ВСЕРОССИЙСКАЯ
НАУЧНО-ПРАКТИЧЕСКАЯ КОНФЕРЕНЦИЯ
«АКТУАЛЬНЫЕ ВОПРОСЫ ПРОФЕССИОНАЛЬНОГО ОБУЧЕНИЯ ЛИЦ С МЕНТАЛЬНЫМИ НАРУШЕНИЯМИ»

АДАПТИРОВАННАЯ РАБОЧАЯ ТЕТРАДЬ

ПО УЧЕБНОЙ ДИСЦИПЛИНЕ «ИНОСТРАННЫЙ ЯЗЫК» (ДЛЯ ОБУЧАЮЩИХСЯ 3 КУРСА, ИМЕЮЩИХ НАРУШЕНИЯ СЛУХА, ЗРЕНИЯ, ОПОРНО-ДВИГАТЕЛЬНОГО АППАРАТА)

Специальность: 35.02.03 «Технология деревообработки»

Хабаровск 2019

Рабочая тетрадь по учебной дисциплине «Иностранный язык» предназначена для работы обучающихся III курса, имеющих нарушения слуха, зрения и опорно-двигательного аппарата специальности технического профиля 35.02.03 «Технология деревообработки». Рабочая тетрадь тесно связана с программой структурно и содержательно. Основное ее назначение – помочь обучающимся закрепить и активизировать языковой и речевой материал, автоматизировать лексико-грамматические навыки, развить умения в чтении и письменной речи.

Широкий спектр разнообразных заданий позволяет реализовать личностно-ориентированный подход в обучении английскому языку работать с обучающимися с разным уровнем подготовки и с разными интересами. Рабочая тетрадь разработана для изучения основ организации технологического и производственного процессов, технологического оборудования деревообрабатывающего производства, материалов, используемых в деревообработке на английском языке и состоит из 29 тем.

Составлена в соответствии с Федеральным государственным образовательным стандартом среднего профессионального образования по специальности 35.02.03 технология деревообработки, утвержденным приказом Министерства образования и науки РФ от 07.05.2014 г. № 452 и адаптированной рабочей программой учебной дисциплины «Иностранный язык».

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СОДЕРЖАНИЕ

Пояснительная записка

Адаптированная рабочая тетрадь по учебной дисциплине «Иностранный язык» предназначена для обучающихся, имеющих нарушения зрения, слуха и опорно-двигательного аппарата.

Адаптированная рабочая тетрадь составлена в соответствии с примерной программой общеобразовательной учебной дисциплины «Иностранный язык», рекомендованной Федеральным государственным автономным учреждением «Федеральный институт развития образования» 21. 06. 2015 г., и адаптированной программой учебной дисциплины «Иностранный язык» для обучающихся 3 курса специальности 35.02.03 «Технология деревообработки».

Рабочая тетрадь для лиц с нарушением зрения, слуха и опорно-двигательного аппарата разработана к двум разделам адаптированной программы и состоит из 29 тем, включает в себя информационный и контролирующий блоки. Информационный блок несет в себе информацию об учебном материале, в контролирующий блок входят задания для контроля полученных знаний и умений, задания для самостоятельной работы.

Цель данной адаптированной рабочей тетради – способствовать повышению эффективности обучения и уровня творческого развития обучаемых. Содержание тетради базируется на тематическом принципе, упражнения и задания в данной тетради подходят к конкретному тексту и представляют собой материал проверочного и обучающего характера.

Построение тетради делает работу обучающихся более осмысленной. Приступая к изучению курса, он имеет представление, какой объем работы ему предстоит выполнить, ясно представляет свои учебные задачи, имеет возможность планировать предстоящую работу, а при желании работать с опережением.

Рабочая тетрадь не содержит ответов, поэтому при самостоятельной работе обучающегося необходим систематический контроль со стороны преподавателя для проверки правильности выполнения заданий. Данное учебно-методическое пособие является инструментом текущей аттестации. Рабочая тетрадь имеет инструкцию для работы с тетрадью, правила ведения рабочей тетради, рекомендации по выполнению упражнений, критерии выставления оценок.

Для выполнения заданий по адаптированной рабочей тетради каждый обучающийся с учетом медицинских показаний обеспечивается необходимым оборудованием.

Для оформления рабочего места обучающегося, имеющего нарушения слуха используются технические средства обучения: акустическая система, развивающий центр с горизонтальным дисплеем, моноблок с сенсорным экраном, портативный тифлоплеер Smart Bee, ноутбук, машина сканирующая и читающая текст, мышь-сканер, интерактивная панель и документ-камера, стационарный увеличитель с монитором, радиокласс «Сонет-РСМ РМ5-1»(заушный индуктор и индукционная петля), слуховой аппаратный тренажер «Соло-01В» (М), магнитно-маркерная доска, проектор, активная акустическая система.

Для оформления рабочего места обучающегося, имеющего нарушения зрения, используются технические средства обучения: видеоувеличитель ручной, акустическая система, развивающий центр с горизонтальным дисплеем, моноблок с сенсорным экраном, портативный тифлоплеер Smart Bee, ноутбук, машина сканирующая и читающая текст, мышь-сканер, интерактивная панель и документ-камера, стационарный увеличитель с монитором, выносная компьютерная кнопка, принтер для печати шрифтом Брайля, магнитно-маркерная доска, проектор, активная акустическая система, дисплей брайлевский, программное обеспечение «Доступная среда для незрячих и слабовидящих».

Для оформления рабочего места обучающегося, имеющего нарушения опорно-двигательного аппарата, используются технические средства обучения: акустическая

система, развивающий центр с горизонтальным дисплеем, моноблок с сенсорным экраном, ноутбук, машина сканирующая и читающая текст, мышь-сканер, интерактивная панель и документ-камера, магнитно-маркерная доска, проектор, активная акустическая система.

Обучение по данной рабочей тетради реализуется в течение одного учебного года в количестве 58 часов.

Значимость адаптированной рабочей тетради заключается в углублении знаний профессиональной лексики, овладении устной и письменной речью на базовом уровне, формировании умений применять полученные знания на практике, в обеспечении сознательного усвоения материала, развития навыков активных речевых действий, логического мышления.

Инструкция для работы с тетрадью.

Уважаемый обучающиеся!

Прежде, чем Вы начнете самостоятельную работу, прочтите эти рекомендации**.**

Самостоятельная подготовка позволит Вам:

- рационально использовать личное время, т.е. индивидуализировать объем самоподготовки в зависимости от опыта, навыков и уровня знаний;

- восстановить, возможно, имеющиеся пробелы в знаниях; во время теоретической части обучения сконцентрировать внимание на практическом компоненте программы.

Структура рабочей тетради имеет два компонента: учебно-информационные материалы и систему вопросов и заданий. Система вопросов и заданий содержит перечень заданий, позволяющих оценить уровень самоподготовки и использовать материалы самоподготовки на практических занятиях.

В процессе выполнения заданий Вы:

- овладеете основами коммуникативной компетенции в учебно-производственной сфере;

- научитесь строить речевое и неречевое поведение адекватно этой специфике, выделять общее и различное в специализированной лексике родной страны и англоговорящих стран;

- совершенствуете умения использовать грамматические структуры и языковые средства в соответствии с нормами данного языка, свободное использование приобретенного словарного запаса.

- сформируете умение использовать английский язык как средство для получения информации из англоязычных источников в образовательных и самообразовательных целях;

- пополните запах профессиональной лексики.

Выполнив все задания по данному разделу, Вы будете знать:

- терминологическую специфику англоговорящих стран;

- лексический и грамматический минимум, необходимый для чтения и перевода иностранных текстов профессиональной направленности;

- как логично и точно излагать свою точку зрения, используя адекватные языковые средства.

Рабочая тетрадь по дисциплине «Иностранный язык» предусматривает использование бумажного и электронного вариантов.

Правила ведения рабочей тетради.

В рабочей тетради представлены вопросы, различные по форме задания, тестовые задания для самостоятельной проработки.

Предусматривается письменное выполнение упражнений непосредственно в тетради, что позволит экономить время и упрощает работу.

Ваши ответы должны быть написаны разборчиво и ясно, так как они будут проверяться преподавателем.

Если при работе с каким-либо вопросом Вам будет не хватать места при ответе, то Вы можете вложить или вклеить чистый лист бумаги с указанием номера задания. Задания разнообразны. Для их правильного выполнения ниже приводится ряд рекомендаций.

Рекомендации по выполнению упражнений:

1. Работа с лексическим материалом: найдите в словаре перевод и транскрипцию незнакомых слов, выпишите в отдельную тетрадь - глоссарий. Прочитайте и запомните данные слова и выражения.

2. Работа с текстом: прочитайте и переведите текст.

3. Работа с диалогом: дополните диалог, переводя реплики с русского на английский язык.

4. Работа с грамматическими упражнениями: прочитайте грамматический материал к темам и выполните упражнения.

5. Составьте аннотацию к тексту: аннотация-это краткое изложение содержания в виде перечня основных вопросов и краткой характеристики.

Критерии выставления оценок для всех практических работ:

выполнение 65% от всей работы - оценка «удовлетворительно»;

65%-80%- оценка «хорошо»;

более 80% – «отлично».

За выполнение задания помеченное звездочкой*, обучающийся получает дополнительную оценку.

Оценка за выполнение практических работ должна быть выставлена до начала следующей работы.

Форма отчета по работе в рабочей тетради

№	Тема практической работы	Дата сдачи	Дата контроля	Оценка	Роспись
1.	Технология деревообработки. Сложное дополнение				
2.	Первичная обработки древесины. Повторение грамматического материала предложения со сложным дополнением типа I want you to come here				
3.	Вторичная обработка древесины. Повторение грамматического материала «Союзы»				
4.	Специальное производство. Повторение грамматического материала. Пассивный залог. Особенности перевода				
5.	Основы организации технологического и производственного процессов				
6.	Продукция лесопильного производства				
7.	Хвойные породы древесины				
8.	Строение дерева хвойных пород				
9.	Лиственные породы древесины				
10.	Строение дерева лиственных пород				
11.	Пороки древесины				
12.	Контрольная работа № 1				
13.	Основные свойства древесины				
14.	Физические свойства древесины				
15.	Материалы, используемые в деревообработке				
16.	Материалы, используемые в деревообработке				
17.	Виды материалов, получаемые из древесины				
18.	Технологическое оборудование деревообрабатывающего производства				
19.	Оборудование для лесопильного производства				

20.	Дереворежущие инструменты				
21.	Оборудование для производства мебели				
22.	Конструирование изделий из древесины				
23.	Конструкция изделий из древесины				
24.	Корпусная мебель				
25.	Столярные изделия				
26.	Мягкая мебель				
27.	Контрольная работа № 2				
28.	Деревообрабатывающие предприятия				
29.	Деревообрабатывающие предприятия				

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 1
ТЕМА: «Технология деревообработки. Сложное дополнение»
«Technology of woodworking. Complex object»

Task 1. Read and translate the text.

WOODWORKING

Woodworking is the forming and shaping of wood to make useful and decorative objects. It is one of the oldest crafts and ranks as a popular hobby and an important industry. A skilled woodworker with a well-equipped home workshop can build items as simple as a birdhouse or as complicated as decorative furniture. Tools for a workshop can be purchased at hardware and department stores. Lumber retail stores and hobby shops sell a wide variety of wood.

The construction industry employs carpenters who construct the wooden framework of buildings. Other kinds of woodworkers include finish carpenters and cabinetmakers. Finish carpenters do the inside trim work around windows, cabinets, and other features that must fit exactly. Cabinetmakers design, shape, and assemble furniture, built-in cabinets, and stairways.

The history of woodworking goes back to about 8,000 B.C., when people first used an ax as a woodworking tool. In the Middle Ages, woodworkers and other craft workers formed organizations called guilds. The guilds were similar in some ways to today's labor unions.

