и основным понятиям:*

1. Сущность и задачи архитектуры.
2. История развития архитектуры. Первые архитекторы.
3. Древнегреческая архитектура.
4. Римская архитектура.
5. Строительные элементы архитектуры.
6. Научно-технические стили русского и английского языков
7. Металлы
8. Виды кирпича
9. Бетон. Виды и свойства
10. Здания и требования к ним
11. Стены. Виды стен
12. Крыша. Ее функции

**ПРИЛОЖЕНИЕ № 2**

**Вопросы к дифференцированному зачету по дисциплине**

**ОГСЭ.03. Иностранный язык в профессиональной деятельности**

**для студентов специальности 07.02.01. Архитектура**

1.Сущность и задачи архитектуры.

2.Архитектура как вид искусства.

3.История архитектуры. Архитектурный стиль.

4.Древнегреческая архитектура.

5.Основные периоды греческой архитектуры.

6. Римская архитектура.

7.Этапы развития римской архитектуры.

8. Возрождение классического искусства.

9. Краткая история архитектурных стилей.

10. Стиль барокко и рококо.

11. Основы архитектурного проектирования.

12. Проектирование зданий и сооружений.

13. Архитектурные детали.

14. Строительные элементы архитектуры.

15. Элементы декорирования фасада.

16.Деловая корреспонденция.

17.Деловые письма. Основная характеристика.

18.Виды деловых писем.

19.Деловая электронная переписка.

20.Письмо-заявление о трудоустройстве.

21.Структура и стиль деловой корреспонденции.

22.Правила составления резюме.

23.Функции строительных материалов. Составить диалог о покупке строительных материалов

24.Натуральные строительные материалы

25.Моя профессия – строитель

26.Искусственные строительные материалы

27.Натуральные строительные материалы (практика перевода)

28.Прочность сопротивления

29. Использование дерева в строительстве

30.Свойства дерева. Работа по дереву.

22.Виды потолков

23.Классификация и дизайн стен

24.Окно Функции Установка

25.Пол – важный элемент здания

26.Конструктивное проектирование. Разработка и согласование плана