Task 2. Find English equivalents in the text:

деревообработка – _____
декоративные предметы – _____
важная отрасль – _____
строительный магазин – _____
магазин для розничной продажи пиломатериалов – _____
магазин товаров для хобби – _____
деревянный каркас – _____
плотник-отделочник – _____
краснодеревщик – _____
внутренняя отделочная работа – _____
встроенный шкаф – _____
ремесленник – _____
сегодняшние профсоюзы – _____
хорошо оборудованная домашняя мастерская – _____

Task 3. Give Russian equivalents to the following:

skilled woodworker – _____
decorative furniture – _____
department store – _____
wide variety of wood – _____
must fit exactly – _____
assemble furniture – _____
stairway – _____
woodworking tool – _____
called guilds – _____
be similar in some ways – _____
other kinds – _____
shaping of wood – _____
ranks as a popular hobby – _____
framework of a building – _____

Task 4. Translate the text and say whether these statements are true or false:

1. Woodworking is a comparatively new industry.
2. Any woodworker can build simple and complicated items as well.
3. Wood for a workshop can be purchased at a department store.
4. You can nd a wide variety of wood at lumber retail stores.
5. Carpenters are often employed in the construction industry.
6. Cabinetmakers do not deal with woodworking.
7. Finish carpenters usually do the work on the roof of the building.
8. An ax as a woodworking tool was rst used long before Christ.
9. Today carpenters form organizations called guilds.

Task 5. Choose and circle the right variant:

1. Woodworking is the forming and shaping of wood …

а) Деревообработка – это формирование и моделирование дерева …

б) Деревообработка – это придание формы лесоматериалам …

в) Деревообработка – это придание формы и конфигурации дереву …

2. Woodworking is one of the oldest crafts and ranks as a popular hobby …

а) Деревообработка – это одно из древнейших ремесел и считается популярным хобби … б) Деревообработка – это одно из древнейших ремесел, которое считается таким же популярным, как и хобби …

в) Деревообработка – это одна из старейших профессий, которая стоит в одном ряду с популярным хобби …

3. Other kinds of woodworkers include finish carpenters and cabinetmakers.

а) Другие типы деревообработчиков включают окончательных плотников и краснодеревщиков.

б) Другие типы деревообработчиков включают плотников - отделочников и оформителей кабинетов.

в) Другие типы деревообработчиков включают столяров - отделочников и краснодеревщиков.

4. The history of woodworking goes back to about 8000 B.C. …

а) История деревообработки берет свое начало примерно с 8000 года до нашей эры …

б) История деревообработки началась 8000 лет назад …

в) История деревообработки возвращает нас к 8000 году до рождества Христова …

Task 6. Continue the sentence:

1. A skilled woodworker with a well-equipped home workshop can …

a) … design and construct the whole project.

b) … make pavements and overpasses.

c) … make useful and decorative objects.

2. Wood for woodworking can be purchased at …

a) … hardware stores.

b) … department stores.

c) … lumber retail stores.

3. Carpenters are employed by the construction industry to …

a) … mix concrete.

b) … design the modern roofs of buildings.

c) … construct the wooden framework of buildings.

4. Built-in cabinets and stairways are designed …

a) … by a design team. b) … by cabinetmakers.

c) … by any woodworker.

5. Finish carpenters deal with …

a) … construction of a birdhouse.
b) … construction of the wooden framework of buildings.
c) … the inside trim work.

Task 7. a) Complete the table:

Noun	Verb	Adjective
—	decorate	—
—	—	ranked
equipment	—	—
—	purchase	—
—	—	—
employment	—	varied
—	include	
—	—	trimmed
assembly	—	—
–	organize	—

b) Choose the word from the table to complete the sentence:

1. The wooden framework of buildings is constructed by carpenters who are ……. by the construction industry.
2. There are other kinds of woodworkers which ……..…. finish carpenters and cabinetmakers.
3. Nowadays woodworking …… as a popular hobby and an important industry.
4. Cabinet makers design, shape and …… furniture, built-in cabinets and stairways.
5. Woodworkers form and shape wood to make useful and …….. objects.
6. The inside …… work is usually done by finish carpenters.
7. You can …….. tools for a workshop at a hardware store.
8. In ancient times woodworkers formed …….. called guilds.
9. A wide …… of wood is sold in lumber retail stores.
10. Having good …… at a home workshop a woodworker can build simple and complicated items as well.

Task 8. Scan the text and answer the questions:

1. What is woodworking?

_____

2. When does the history of woodworking begin?

_____

3. Where can a skilled woodworker build simple and complicated items?

_____

4. Where can you buy tools for a workshop?

_____

5. What do lumber retail stores sell?

_____

6. Who constructs the wooden framework of buildings?

_____

7. What other professions do woodworkers include?

8. What do cabinetmakers deal with?

9. Who does the inside trim work around wooden features that must fit exactly?

10. When did people use an ax as a woodworking tool?

11. When did woodworkers start forming guilds?

12. Were the guilds similar to any today's organizations?

Grammar revision:
1. Explain the grammar phenomena underlined in the text.

2. Put questions to the following sentences.
1. The students were listening to the professor with great attention. (Who)

2. The discovery of radio waves by A. Pavlov in 1895 had a great value for mankind. (General)

3. Students of railway transport Institutes study various aspects of railway science. (What)

4. Einstein explained the photoelectric effect by means of Planck's quantum theory. (How)

5. The study of light was Newton's favourite study. (What)

3. Open the brackets.
1. Electricity (to do) a lot of work for us.

2. Lomonosov's works (to lay) the foundations of physics, chemistry, astronomy, geology and geography in Russia.

3. The prominent scientist Academician Joffe (to make) a great contribution to the study of semiconductor physics.

4. Some power stations already (to use) atomic energy to generate electricity for peaceful aims.

5. We (to know) that gravity (to attract) all matter toward the centre of the Earth.

Вывод по теме:

Рефлексия:
У меня получилось
Было трудно
Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 2
ТЕМА: «Первичная обработка древесины.
Повторение грамматического материала предложения со сложным дополнением типа I want you to come here»
«Conversion operation. Complex object»

Task 1. Read and translate the text.

FUNDAMENTALS OF WOOD CUTTING

By mechanical processing of wood is meant such processing whereby the shape and the volume of the wood are changed without changing the substance itself Such 38 processing greatly differs from chemical processing in which the substance of the wood is changed. The great majority of wood materials is processed with distribution of the bonds between the separate fibres. This processing consists mainly of cutting (sawing, planing, milling). A much smaller part is played by processing without destruction of the bonds between the fibres (pressing, bending) wherein the plastic properties of wood are used, namely its ability to retain deformation after removal of the external forces that have caused it. Woods are processed into primary products such as lumber, veneer and plywood. These primary products serve as the basis for manufacturing a great variety of finished articles such as structural members, furniture, and the wooden parts of railway cars, ships and automobiles.

Task 2. Rewrite the words in your vocabularies and learn them.

1. processing - переработка
2. to mean (meant, meant) - значить, означать
3. shape - форма
4. volume - объём
5. to differ from — отличаться от
6. bonds - связи, соединения
7. sawing - распиловка
8. planing - строгание
9. milling - измельчение
10. pressing - сжимание
11. bending - сгибание
12. lumber - пиломатериалы
13. veneer - шпон
14. plywood - клеёная фанера
15. to retain - удерживать, сохранять

Task 3. Answer the questions:

1. What is meant by mechanical processing of wood?

_____

2. Does mechanical processing differ from chemical processing?

_____

3. What are the primary products of wood?

_____

4. What articles are obtained by mechanical processing?

_____

Task 4. Choose the proper word. Read and translate the sentence.

1. Wood has (processing, ability, variety) to retain deformation after removal of the external forces that have caused it.

_____

2. We can (manufacture, obtain, change) the shape and the volume of the wood.

_____

3. Lumber, veneer and plywood are (primary products, chemical processing, separate fibres).

_____

Task 5. Read grammar rules on page 85-87 and make exercises.

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 3
ТЕМА: «Вторичная обработка древесины.
Повторение грамматического материала «Союзы»»
«Recycling. Conjunctions»

Task 1. Read the text:

SAWING

The main kinds of saws are frame, band and circular ones. Frame saws are long thin steel blades having teeth cut on one edge. They are designed for ripping logs and cants into boards and other lumber in special machines known as gang saws or frame saws in which the blades are given reciprocating motion. Circular saws are thin steel toothed disks. They have continuous rotary motion at a constant velocity.

These saws are employed both for ripping and cross-cutting all kinds of forest products. Owing to their high cutting speed and high output, circular saws are the most numerous branch of the saw family. A band saw is made in the form of a thin endless steel band with teeth cut on one side. The saw is mounted on two pulleys. Upon rotation of the pulleys the band saw is given continuous uniform motion, which is always a cutting motion. This type of saws is used for ripping logs and cants into boards, as well as for dividing thick boards into thinner ones.

Task 2. Rewrite the words in your vocabularies and learn them.

1. frame saw - рамная пила
2. band saw - ленточная пила
3. circular saw - круглая (циркулярная) пила
4. cant - брус
5. reciprocating motion - возвратно-поступательное движение
6. steel toothed disk - диск со стальными зубьями
7. rotary motion - вращательное движение
8. velocity - скорость
9. pulley - шкив, блок

Task 3. Answer the questions:

1. What are the main kinds of saws?

_____

_____

2. What are the frame saws designed for?

3. Why are circular saws so widely used?

4. What are the peculiar features of a band saw?

Task 4. Choose the proper word and underline it. Read and translate the sentence.

1. Frame saws are long thin (plastic, steel, endless) blades.

2. In frame saws the blades are given reciprocating (disk, pulley, motion).

3. Circular (saws, frames, blades) are thin steel toothed disks.

4. (Frame saws, circular saws, band saws) are the most numerous branch of the saw family.

Task 5. Read grammar rules on page 87-95 and make exercises.

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 4
ТЕМА: « Специальное производство.
Повторение грамматического материала. Пассивный залог.
Особенности перевода»
« Special manufacturing. Passive voice»

Task 1. Read and translate the text:

SANDING AND FINISHING.

Sanding removes tool marks and makes wood surfaces smooth for finishing. Sanding should not begin until the wood has been cut to its final size. Most abrasive paper manufactured for use by hand has rough particles of the minerals flint or garnet. Aluminum oxide is a common sanding material used in such machines as a portable belt sander or a vibrating sander. Portable belt sanders work better than vibrating sanders on large wood surfaces.

Woodworkers use a variety of finishes to protect wood and to bring out the beauty of the grain. A stain is a dye that colors wood without hiding the pattern and feel of the grain. Paint covers the grain of the wood and provides a color of its own. Varnish, shellac, and lacquer add a hard, glossy finish while exposing the beauty of the wood. Wax protects varnish and has a smooth, shiny finish when polished. Enamel is a type of glossy paint.

Task 2. Find English equivalents in the text:

следы от инструмента – _____
поверхность дерева – _____
наждачная бумага – _____
грубые частицы – _____
шлифовальный материал – _____
ленточно-шлифовальная ручная машина – _____
вибрационный шлифовальный станок – _____
целый ряд покрытий – _____
показать красоту – _____
не скрывая структуру – _____
строение (структура) дерева – _____
глянцевая поверхность – _____
глянцевая краска – _____
красота структуры дерева – _____
такие минералы как кремень или гранит – _____

Task 3. Give Russian equivalents to the following:

smooth for finishing – _____
final size – _____
manufactured for use by hand – _____
aluminum oxide – _____
beauty of the wood – _____
a stain – _____
a dye – _____
that colors wood – _____
provides a color of its own – _____
a varnish – _____
a shellac – _____
shiny finish – _____
an enamel – _____

Task 4. Translate the text and say whether these statements are true or false:

1. Finishing makes wood surfaces smooth for sanding. (T/F)
2. Before sanding the wood should be cut to its final size. (T/F)
3. Most abrasive paper manufactured for use by hand is very soft. (T/F)
4. Vibrating sanders are the best machines used for sanding large wood surfaces. (T/F)
5. A variety of lacquers is used to protect wood. (T/F)
6. A stain is used for painting wood and hiding the pattern of the grain. (T/F)
7. Finishes cover wood and provide a color of its own. (T/F)
8. Varnish, shellac, and lacquer are used for exposing the beauty of the wood. (T/F)
9. Wax is used for providing a smooth and shiny finish. (T/F)

Task 5. Choose the right variant:

1. Most abrasive paper manufactured for use by hand has rough particles …

а) Большую часть наждачной бумаги производили для использования вручную, которая имела грубые частицы …

б) Большинство наждачки выпускалось вручную и имело грубые частицы..

в) Большая часть наждачной бумаги, произведенной для использования вручную, имеет грубые частицы …

2. Aluminum oxide is a common sanding material used in such machines …

а) Оксид алюминия – это общий материал для шлифования и использовался в таких машинах …

б) Оксид алюминия – это распространенный материал для шлифовки, используемый в таких машинах …

в) Оксид алюминия является шлифовальным материалом общим для таких машин …

3. A stain is a dye that colors wood without hiding the pattern …

а) Морилка – это красящее вещество, которое окрашивает дерево, не скрывая его структуру …

б) Морилка – это красящее вещество под цвет дерева, которая не скрывает его структуру …

в) Морилка – это красящее вещество, используемое для того, чтобы цвета дерева не скрывали структуру …

4. Varnish, shellac, and lacquer add a hard, glossy finish while exposing the beauty of the wood.

а) Глазурь, шеллак и лак добавляют твердости глянцевой поверхности, показывая красоту дерева.

б) Глазурь, шеллак и лак делают поверхность твердой и глянцевой, демонстрируя красоту дерева.

в) Глазурь, шеллак и лак придают твердой поверхности глянец, когда дерево выставляется напоказ.

Task 6. Continue the sentence:

1. Sanding makes wood surfaces smooth for finishing …

a) … while cutting it to its nal sizes.
b) … while exposing the beauty of the wood.
c) … while removing tool marks.

2. Abrasive paper is manufactured for …

a) … use by hand only.
b) … use by hand and machines as well.
c) … use by machines only.

3. A variety of finishes are used …

a) … to remove tool marks.

b) … to color wood and to hide the pattern of the grain.
c) … to guard wood and provide the beauty of a color of its own.
4. Woodworkers use … to color wood and to add a hard, glossy finish to its surface
a) … a stain …
b) … a varnish …
c) … wax …

Task 7. a) Complete the table:

Noun	Verb	Adjective
—	finish	—
—	—	protected
manufacture	—	—
—	vary	—
—	expose	—
	—	colorful
polish	—	
—	—	trimmed
provision	—	—

b) Choose the word from the table to complete the sentence:
1. They … abrasive paper for use by hand and by machines as well.
2. The wood should be cut to its … size before sanding.
3. A stain is used to … wood and to bring out the pattern of the grain.
4. … finishes are used to guard wood and to show the beauty of the grain.
5. The grain of the wood is covered with paint which … the color of its own.
6. Woodworkers usually use varnish to protect wood from … to weather.
7. Wax is usually used to protect varnish and to … wood surface.
8. The main aim of all the nishes used by wood workers is to … wood and to provide the color of its own.

Task 8. Scan the text and answer the questions:
1. How do woodworkers make wood surfaces smooth for finishing?

_____

2. When should woodworkers begin sanding?

_____

3. For what use is most abrasive paper manufactured?

_____

4. What common sanding material is used in sanding machines?

_____

5. What sanding machines are considered to be the best ones?

_____

6. What do woodworkers use to protect wood?

_____

7. Does a stain hide the pattern and feel of the grain?

_____

8. What are varnish, shellac, and lacquer used for?

_____

9. How do woodworkers make the surface of the wood smooth and shiny?

_____

Grammar revision:
1. Explain the grammar phenomena underlined in the text.

2. Put questions to the following sentences.

1. Man widely uses aluminium. (general)

2. Iron melts more easily than butter. (What)

3. Our laboratory was provided with all the necessary instruments last year. (When)

4. Everyone can solve this problem. (Who)

5. They had to consult the expert. (Whom)

3. Open the brackets.

1. Different kinds of batteries (to use) in radio engineering.

2. Within several years nuclear power stations (to generate) a great amount of electric power.

3. They (to finish) testing the device last week.

4. There (to be) a large physics laboratory at our institute.

5. He (to reject) our proposal.

Task 9. Write out from the text new technical terms meaning types of woodworkers and translate them. (Fill into the dictionary)

Task 10. Read grammar rules on page 96 -97 and make exercises.

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 5
ТЕМА: «Основы организации технологического и производственного процессов»
«Bases of the organization of process technology»

Task 1. Read and translate the text:

WOODWORKING

Drilling enables a woodworker to connect sections of wood with screws, metal plates, and hinges. Drilling may also be required when constructing some joints. Braces and hand drills have bits to make holes of different sizes for various purposes. Portable electric drills and drill presses also use bits to drill holes. They have attachments for sanding and other purposes.

Fastening. Sections of wood are fastened together with metal fasteners, such as screws and nails, and with adhesives. Tools for fastening include screwdrivers and hammers. Screwdrivers insert screws that connect sections of wood and hold hinges and metal plates. Hammers are used to drive in nails and a variety of other types of metal fasteners.

Gluing is one of the oldest methods of fastening sections of wood and a variety of adhesives are used in woodworking. Polyvinyl resin emulsion glue, or white glue, can be applied directly from the bottle. It should not be used if it will come in contact with water or high temperatures.

Task 2. Find English equivalents in the text:

детали из дерева – _____
давать возможность плотнику – _____
ручной бурав – _____
коловорот – _____
для различных целей – _____
сверлильный станок – _____
насадка для шлифовки – _____
закрепление – _____
металлическое крепежное средство – _____
склеивающее вещество – _____
вкручивать шурупы – _____
вбивать гвозди – _____
поливиниловый эмульсионный клей – _____
прямо из бутылки – _____
его не следует использовать – _____
делать отверстия – _____

Task 3. Give Russian equivalents to the following:

drilling – _____
to connect sections – _____
a screw – _____
a metal plate – _____
a hinge – _____
some joints – _____
a portable electric drill – _____
a hand drill bit – _____
other purposes – _____
a nail – _____
tools for fastening – _____
a screwdriver – _____

a hammer – _____
gluing – _____
white glue – _____
high temperature – _____

Task 4. Translate the text and say whether these statements are true or false:

1. A woodworker can connect sections of wood with the help of a hand drill only. (T/F)
2. Woodworkers use nails to make holes of different sizes for various purposes. (T/F)
3. There are bits of different size for portable electric drills and drill presses. (T/F)
4. Braces and hand drills have attachments for sanding and other purposes. (T/F)
5. Various adhesives are used for fastening sections of wood together. (T/F)
6. Woodworkers use hammers to insert screws that connect sections of wood. (T/F)
7. One of the oldest methods of fastening sections of wood is drilling. (T/F)
8. Screwdrivers are used for drilling. (T/F)
9. White glue should be used after it will come in contact with water. (T/F)

Task 5. Choose and circle the right variant:

1. Drilling may also be required when constructing some joints.

а) Сверление возможно также необходимо, как и соединение стыков.

б) Сверление может также понадобиться при соединении некоторых стыков.

в) Сверление может также требовать соединения стыков.

2. They have attachments for sanding and other purposes.

а) У них есть дополнительные присоединения для посыпания песком и других целей.

б) Они приспособлены для шлифовки и других целей.

в) У них есть насадки для шлифовки и других целей.

3. Sections of wood are fastened together with metal fasteners …

а) Детали из дерева крепятся металлическими крепежными средствами…

б) Деревянные секции прикрепляют к металлическим крепежам …

в) Секции из дерева крепятся вместе с металлическими крепежами …

4. Gluing is one of the oldest methods of fastening sections of wood and a variety of adhesives are used in woodworking.

а) Склеивание один из древнейших методов скрепления деталей из дерева и различных клеящих материалов, используемых в деревообработке.

б) Склеивание один из древнейших методов при креплении секций из дерева к различным клеящим материалам и используется в деревообработке.

в) Склеивание один из древнейших методов соединения деталей из дерева и различные клеящие материалы используются в деревообработке.

Task 6. Continue the sentence and circle the right variant:

1. Woodworkers use screws, metal plates and hinges …

a) … to make holes of different sizes.

b) … to connect sections of wood.

c) … to drive them in sections of wood.

2. Portable electric drills have … for sanding and other purposes.

a) … bits…

b) …braces…

c) …attachments…

3. Woodworkers use … to drive in different types of metal fasteners.

a) …screwdrivers…

b) …hammers…

c) …braces…

4. Woodworkers use screwdrivers …
a) … to drive in nails and a variety of other types of metal hinges.
b) … to make holes of different sizes for various purposes.
c) … to insert screws that connect sections of wood.

Task 7.

a) Complete the table:

Noun	Verb	Adjective
connection		
	vary	
		constructed
		required
	apply	
fastening		
	attach	
		contacted

b) Choose the word from the table to complete the sentence:

1. Woodworkers use screwdrivers to …… sections of wood.
2. Screws, nails and adhesives are used for …….. sections of wood together.
3. Woodworkers use braces and hand drills to make holes for ……. purposes.
4. They usually ……....……..white glue directly from the bottle.
5. Drilling is also used to …… some joints.
6. Connection of sections of wood may also ……..….. drilling.
7. Portable electric drills have …… for sanding and other purposes.
8. They usually do not use white glue after it comes in …….. with water.

Task 8. Scan the text and answer the questions:

1. What do woodworkers use drilling for?

_____

2. How do they usually connect sections of wood?

_____

3. What do woodworkers use for making holes of different sizes?

_____

4. What do portable electric drills have for sanding?

_____

5. What are metal fasteners used for?

_____

6. What tools for fastening do woodworkers usually use?

_____

7. How do woodworkers use hammers?

_____

8. What is used for glueing sections of wood?

_____

9. How can white glue be applied?

_____

10. When shouldn't white glue be used?

Grammar revision:

1. Explain the grammar phenomena underlined in the text.

_____

_____

2. Put questions to the following sentences.

1. Carbon improves the physical qualities of the metal. (general)

2. He will work in the eld of Chemistry. (Where)

3. Our scientist took part in the atomic energy conference. (Who)

4. The students were listening to the professor with great attention. (How)

5. Some physicists made some interesting reports at the last International symposium. (What)

3. Open the brackets.

1. Electricity (to move) in the world forever.
2. The electricity (to flow) through the wire in the lightbulb and back to the battery.
3. In 1638, Galileo (to state) some of the fundamental concepts of mechanics, and in 1687, Isaac Newton (to publish) his Principia.
4. The scientists of the Pulkovo observatory (to make) a valu able contribution to the study of the cosmos.
5. You (to need) any additional information on this problem?

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 6
ТЕМА: «Продукция лесопильного производства»
«Sawn wood»

Task 1. Read and retell the text:

SWEDISH SAWMILLS

There are many sawmills in Sweden producing sawn wood products. Please find out below what their specialities are. The Swedish sawmills that export sawn wood products to India are Holmen, Martinsons, Moelven, Norra Timber, NWP, SCA, Setra Group, Siljan Timber and Södra Wood.

HOLMEN

Holmen Timber has been producing and supplying timber since 1873. Today it has three ultramodern sawmills in Linghem, Iggesund and Braviken. It offers an even and high quality within our two main segments Living with Wood and Building with Wood. The joinery and furniture industry, window and flooring manufacturers and the building products trade are our principal customers.

Its products are focused on meeting the demands of the woodworking industry for visible wood in the residential setting as well as the construction industry mainly for single and multi family housing.

Task 2. Rewrite these words into your vocabularies and learn them.

ПРОДУКЦИЯ ЛЕСОПИЛЬНОГО ПРОИЗВОДСТВА

Термин
1. Лесопильное производство - Manufacture of sawn timber
2. Пилопродукции - Sawn wood
3. Пилопродукции хвойных пород - Sawn soft wood
4. Пилопродукции лиственных пород- Sawn hard wood
5. Пиломатериалы - Sawn timber
6. Пиломатериал радиальной распиловки -Radial sawn timber
7. Пиломатериал тангентальной распиловки - Flat-grain sawn timber
8. Конструкционные пиломатериалы - Structural sawn timber
9. Пиломатериалы машинной сортировки - Machine graded sawn timber

10. Пиломатериалы визуальной сортировки - Visually graded sawn timber
11. Обрезной пиломатериал (заготовка) - Edged timber
12. Односторонне-обрезной пиломатериал (заготовка) - One-side edged timber
14. Строганый пиломатериал (заготовка) - Planed sawn timber
16. Брус - Cant
17. Двухкантный брус - Two-edge cant
18. Трехкантный брус - Three-edge cant
19. Четырехкантный брус - Square
20. Брусок - Bar
21. Доска -Board
22. Сердцевинная доска (брус) - Heart board
23. Центральная доска (брус) - Centre board
24. Боковая доска - Side board
25. Заготовка из древесины - Wood blank
26. Шпала - Sleeper
27. Обрезная шпала - Full squared sleeper
28. Необрезная шпала - Two-side sleeper
29. Обапол Mining slab
30. Горбыльный обапол Mining slab
31. Дощатый обапол Board mining slab
32. Горбыль Slab
33. Дощатый горбыль Board slab
34. Пласть пиломатериала Sawn timber face
35. Внутренняя пласть пиломатериала Ндп. *Оборотная пласть пиломатериала* Sawn timber internal face
36. Наружная пласть пиломатериала Ндп. *Лицевая пласть пиломатериала* Sawn timber external face

37. Лучшая пласть пиломатериала Better face of sawn timber
38. Худшая пласть пиломатериала - Worse face of sawn timber
39. Кромка пиломатериала - Sawn timber edge
40. Торец пиломатериала Sawn timber end
41. Ребро пиломатериала Sawn timber arris
42. Толщина пиломатериала Ндп. *Высота бруса* Sawn timber thickness
43. Ширина пиломатериала - Sawn timber width
44. Длина пиломатериала - Sawn timber length
45. Номинальный размер пиломатериала - Sawn timber nominal size
46. Фактический размер пиломатериала - Sawn timber actual size

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 7

ТЕМА: «Хвойные породы древесины»

«Coniferous species»

Task 1. Read the text:

THE FOREST WEALTH OF THE FAR EAST AND ITS EXPLOITATION

The forests of the Far Eastern Territory are one of its most important natural resources and play a great part in the growth and development of the productive forces of the Far East.

Moreover, the geographical position of the Far East which borders on the thinly wooded and unwooded countries of the Pacific Ocean makes it possible to export valuable timbers. One can say that the forests of the Far East are, to some extent, unique in species. They comprise about 16 kinds of coniferous trees and up to 150 kinds of deciduous ones. One can see over 20 different species on the area of one hectare, including cedar, spruce, larch, ash, walnut, elm, birch, etc ... Some of the species that at the present time are of industrial importance are described below.

The Korean Pine. The Korean pine grows on the southern coast of the Japanese Sea, in the basin of the lower course of the Amur. It reaches the age of 400 years, a height of 40 metres and a thickness of over 1 metre. The wood is distinguished for its high qualities of technical usefulness since it is very adaptable for sawing, for plywood manufacture, for tar extraction and also for cabinet-making. It does not grow in other parts of the

Spruce. Of this there are 4 varieties; the Ayah spruce and the Siberian spruce are more widely distributed than other ones. It is spruce that is one of the most productive species. It forms fine plantations of building and sawmill timber. It is adaptable for building and an excellent material for paper and hydrolysis manufacture.

American Whitewood. This is an extremely useful substitute for ordinarудще, and has come much into vogue within the last few years. It is somewhat harder than pine, is of a very uniformtexture, and of a lightish yellow colour, sometimes nearly white. It is often obtainable in great widths, is remarkably clean, and free from knots, as well as reliable and sound. Apart from its appearance, it has every attribute that can render a timber valuable as afumiture wood. It is generally sold at very low prices, being often obtainable for lower figures than prime pine. It ebonises well, and when suitably stained bears a very close resemblance to Americanwalnut. Owing to its plainness, it does not make such a good imitation of mahogany. It may be used without hesitation either for makingfumitureof a cheap kind entirely, or for the secondary portions of better articles.

Sequoia, or Californian red pine, has also been much used of late years for insideworkinstead of pine, and is especially applicable todrawers where the appearance of a white wood might be objected to. It is reddish in colour, and slightly resembles pencil cedar, being fine and silky, and, like it, splits easily. For this reason, as well as its remarkable softness, it is not so useful as it otherwise would be, and it may be well to note that it is quite unsuitable for general cons truction. It is very clean, and often runs to enormous widths. It is probably the softest wood known, too soft and spongy to be altogether pleasant to work.

Task 2. Rewrite these words into your vocabularies and learn them. Find the words in the text and translate the sentences with them.

diffuse-porous - рассеянно-пористый
development - развитие
moreover - кроме того
birch - береза
describe - описывать
below - ниже
pine - сосна
southern - южный
coast - побережье
reach - достигать
height - высота
thickness - толщина
quality - качество
since - так как
adaptable - применимый
saw – пилить
plywood - фанера
tar - смола
suitable – пригодный
sleepers - шпалы
pole - столб
occur - встречаться
veneer - шпон furniture - мебель
grain - текстура
besides - кроме того
enumerate - перечислять
include - включать
poplar - тополь
maple - клен
yew – тис
hornbeam - граб
enormous - огромный
bush - кустарник
rot - гниение
piece - кусочек
whereas - тогда как
magnifier - лупа
pore - пора
considerably - значительно
variable - изменчивый
width - ширина
because of - из-за
term - называть
springwood - весенняя древесина
consider - считать
ring-porous - кольцепоровый
uniform - однородный
throughout - повсюду
growth ring - годичное кольцо
temperate - умеренный
be referred to as - называться
annual - годичный
dense - плотный
wealth - богатство
resources - ресурсы
play a part - играть роль
grow (-th) - расти/рост/
border on – граничить
thin - тонкий
wood - лес, дерево
wooded - лесистый value (-able) - цена, ценный

timber - древесина
unique - уникальный
species - вид
comprise - включать
coniferous - хвойный
deciduous - лиственный
area - площадь
cedar - кедр
spruce - ель
larch - лиственница
ash - ясень
walnut - ореховое дерево
elm - вяз, ильм
extraction - добывание
distribute - распространять
soil - почва
form - образовывать
sawmill timber - пиломатериалы
raw material - сырье
possess - обладать
heavy - тяжелый
strong - прочный
resilient - упругий
resinous - смолистый
withstand - смолистый
productive forces - производственные силы
to some extent - до некоторой степени
be distinguished for - отличаться чем-либо
use (useful, usefulness) - польза /-ный, - ность/

Вывод по теме:

_____
_____
_____

Рефлексия:
У меня получилось _____
Было трудно_____
Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 8
ТЕМА: «Строение дерева хвойных пород»
«Tree's structure of coniferous species»

Task 1. Read and translate the text:

THE ELEMENTS OF WOOD STRUCTURE

All trees and shrubs have the same general structure, but differ greatly in details. Some of the structural variations are inherent; others are the result of environment. The properties of wood its adaptability for use depend, to a large extent, on the structure of wood.

All wood is composed of cells, which differ from each other in shape, size, thickness of walls and arrangement! These cells are long and slender in softwoods and are popularly known as wood fibres. Another kind of cells occurs in the hardwoods. These cells are of greater diameter and were given the name - vessels.

Rays are sheet or ribbons of tissue, extending radially. They snow in a cross section of oak trees as tiny spoke-like marks from centre to bark. One will find the rays clearly defined in a piece of oak, whereas in pines rays can be seen only with a magnifier.

Vessels are commonly known as pores. The hardwoods differ considerably from the soft-woods because they contain vessels and have rays which are more variable in width. Because of the presence of pores the wood of deciduous species was termed porous in contrast to that of coniferous ones which is termed nonporous. If the springwood pores are larger the hardwood is considered to be ring-porous on the other hand, a rather uniform diffuse-porous wood.

A layer of wood produced during one growing period is termed a growth layer or, in cross section, a growth ring. In temperate climate where there is only one growing season a year these layers are referred to as annual layers. The less dense, larger-celled, first-formed part of a growth layer may be called the early wood or springwood; the denser, smaller celled, later-formed part is the late wood or summerwood.

As it has been mentioned above, no two woods have identical structure. That's why wood technologists have a great variety of timber at their disposal.

Task 2. Rewrite these words into your vocabularies and learn them.

differ - различаться
inherent - врожденный
environment - окружающая среда
property - свойство
depend on - зависеть от
shape - форма
slender - тонкий
softwood - мягкая древесина
hardwood - твердая древесина
vessel - пора
serve - служить
tube - трубка
direction - направление
call - называть
sheet - лист, пластина
ribbon - лента
extend - простираться
tiny - мельчайший
spoke-like - спицеобразный
find - находить
define - определять
ray - луч
size - размер
cell - клетка
early - ранний
variety - разнообразие
have at one's disposal - иметь в распоряжении
summerwood - летняя/поздняя/ древесина

Task 3. Using the dictionary find synonyms among the following words:

Stem, conduction, timber truck, transfer, wood, to provide, principal, branch, main, to supply, twig.

Task 4. Using the dictionary find antonyms among words:

Thin, inner, dark, soft, outer, regular, hard, different, thick, light, irregular, the same.

Task 5. Find to nouns the combined adjectives:

Подберите к существительным сочетающиеся с ними прилагательные:

similar	layer
commercial	tissue
soft	timber
thick	bark
inner	source
significant	stem
distinct	structure
straight	sapwood

Task 6. Memorize the following synonyms:

unit = element = member; aim = purpose; bearing = supporting; trained = skillful; to fulfill = to carry out.

to place in position = to put in place;
artificial = man-made;
to get = to obtain;
timber = wood;
different = various.

Task 7. Put in the correct prepositions. (In, of, in, on, of, with, to, of)

1. Timber is one ..... the most important natural building materials.
2. Trees have always exerted significant effects……. people and the environment
3. ..... comparison ..... metal timber is lighter, cheaper and easier ..... work.
4. Its positive properties are strength..... combination..…low volume weight, the easiness... treatment, the simplicity ..... jointing.
5. Its negative properties lower the constructive value ..... timber.
6. Special chemical treatment makes timber resistant..... rot and fire.
7. There are different methods ….. seasoning timber.
8. Seasoning naturally …….. the open air or.....kilns presents no special problems.
9. Timber... different districts varies ..... hardness and this peculiarity is reflected ….. the working qualities.
10. Laminated timber beams offer high resistance ..... fire.

Task 8. Переведите, обращая внимание на временную форму глагола – сказуемого.

1. All woodworkers know that pine possesses high technical characteristics.

2. Last year I visited the furniture factory in Komsomolsk.

3. This year furniture making in the Far East has grown considerably.

4. After graduation from the Institute my brother will work at the pulp and paper complex in Amursk.

5. What are you doing? We are sawing this thick pine tree.

6. Lumbermen have just sawn this old pine.

7. Man used bark only as fuel but now woodworkers exploit even bark rationally.

8. My father has been working at this furniture factory for 10 years.

9. I shall have made this experiment before you come.

10. Lumbermen had provided the woodworking factory with all necessary raw materials by the beginning of the month.

_____

11. Now our factory is supplying high class veneer.

_____

12. At that time yesterday I was listening to a very interesting lecture on the protection of our forest wealth.

_____

Task 9. Заполните пропуски в предложениях словами, подходящими по смыслу.

1. The main parts of a tree are stem … and … . 2. Stem supplies … … to the woodworking industry. 3. Branches are……

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 9
ТЕМА: «Лиственные породы древесины»
« Deciduous species of wood»

Task 1. Read and translate the text without dictionary:

AMERICAN WHITEWOOD

American whitewood is one of the cast-known commercial woods from North America. The tree grows in the eastern areas of the United States and Canada. It should be mentioned that it is sometimes called yellow poplar.

This timber is used for furniture making, interior finish and in North America they use it widely for plywood manufacture.

American whitewood is of useful density, it has an average weight 32 lb./cu.ft. This timber is one that dries slowly. Stability factors when the wood has been dried properly are about average.

The sapwood of the species is thin, almost coloufless and is easily distinguished from the heartwood. This last is variable in colour from light to a darkish yellow, greenish or pinkish-brown; the growth ring figure is not very distinct. The grain is straight while the texture is close and uniform.

Sawing can be done cleanly with a standard surface. The reaction to all forms of finishing age it is adequate. Much of the timber that is to be used in the fumite industry is painted and the wood takes treatments very well indeed.

Larch. The wood of the larch possesses high technical qualities: it is heavy, strong, resilient, and resinous and withstands rot. That's why it is clear that larch is suitable for building, for sleepers, telegraph poles and is an excellent material for paper and hydrolysis manufacture.

Birch. This wood occurs in different kinds. As to yellow birch it gives a beautiful veneer and is suitable for cabinet and furniture making.

Manchurian Walnut. The wood has high technical values, giving high-quality plywood's, high-class furniture and is of a very beautiful colour and grain. Besides the species enumerated the forests of the Far East also include: ash, poplar, maple, yew, hornbeam and an enormous number of different bushes.

Task 2. Read the text and retell its contents in Russian.

This species widely distributed throughout the northeastern United States and Canada. The sapwood of the species is not clearly defined. As to the heartwood it is pale brownish or nearly white and rather uniform. There is a slight contrast between the springwood and the summerwood.

It should be noted that Eastern Spruce has a fine texture and that's why its timber is usually used for paper pulp. Besides, it is used as lumber for building purposes, boxes and musical instruments.

Task 3. Read the text and retell its contents in English.

Coffee-tree is a large tree that grows in the central part of the U.S.A. This species is generally known rs Kentucky Coffee-tree. There is one other species in central China.

The sapwood and the heartwood are clearly defined; the sapwood is thin, greenish yellow.

As to the heaptwood it is reddish brown in colour. The texture of the timber is very coarse.

The strong and durable timber is used for fuel, posts, railway sleepers, bridge timbers and for furniture making as well.

Task 4. Rewrite these words into your vocabularies and learn them.

birch - береза
veneer - шпон
furniture - мебель
grain - текстура
poplar - тополь
maple - клен

yew – тис
hornbeam - граб
enormous - огромный
bush - кустарник
ash - ясень
walnut - ореховое дерево
elm - вяз, ильм
cabinet making - изготовление мебели

Task 6. Read grammar rules on page 100, 102 and make exercises.

Вывод по теме:

_____

_____

Рефлексия:
У меня получилось_____
Было трудно_____
Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 10
ТЕМА: «Строение дерева лиственных пород»
«Tree's structure of deciduous species»

Task 1. Read and translate the text in writing:

PRINCIPAL PARTS OF A TREE

The body of a tree consists of a more or less cylindrical axis; the two principal parts of the axis are stem and the root. The main stem and its ramification (branches, limbs, and twigs) support the foliage in the light and air and provide channels for the conduction of water and foodstuff.

To the lumberman the ideal tree is one that has formed a long, straight, cylindrical bole without side branches. Since a Limb is merely a subdivision of the main stem it follows that the two are similar in structure. Man used limbs only as cordwood but now lumbermen are doing their best to exploit even limbs rationally. Although roots resemble stems in structure, they are an insignificant source of commercial timber. It is the stem of the tree that supplies wood fibre to the industry.

A section across any stem will reveal three distinct parts. Soft tissue occupies the pitch. Surrounding this is a ring of harder tissue, the wood itself. The bark has grown around the wood and formed the third distinct part which may be thicker than the wood. Stems from different trees have the same arrangement, but the relative proportions of the three parts are different.

The woody part is differentiated into an outer, light-coloured layer of physiologically active sapwood and an inner and usually darker cylinder of heartwood composed of inert elements.

Although wood and bark may appear to be in contact, in reality they are separated by a thin layer of generative tissue, the cambium. When the tree is actively growing, the cambium is full of sap; this layer is the source of new wood and new inner bark.

Task 2. Make the sentences with these words.

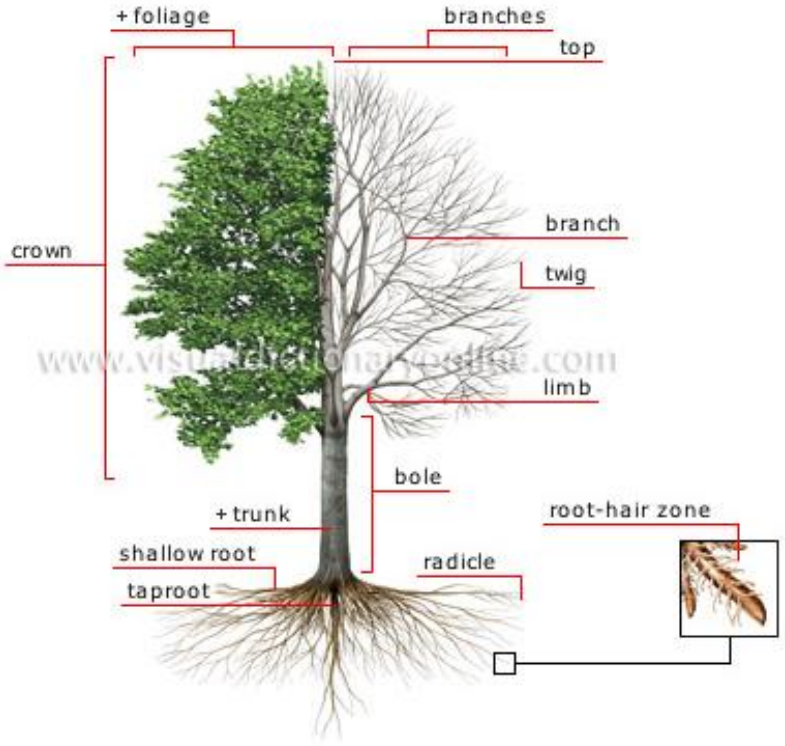
1. axis – ось
2. stem – ствол
3. root – корень
4. ramification – разветвления
5. branch – ветвь
6. foliage – листва
7. lumberman – лесоруб
8. lumber – поделочный лес
9. similar – похожий
10. subdivision – подразделение
11. cord wood – топливная древесина
12. irregular – нервный
13. insignificant – незначительный
14. source – источник
15. fibre – волокно
16. reveal – обнаруживать
17. distinct – отчетливый
18. tissue – ткань
19. pitch – сердцевина
20. envelope – окружать

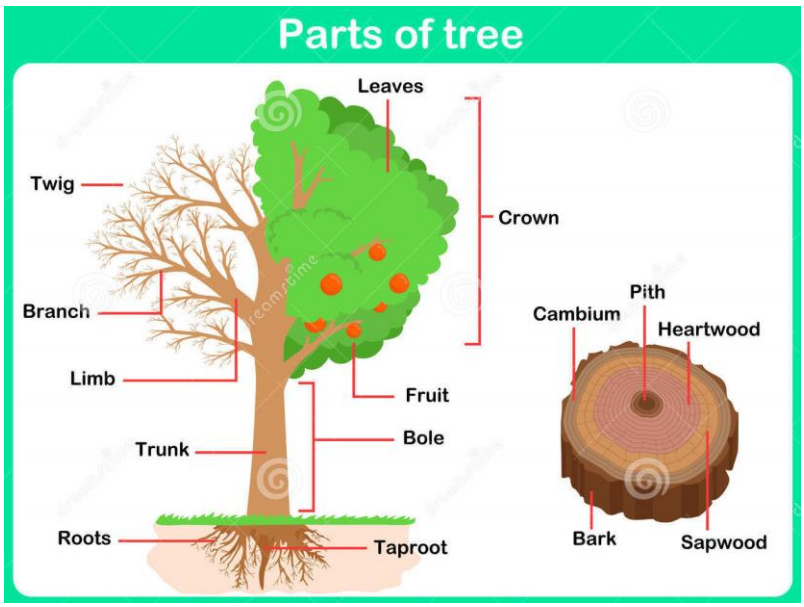
21. bark – кора
22. outer – наружный
23. sapwood – заболонь
24. heartwood – ядровая древесина
25. sap – клеточный сок
26. cambium – подкорковый слой
27. food stuff – питательные вещества
28. fir-needle - еловая игла хвойная игла
29. to consist of - состоять из
30. to hold - держать
31. to supply - обеспечивать, снабжать
32. to support - поддерживать
33. to reach - достигать
34. to manufacture - производить
35. to digest - переваривать, усваивать
36. crown - крона
37. nutrition – питание

Task 3. Read and translate the words in writing

Lumber-_____
Plywood -_____
Pulpwood -_____
Timber -_____
Pine -_____
Fir-_____
Spruce -_____
Larch -_____
Oak -_____
Maple [meipl] -_____
Birch-_____
Beech -_____

Task 4. Look at the picture. Remember the parts of a tree.





Task 5. Read, translate and learn the following sayings.

1. Though a tree grows ever so high, the falling leaves return to the ground. (Malayan proverb)

_____

_____

2. A tree never hits an automobile except in self defense. (American proverb)

_____

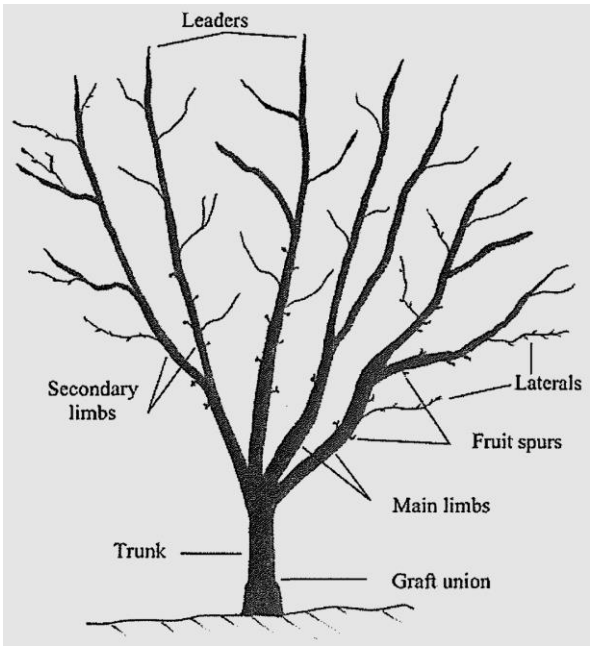
_____

3. Trees are the earth's endless effort to speak to the listening heaven. (Rabindranath Tagore)

_____

_____

***Task 6. Look at the picture. What can you say about this tree?**



Вывод по теме:

Рефлексия:

У меня получилось _____

Было трудно _____

Интересно _____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 11
ТЕМА: «Пороки древесины»
«Flaws in wood»

Task 1. Read and translate the text:

FLAWS IN WOOD

Trees, like people, are vulnerable to many diseases. Like people, trees are attacked in various places by different kinds of diseases. Forest pathology is the study of diseases of trees. Some foes work on the main body trunk, some on the roots, and some on the leaves. Vigorous trees are attacked less by diseases. The older, weak trees or young seedlings that are struggling to become established trees are the most susceptible.

If a forest is managed correctly, seldom will disease be serious enough to require overt control. Well-managed forests are healthy and comparatively devoid of disease.

Tree diseases are of two main types: nonparasitic and parasitic, often called environmental and organic. The nonparasitic diseases are caused by drought, sunscald, winter injury as from heavy ice storm and snow, improper nutrition of the trees, air pollution by smoke and gases, flooding, and soil pollution. The salt laid on the highways during winter months pollutes the nearby soil and in some instances kills trees. Ocean spray, which feels so good on ones face, is a prime cause of disease in the coastal area. This sea spray can be blown inland by hurricanes and result in tree damage far from the coast.

The parasitic diseases are caused by organisms that live within various parts of nutrients from it while contributing nothing to the well-being of the 17 tree. There are five groups of such organisms: viruses, bacteria, nematodes, mistletoes, and fungi.

Viruses cause minor gall, a condition known as witches-broom, and the serious phloem necrosis in elms and locusts. A number of bacteria that are involved in many serious diseases of agricultural plants are of little importance in forest trees.

Nematodes, a group of parasitic worms, can be a problem for tree seedlings.

Mistletoes, parasitic seed-bearing plants, are widespread and cause serious damage.

The most important cause of tree disease is the parasitic fungi. Saprophytic fungi decay dead tree and are important in the recycling of nutrients within the forest ecosystem. The parasitic fungi attack living trees and are serious problems in all forest regions. Considerably more timber is lost annually to fungal disease than is lost to fire.

Task 2. Learn the words:
1. disease - заболевание, болезнь
2. vulnerable - уязвимый, ранимый
3. susceptible - восприимчивый
4. coastal - прибрежный
5. mistletoe - омела белая
6. worm - червь
7. decay - гниение, гнить
8. phloem - флоэма
9. fungi - грибки, плесень

Task 3. Answer the questions:
1. What are trees vulnerable to?

_____

_____

2. What does “Forest pathology” study?

_____

_____

3. What parts of a tree can be attacked by different diseases?

4. Which trees are the most susceptible to diseases?

5. What are the two main types of tree diseases?

6. What are the non-parasitic diseases caused by?

7. By how many agents are the parasitic diseases caused by?

*__Task 4. Translate the sentences into English.__

1. Деревья подвержены заболеваниям.

2. Старые, ослабленные деревья и молодые саженцы наиболее подвержены болезням.

3. Существует два основных типа заболеваний деревьев.

4. Нематоды - это группа червей паразитов.

5. Грибы, атакующие деревья, - это серьёзная проблема лесонасаждений.

6. От грибковых поражений погибает больше деревьев, чем от лесных пожаров.

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 12
ТЕМА: «Контрольная работа № 1»
«Review work»

Вариант I

I. Раскройте скобки в предложениях со сложным дополнением

1. He made me (do) it all over again.
2. Her father made her (learn) the lessons.
3. If you want us (make) the work quickly you should let us (start) once.
4. Would you like me (read) now?
5. They won't let us (leave) the classroom till our control work been checked.
6. He wouldn't let the children (play) in his study.

II. Переведите на английский язык предложения со сложным дополнением

1. Вы ожидаете, работа будет сделана скоро?
2. Вы хотите, чтобы мы встретились сегодня?
3. Мы слышали, что она знает, когда мы сдаем экзамен.

III. Переведите на русский язык предложения со сложным дополнением

1. Don't let them play in the street.
2. He didn't notice that happen.
3. I expect you to come in time.
4. I saw him drive the car.
5. I want you to help me.
6. We watched the plane land.
7. They allow to use dictionaries at exam.

IV. Соедините предложения, употребив соответствующие союзы или местоимения

1. The man ..... you see at the desk is my secretary.
2. Where is the shop .....sells gloves?
3. The book ..... you have given to me is very interesting.

V. Преобразуйте следующие предложения из действительного залога в страдательный

1. We are sawing this thick pine tree.
2. Lumbermen have just sawn this old pine.

3. Man used bark only as fuel but now woodworkers exploit even bark rationally.

4. I shall have made this experiment before you come.

VI. Согласование времен. Поставьте глаголы, данные в скобках, в нужном времени

1. 1 .We (to walk) for about two hours when at last we (to see) the lake.

2. When I (to go) to the office the next day, I (to find) the books exactly where I (to leave) them.

3. The manager (to leave) the office before I (to arrive).

Вариант II

I. Раскройте скобки в предложениях со сложным дополнением

1. The teacher advised us (use) dictionaries.

2. Her lather doesn't allow her (go) to the cinema alone.

3. We expect our basketball team (win) next game.

4. We don’t want you (tell) anything.

5. I saw them (open) the window.

6. That is too difficult for you to do, let me (help) you

II. Переведите на английский язык предложения со сложным дополнением

1. Вы хотите, чтобы дети играли здесь?

2. Мы ожидаем, что они хорошо проведут у нас время.

3. Я хочу, чтобы он закончил эту работу.

III. Переведите на русский язык предложения со сложным дополнением

1. Don't make me laugh.

2. English climate is considered to be mild.

3. I believe her to be a very good teacher.

4. I didn't hear you come into the room.

5. They didn't feet the train start.

6. We watched the children playing in the yard.

7. I saw them working in the lab.

IV. Соедините предложения, употребив соответствующие союзы или местоимения

1. My neighbour ..... is a doctor has moved to a new flat.
2. Do you remember the day ..... he arrived in Moscow?
3. Unfortunately, I can't remember the person ..... I have borrowed the pen from.

V. Преобразуйте следующие предложения из действительного залога в страдательный

1. Two big and several smaller enterprises produce wood. (Wood ...).
2. They sell timber of conifers abroad (Timber of conifers ...).
3. Animal breeding and hunting enterprise stores up berries and medicine plants. (Berries and medicine plants ...).
4. The Nanai forestry controls forest utilization, guards and protects the forest. (Forest utilization, the forest...).

VI. Согласование времен. Поставьте глаголы, данные в скобках, в нужном времени

1. He (to thank) me for what I (to do) for him.
2. When I (to come) to see my friend, his sister (to tell) me that he (to leave) half an hour before.
3. When he (to be) in me that he (to visit) the places where he (to play) as a boy.

Вариант III

I. Раскройте скобки в предложениях со сложным дополнением

1. Please let me (know) the results of your exam as soon as possible
2. He made us (wait) for two hours.
3. I let him (go) early as he had done his task.
4. I'd like him (enter) the university but I can't make him (do) it.
5. I want her (learn) English.
6. I heard the door (open) and saw ray friend (come) into the room.

II. Переведите на английский язык предложения со сложным дополнением

1. Вы хотите, чтобы мы обсудили этот вопрос сегодня?

2. Мы ожидаем, что на этом месте будет построен новый дом.

Вы хотели бы, чтобы работа была сделана сегодня?

III. Переведите на русский язык предложения со сложным дополнением

1. He is ordered not to be late

2. I advise you to enter the institute.

3. I would like you to finish your work.

4. Nobody noticed him go out.

5. She felt somebody touch her hand.

I find your story to be very interesting.

6. I heard her playing piano.

IV. Соедините предложения, употребив соответствующие союзы или местоимения

1. The shop ..... we buy our food is closed.
2. Mother said to her son ..... he must help her about the house.
3. This box is ... .heavy ..... that one.

V. Преобразуйте следующие предложения из действительного залога в страдательный

1. Lumbermen had provided the woodworking factory with all necessary raw materials by the beginning of the month. (The woodworking…)

2. Now our factory is supplying high class veneer. (High…)

3. At that time yesterday I was listening to a very interesting lecture on the protection of our forest wealth. (A very….)

4. Two English - speaking countries across the ocean possess large forest resources. (Large….)

VI. Согласование времен. Поставьте глаголы, данные в скобках, в нужном времени

1. The telegram (to arrive) five minutes after you (to leave) the house

2. The train couldn't stop because it (to travel) too fast at the time.

3. I (to shout) to him to stop? But he (not/to hear) me.

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 13
ТЕМА: «Основные свойства древесины»
« The basic properties of wood »

Task 1. Read and translate the text:

THE BASIC PROPERTIES OF WOOD

Humidity

Wood humidity (the amount of water contained therein) significantly affects its physical and mechanical properties, determines its suitability for construction.

When changing humidity from zero to the saturation point of the wood cell walls varies its volume and linear dimensions of the element. Swelling - with humidity increase. Shrinkage - at lower. Shrinkage and swelling always occur in the transverse direction, and almost never in the longitudinal. The denser the wood, the greater the shrinkage and swelling. Sapling shrinks more than the old, cut down in the winter dries out more than the summer.

Shrinkage of wood in the tangential direction - 6-12%, in the radial - 3-6%. This is the cause warping of boards.

Green wood contains 80-100% moisture. In coniferous sap moisture 2-3 times more kernel moisture. Wood used in construction work must have a moisture content of 12-18%. At higher wood humidity up to 30% of its strength diminishes, the deformability increases.

The process in the wood rotting may begin with a moisture content of 18-20% (but less than 50%) in the presence of air and at a temperature in the range of from 5 to 45 °.

Thermal conductivity

Due to the porous structure of the wood is a poor conductor of heat. The thermal conductivity along the fibers longer than crosswise. Dense and wet wood is more thermal conductivity than the less dense and dry.

When restoration is recommended for replacement or dokomponovke parts or elements of those materials, which are used initially. Before the beginning of the restoration of monuments in the survey is necessary to determine which of the wood at the facility met certain elements and, if possible, the presence of waste wood have any special features (curly gain, tight or loose, and the like).

The mechanical properties of wood

Wood - anisotropic material, its mechanical properties are different in different directions.

In coniferous wood late strength 2-3 times higher early density. As too narrow or too wide annual rings have a reduced strength of the wood. On the strength of wood is greatly influenced by the load application rate and the duration of its action. With rapid application tensile strength above. Wood has the property aftereffect - a possible increase in deformation after load application.

Coniferous wood has a high tensile strength along the fiber at break across the fiber tensile strength is 20-30 times less ... Resistance to bending timber depends on the shape of the cross section, and the largest is in the logs with a circular section.

While chopping wood affects the physical and mechanical properties. Usually winter felling a tree is considered more durable, as winter fades movement juices. Any deviation from the normal tree structure of the conditions referred to the vices vices include: different effects of atmospheric influences - kososloynost, curly gain, the formation of nodules, dieback, thrash,

knotty. For vices are fracturing. Medullary cracks are found on the face, metik - a crack in diameter logs, there are frost cracks, beat them.

Biological destroyers of wood

These include: wood-destroying fungi, insects and molds.

The most dangerous are the destroyers of brownies mushrooms, of which there are several types.

Favorable conditions for their development are certain wood humidity (20-55%), air temperature is +5 and humidity 80-95%. By reducing the humidity mycelium gradually dies. Brownies fungi secrete moisture hydrating timber. During the rotting timber changes color, acquiring first yellowish, reddish or brownish tint, then becoming darker and less hard, and in the final step of rot - brown or dark brown, breaking length and breadth of fibers.

For wood-destroying insects are barbel-woodcutter beetle-grinder and some other species. The process of destruction takes place in insect thicker timber. On the surface there are individual holes of circular or oval in cross-section from 1 to 9 mm. Wood threaded passages larvae, and of those holes is poured formed of wood powder. Fresh wood failure differ lighter color drilling flour flight holes and passages.

Types of wood used in folk architecture

In ancient times, depending on whether the machining tool, the list of harvested material was more limited. With the development of techniques and technologies, it significantly expanded.

The main materials are:

1. Logs - logs, ridges, Podvyaznikov, recuperator, poles (Podvyaznikov - logs diameter 10-15 cm and about 15 m long, recuperator -. Logs of the same diameter but a length of 6-10 m, poles -. Logs of diameter less than 10 cm).. Logs had used various lengths, but given the difficulty of working with long logs, moreover, that in the old days for the construction of large buildings taken wood thickness of 40 cm or more. However, it is usually not much higher than the currently used (on average 6-10 m) . Currently diameter logs are divided into three groups: minor ot8 logs with diameters up to 13 cm, medium - from 14 to 24, large - of 26 cm or more.
2. Hewn timber - beams, sleepers.
3. Plate - originally - logs split lengthwise into two parts, in the following sawn timber into two parts.
4. Lumber - "tos" to ubiquitous saws in the "after Peter the" epoch boards obtained during splitting logs and their subsequent obtosyvanii ax, laborious work, however tos possibly replaced plates.
5. Ploughshare - is made usually from aspen tosa handled ax on the right form.

Requirements for the choice of material for the restoration must be specified in the restoration project materials. Basic requirements - the material must comply with a true General Settings - breed, size, external characteristics, moisture content should not be more than 20%, have unacceptable defects and damage.

Task 2. Write out the main properties of wood

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 14
ТЕМА: «Физические свойства древесины»
«Physical properties of wood»

Task 1. Read and translate the text from Russia into English in writing:

ФИЗИЧЕСКИЕ СВОЙСТВА ДРЕВЕСИНЫ

Дерево – один из ценнейших природных материалов, с которым трудно соперничать. Оно применяется в строительстве, отделке помещений, производстве музыкальных инструментов, изготовлении заборов и ограждений.

Чтобы правильно выбрать материал, необходимо познакомиться с физическими свойствами дерева. Их существует более десятка, но достаточно знать лишь несколько основных: внешний вид; плотность; влажность; твердость.

ВНЕШНИЙ ВИД ДРЕВЕСИНЫ

С внешним видом все понятно. Прежде всего, это цвет дерева, который зависит от экстрактивных веществ. Различают цвета: от светлого (ель, береза, липа) до коричневого (орех).

Следующий показатель внешнего вида дерева – его текстура.

На разрезах можно увидеть расположение годичных колец, волокон, направление лучей из сердцевины. Это свойство древесины различных пород используется при выполнении отделочных работ. В лиственных породах ярко выражены годичные кольца, радиальные лучи. Текстура хвойников интересна контрастом цвета молодой древесины и зрелой. Древесина с хаотичным расположением волокон дает красивую и оригинальную текстуру.

К внешнему виду относится свойство древесины отражать световые лучи. Блеском обладают пиломатериалы из дуба, платана, бука. Приглушенный (матовый) блеск выражен у древесины липы и осины. Шелковистый дают ива, ясень, вяз. Серебристый блеск – у сибирского кедра и сосны.

ПЛОТНОСТЬ И ТВЕРДОСТЬ

Эти показатели относятся к основным физическим свойствам древесины. Учитываются при выборе дерева для стен, устройстве полов. Плотность измеряется в единицах веса на объем. К плотным породам относят самшит, сливу, ясень. «Золотую середину» занимают береза, дуб, бук, лиственница, грецкий орех, вишня. Легкую плотность имеют самые распространенные пиломатериалы из сосны, ели, липы.

Практическое значение плотности учитывается при отделке лестниц, полов. Плотная древесина менее подвержена истиранию, но хуже пропитывается различными составами.

Твердость дерева имеет значение при ее дальнейшей обработке – распиловке, острожке. По этому свойству древесина делится на: мягкие сорта (ель, осина, липа, сосна); твердые сорта (лиственница, ясень, клен, береза, бук); очень твердые сорта (белая акация, кизил, самшит, эвкалипт).

ВЛАЖНОСТЬ ДРЕВЕСИНЫ

Влажность древесины относится к важным показателям, отражается на всех свойствах древесины. Гигроскопичность древесины можно отнести к ее минусам. Способность впитывать влагу из окружающей среды приводит к гниению деревянных конструкций. Чтобы продлить жизнь дереву, необходимо произвести его сушку.

Процесс удаления излишней влаги из дерева – ответственный этап подготовки древесины. От того, насколько хорошо высушено дерево, зависит качество последующей обработки материалов.

Условно древесину можно разделить на: влажную – более 20 процентов влаги; воздушно-сухую – от 15 до 20 процентов; комнатно-сухую – до 14 процентов; абсолютно-сухую.

При удалении влаги происходит уменьшение объема и размера древесины. Начинается всем известный процесс усушки. Свойство важно учитывать до начала строительных работ с деревом. Неравномерное высыхание может привести к деформации материала в разных направлениях. Усушка идет в поперечном и радиальном направлениях неравномерно. Порой это приводит к короблению досок и бруса. Такой материал непригоден для строительства.

Важно! Помните, что срубы из бруса, бревна всегда дают усадку. Необходимо знать величину усушки разных конструкций. Она закреплена в ГОСТ 6782.1-75. Учитываются также вид древесины, конструкция дома, климатические условия.

КАК ПРАВИЛЬНО ВЫБРАТЬ ПИЛОМАТЕРИАЛЫ?

При выборе нужно учитывать известные вам физические свойства дерева. Обращайте внимание на породу, распиловку, качественную сушку материалов.

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 15
ТЕМА: «Материалы, используемые в деревообработке».
« The materials used in woodworking »

Task 1. Read and translate the text in writing:

WOOD / TIMBER / LUMBER AS A CONSTRUCTION MATERIAL

Wood has been used as a building material for thousands of years, being second only to stone in terms of its rich and storied history in the world of construction. The chemical properties of wood are inherently complex, but even in spite of this challenge; human beings have successfully harnessed the unique characteristics of wood to build a seemingly unlimited variety of structures. This exceptionally versatile material is commonly used to build houses, shelters and boats, but it is also extensively used in the furniture and home decor industry as well.

Perhaps one of the biggest advantages of using wood as a building material is that it is a natural resource, making it readily available and economically feasible. It is remarkably strong in relation to its weight, and it provides good insulation from the cold. Wood is highly machinable, and can be fabricated into all kinds of shapes and sizes to fit practically any construction need. Wood is also the perfect example of an environmentally sustainable product; it is biodegradable and renewable, and carries the lowest carbon footprint of any comparable building material. In addition, no high-energy fossil fuels are required to produce wood, unlike other common building materials such as brick, steel or plastic.

LUMBER OR TIMBER?

The words "lumber" and "timber" are often used interchangeably to refer to wood used in construction work, but there has been considerable debate as to which term should apply in a given scenario. Pieces of wood those are smaller than 5 inches wide by 5 inches thick (regardless of length) are generally referred to as lumber. These pieces are machine-planed and sawn to fit certain dimensional specifications (e.g., 2x4", 2x8", etc.) and are primarily used in residential construction. Pieces of wood over 5 inches wide by 5 inches thick (regardless of length) are referred to as timber, and any timber pieces that exceed 8" wide by 8" thick are referred to as beams. As timber pieces are larger in dimension, they are often used to construct the frames of large structures such as buildings and bridges. Timber is also commonly utilized in large quantities for railroad ties, mine shaft supports and crossbeams on utility poles.

Another type of wood commonly used in construction is known as engineered wood. As its name implies, engineered wood is the product of a more intricate fabrication process in which various wood strands, fibers, veneers, or other forms of wood are glued together to form a type of composite material that is used for specific construction applications. Common examples of engineered wood include plywood, glued laminated timber (a.k.a. "glulam"), oriented strand board, fiberboard, and particle board. Engineered wood products are commonly used in a wide variety of residential, commercial and industrial construction projects.

TYPES OF WOOD

Wood has traditionally been classified into two primary categories: hardwood (any leaf-bearing tree) and softwood (any cone-bearing tree). As with most other general classifications, this can get somewhat confusing due to the fact that there are some leaf-bearing trees that can

have relatively soft wood, while some coniferous trees that can have rather hard wood. Generally speaking, however, hardwoods are by and large considered to be heavier and more dense than softwoods. Hardwoods are commonly used in the construction of walls, ceilings and floors, while softwoods are often used to make doors, furniture and window frames. Some examples of the most popular hardwoods include oak, maple, mahogany, cherry, walnut, and teak. Commonly used softwoods include pine, hickory, beach, ash, birch, and cedar.

Task 2. Read, translate and learn the following sayings:

1. To forget how to dig the earth and to tend the soil is to forget ourselves. (Mahatma Gandhi)

2. When eating bamboo sprouts, remember the man who planted them (Chinese proverb)

3. From a fallen tree, all make kindling. (Spanish proverb)

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 16
ТЕМА: «Материалы, используемые в деревообработке».
« The materials used in woodworking »

Task 1. Read and translate the text in writing:

LUMBER GRADES

The National Hardwood Lumber Association (NHLA) of America has created a grading system to rate various types of lumber, primarily based on the amount of defects that can be found in a board. Below is a brief summary of NHLA grades for both hardwood and softwood lumber.

Hardwoods

1. First and Seconds (FAS) - This is the highest grade possible for hardwood lumber, and is mainly suited for high-quality furnishings, solid wood mouldings and interior joinery. Contains 83% usable material on one face (minimum 6" x 8" board size).
2. Select (Sel) - Also contains 83% usable material, but for a smaller minimum board size (4" x 6") than FAS.
3. #1 Common (#1 Com) - Contains 66% usable material on a 3" x 4" board face.
4. #2 Common (#2 Com) - Contains 50% usable material on a 3" x 4" board face.

Softwoods

1. C Select - Almost completely free of all defects; commonly used for cabinets and interior trim
2. D Select - Comparable to C Select, but may contain small knots (no bigger than the size of a dime)
3. 1 Common - Contains small, tight knots that won't fall out; offers a high-quality knotty appearance (e.g., pine)
4. 2 Common - Very similar to 1 Common, but with slightly larger knots; often used in shelving and paneling
5. 3 Common - Larger knots that what are found in 2 Common; typically used for crates, boxes and fences

Task 2. Read and translate the text oral.

BENEFITS OF WOOD IN CONSTRUCTION

Wood carries several benefits that make it an excellent candidate for use in a wide array of construction projects. One such benefit is its thermal properties, which give it an advantage in terms of its resistance to high temperatures. Unlike steel, which can expand or even collapse in high heat, wood actually dries out and becomes stronger as the heat increases. In addition, the heat conductivity of wood is relatively low in comparison to other materials such as aluminum, marble, steel, or glass. This gives wood an advantage in terms of being used in various applications such as matches, hardware equipment handles, wall coverings, and ceilings.

Wood also contains highly-sought-after acoustic properties. It can absorb sound and echoes, and is a favorite material of choice for the construction of structures where proper acoustics is important, such as concert halls. Wood is resistant to electrical currents, making it an optimal material for electrical insulation. Another important characteristic of wood is its tensile strength, which is its ability to bend under pressure without breaking. Wood is exceptionally light in proportion to its tensile strength, making it the preferred construction choice for surfaces that take a constant beating such as basketball courts and bowling lanes. Tensile strength is also one of the main reasons for choosing timber as a building material; its remarkably strong qualities make it the perfect choice for heavy-duty building materials such as structural beams.

Of the many construction materials that a person can choose from, wood stands out as a unique and amazingly versatile product. Its aesthetic appeal, tensile strength, insulation qualities, and ease of fabrication enable it to remain a favorite choice for use in an extensive array of construction applications.

Task 3. Rewrite the underlined words into your vocabulary translate and learn them.

_____

_____

_____

_____

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось _____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 17
ТЕМА: «Виды материалов, получаемые из древесины»
«The types of materials received from wood»

***Task 1. Read and translate the text in writing:**

TYPES OF WOOD FOR COMMON WOODWORK

PLYWOOD

A] PLYWOOD:
Most people recognize this. These are sheets of wood pasted together. However plywood comes in many specifications based on the chemical treatment of the wood and the glue used to bind the sheets together which determines its type of use - see the specifications section below. Also - Plywood is available in multiple thickness from 2 mm to 38mm

BLOCK BOARD

B] BLOCK BOARD:
This is cubical stocks of wood sandwitched between two thin sheets of Ply. As is obvious from its construction block board has higher resistance against warping or bending. It is available in the standard thickness of 16, 19 & 25 mm
Again Blockboard comes in different specifications that determine its use in interior applications...more on that later

MDF

C] MEDIUM DENSITY FIBRE (MDF):
MDF in engineered wood basically made from wood pulp. As is obvious from its construction MDF has low resistance to warping/ bending & moisture. Also nails do not hold well to join MDF sheets together, they need to be either screwed or joined using a minifix (google for it...). Because of this a lot of carpenters are not comfortable working with MDF. The good thing about MDF however is that you get "pre laminated" MDF in different colours, shades & textures and if used intelligently it can help bring down the cost of construction & also enhance the look of woodwork.

PARTICLE BOARD

D] PARTICLE BOARD:
This is chips of wood glued together and pressed into sheets. Particle board is the cheapest of the above 3 options, it however has least resistance to moisture. Because of its low density & weight Particle board offers good resistance to bending especially in applications requiring long panels (such as a 9 foot high wardrobe doors). Particle board also is available in "pre laminated" form and its correct use can help bring down construction cost.

2) WOOD STANDARDS AND SPECIFICATIONS:
Indian standards are not very well documented and there isn't much user understandable documentation available. What I have mentioned below is built on current market terminology & the products available in the market for a layman to make sense of the same. The paragraphs below are not meant to stand up to an ISI inspection but should definitely help "YOU" make informed decisions.

Task 2. Look at the picture and translate the words into English

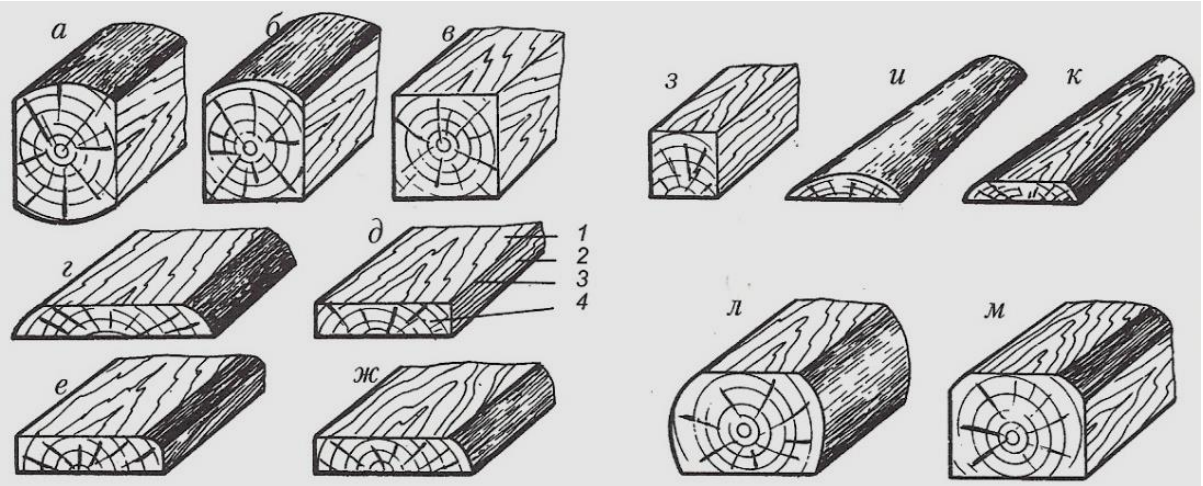


Рис. 28. Виды пиломатериалов
а — двухкантный брус, *б* — трехкантный брус, *в* — четырехкантный брус, *г* — доска необрезная, *д* — чистообрезная доска, *е* — обрезная доска с тупым обзолом, *ж* — обрезная доска с острым обзолом, *з* — брусок, *и* — облапол горбыльный, *к* — облапол дощатый, *л* — шпала необрезная, *м* — шпала обрезная; *1* — пласть доски, *2* — кромка, *3* — ребро, *4* — торец

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 18
ТЕМА: «Технологическое оборудование деревообрабатывающего производства»
« Processing equipment of woodworking production»
Task 1. Read and translate the text:

EQUIPMENT FOR THE PRODUCTION OF VARIOUS WOODEN ITEMS.

Woodworking machinery of special types is employed in many branches of industry, for example, in the production of matches, pencils, shoe lasts, wooden heels, artificial limbs, spoils goods, musical instruments, bobbins, vehicle wheels, foundry patterns, ship components, automobile bodies, wooden parts of sewing machines, reels, wooden rifle, stocks, handles of shovels and other similar implements, etc.

We shall consider only a few of the more interesting of these machines selected from various fields. The machinery used in match production includes veneer lathes, similar to those describes previously for veneer into match sticks into paraffin and them in the incendiary mixture to form the match head; automatic machines for assembling and gluing the boxes; filling them with matches; etc. All match production machines have high outputs; the automatic dipping machine, for instance, produces 1.5 million matches per hour the designs of these automatic mechanisms.

The automatic slicing machine may be considered as an example of the group of machines used in match production. It consists of pulley 1, crankshaft 2, pitman 3, knife slide 4, knife 5, feed rolls 6, driving 7 and driven 8 bevel gears of the feed mechanism, ratchet 9, feed pawls 10, fixed pawls 11, flywheel 12, tie- rod 13, screw 14, of the roll pressure device, nut 15, rods 16, hand wheel 17, bundle of veneer 18, and pitman adjusting member 19 by means of which the knife slide is set up in height.

Cutting principle of the slice

We see the crankshaft 2, pitman 3, knife slide 4, knife 5, and bundle of veneer 6, placed on the bottom board 20. The latter, together with the veneer, is fed forward periodically by the ratchet gear 9 and 10 and the vertical feed rolls 6 upon each return (up) stroke of the knife. The board is fed along rolls 21 of table 22. The upper layer of veneer is smoothed down by shoe 23 of cross- member 24. The crankshaft speed is 90 rpm; the knife slide stroke is 200 mm. The bundle of veneer accommodated may be up to 115 mm high, up to 3000 mm long and 290 mm wide. The veneer is fed 84 mm per revolution of crankshaft; the output is about 60000 boxes per hour. The motor rating is lkW; the machine weighs 550 kg.

Various automatic moulders; assembling, finishing, and other machines are used in pencil production. Pencil slats (stock from which 6 half pencils are made) are machined by automatic moulders of the grooving type These machines plane one face and cut grooves for the lead in tire other face. After the lead is inserted and the blanks are glued together from two slats, the pencils are shaped in two passes on the two sides, in another automatic moulder, the pencils being cut apart in the second pass. In both automatic moulders, the slats are fed out of the magazine by a pusher feed mechanism, driven through a link movement by a motor. In addition to these, the pencil industry uses cut- off machines in which the pencil ends are finish cut with disk knives. These knives are continuously sharpened during operation by a special built- in sharpening attachment. Typical of this group of machines is the automatic pencil moulder. It consist of the main frame 1, table 2, working spindle 3, driven by motor 4; first pair of rolls 5, feeding the glued slats containing the leads above the cutter; top pressure 6, second pair of rolls 7, feeding the slat under the same cutter; bottom pressure 8; first magazine 9 for the glued blanks; first pusher 10 driven by the link motion 11 so that it has a slow, uniform forward travel to feed the blank between the first pair o rolls and a rapid return motion. The machine also has a second (intermediate) magazine 12 for the blanks machined on the first side This magazine has a second pusher with its link motion 13 which feeds the blanks in the opposite direction to the second pair of rolls, and a box 14 for the cut apart pencils produced when the blank is shaped on the second side. Motor 15 hives the whole feed mechanism, including the rolls and the link motions through

a belt transmission. Cabinet 16 contains the electrical equipment

Task 2. Rewrite the underlined words into your vocabulary translate and learn them.

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Task 3.Retell the text.

Вывод по теме:

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Рефлексия:

У меня получилось _____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 19
ТЕМА: «Оборудование для лесопильного производства».
«Equipment for sawing production»

Task 1. Read and translate the specifications of debarking systems from magazin of Nicolson forest products equipment group in writing:

MORBARK 640 LOG DEBARKER

BENEFITS

- Multi purpose debarker that can be utilized in chip plants and sawmills and will accept soft woods, hardwoos, small and large logs.
- Front and back yoke assemblies are adjustable, allowing the operator to properly center either large or small diameter sawlogs on the center of the cutterhead.
- The hydraulic system has been engineered with proper reliefs to reduce or eliminate shock load to all working parts of the machine helping to keep downtime and maintenance costs to a minimum.

The trough-type infeed and outfeed conveyors are variable in length up to 80'.

The all steel infeed conveyor is fabricated from 5/8" formed plate steel with 3/8" gussets is equipped with Morbark's exclusive all-steel welded track type chain

SPECIFICATIONS

Note: Specifications may vary with equipment options

03052010

GENERAL

Length (includes infeed and outfeed sections)	53'1"
Width (debarker section)	11'6"
Height (debarker section)	8'10"
Weight (debarker section)	10,000 lbs.
Infeed weight (standard)	5,000 lbs.
Outfeed weight (standard)	6,000 lbs.
Handles Material	6" – 40" diameter
Production	Up to 100 lineal feet/minute
Engine type	Electric or diesel
Horsepower (electric)	50 HP, 75 HP or 100HP
Horsepower (diesel)	185 HP
Auxiliary Power	50 HP

FEATURES

25' trough-type infeed conveyor with track type chain and hydraulic drive
25' trough-type outfeed conveyor with WD-110 chain, hydraulic drive and one set of manually operated 3-arm kickers
Front yoke set at 10°
Hydraulic shoe for bark removal depth
Hydraulic top wheel and back wheel adjustable to log diameter
Hydraulic spiral control for debarking speed

Table lock assembly

OPTIONS

Longer or shorter infeed with 13" track type chain
Longer or shorter outfeed with WD-110 chain
25' trough outfeed conveyor with 19" track type chain in lieu of standard
25' trough infeed conveyor with 19" track type chain in lieu of standard
Longer or shorter infeed and outfeed conveyors with 19" track chain
10,000 Series conveyor drive in lieu of standard
13" x 3/4" UHMW Duralite wear strip for infeed and outfeed conveyors
19" x 3/4" UHMW Duralite wear strip for infeed and outfeed conveyors
Hydraulic oil temperature and level control
Hydraulic oil tank heater
All weather operator's cab. Cab is 54" wide x 58" x long x 6'8"tall and includes two side sliding windows for cross ventilation
Side mounted combination air conditioner/heater unit for cab enclosure
Heavy duty underneath bark auger
Hoses are provided to position operator's console approximately 4' from the debarker center section. Cab positions requiring longer hoses.

MORBARK, INC
WINN, MICHIGAN
800-831-0042 989-866-2381
www.morbark.com

PROVEN IN OVER 550 SAWMILLS, CHIPMILLS AND BOARDMILLS

THE NICHOLSON A5B

The Nicholson A5B is the third generation of tough, simple and fully automatic highspeed debarkers developed from the original Nicholson A5 Debarker design.

The A5B incorporates all of the hundreds of engineering developments made over the life of the highly successful A5 and A5A series, and adds important new features like improved feed works cylinder locations, a new compact low mounted direct feedworks drive option, discrete/ automatic ring pressure control, a ring temperature console readout, central grease points and more.

PROVEN WORLDWIDE

A5 technology has been proven year after year in over550 (1998) sawmill, chipmill and boardmill installations around the globe. No other modern highspeed debarker can offer this level of worldwide testing, development and proven reliability. Do you need verifiable performance figures for your specific application before deciding on a debarker? We can offer you hundreds of real case histories, not just promises.

THE RING IS THE THING

Of the many ways to debark logs, including drums, rosserheads and flails, only the Nicholson A5B ring debarker gives you clean debarking, high production and advanced fiber saving technology. Using a rotating ring, the A5B smoothly separates the bark from the log at the cambium layer without removing valuable fiber.

SMALLER MEANS FASTER Highspeed debarking is the key to profitability. Log supplies today are often smaller diameter material. You must now process more logs. For example, it takes twenty-five 6-inch diameter logs to equal the gross wood volume of a single 30-inch diameter log.

Those twenty-five 6-inch logs have five times more bark surface area than the single 30-inch log, so you have to debark faster and cleaner.

SPEED & QUALITY OPTIMIZED Nicholson has been the first to provide clean fiber-saving debarking at high feed speeds. We offer systems that combine log-diameter-sensing knife arm pres sure control, diameter-variable feed speeds, diameter-variable ring speeds, special arms and tips, and other technological innovations to give you the very finest highspeed debarking available today.

TERRIFIC VERSATILITY The A5B is extremely versatile. Its rugged and compact single unit design is perfect for tight installations, retrofits and portable applications.

The A5B is fully automatic and will debark logs of almost any species or configuration. The A5B is available in five ring sizes from 12 to 35 inches (305 to 889 mm) that completely cover the world of highspeed debarking.

TOUGH, SIMPLE & SAFE

The A5B uses simple, rugged and thoroughly proven mechanical technology. Special design features like pullout rings, easy to access central lube sites, gear/ roll position locks and interlocked access doors make service quick and safe.

POSITIVE FEEDWORKS

Simple fixed infeed conveyors with v-type rolls are used to feed the A5B. Nicholson auxiliary feedworks are available but not generally needed.

Specially designed self-feeding and self-opening powered feedrolls are linked in pairs to automatically acquire and center the incoming log. Log gripping force is provided by powerful air cylinders located inside the debarker for protection from dirt, damage and debris.

Automatic roll pressure timing is used to provide both easy log entry and firm log capture. Two basic types of roll pressure timing are used depending on the application: Open Roll Control and Dual Pressure Roll Control.

RELIABLE GEAR DRIVE

The A5B's smooth and quiet feedworks are driven by precision machined steel spur gears for maximum reliability.

Continuous automatic gear lubrication is provided by a separate pump and reservoir so low cost gear oil can be used instead of debarker ring oil. Both gear and ring lube systems have fail-safe protection.

The feedworks can be powered by a wide array of single or variable speed AC electric motors. Both the standard top mounted feedworks drive and an optional bottom mounted low profile direct drive are available.

RING MODULES

The ring and ring drive are an independent module. The module slides out of the debarker to provide fast and safe ring maintenance. You can quickly remove and replace it with modules carrying different ring types and sizes.

CHOOSE YOUR RING

One ring design can not provide optimum debarking in all of the applications that exist in the industry. That's why we offer four totally different ring types for the A5B.

AIR SEAL RING

The Nicholson External Link Bellows Air Seal Ring lets the operator open and close the knife arms and change arm pressure during debarking. This inherently cool running and proven design is extremely reliable in high speed operation.

The ring is designed specifically for superior debarking at high feed speeds. The ring's special low mass actuators and knife arms help the knife tip stay on the surface of the log at high speeds. The result is more bark removed and more valuable wood fiber saved for your products.

Use of reversible wear seal surfaces, cartridge type air seal design and long wearing cast iron seal rings reduces both the cost and time needed to rebuild the air seal. The entire air seal can be rebuilt on site in as little as 2 hours by mill staff. A step by step video of the process is available.

AIR CELL RING

The Nicholson External Link Bellows Air Cell Ring is a simple fixed pressure design. Pressure for all arms is manually adjusted at a single standard air fitting. The Air Cell Ring is very economical and easy to maintain. Portable installations that require minimum air consumption are great applications for this ring.

SPECIAL RINGS

Two special rings are available for the A5B; the patented* Stringy Bark Slitter Ring for processing difficult species like Cedar, Redwood and Eucalypt, and the adjustable Nicholson Flared Butt Reducer ring for quickly reducing flared butts. Reduced logs can be debarked by a standard size debarker and handled more efficiently in the mill.

KNIFE ARMS

Self opening Nicholson knife arms are fabricated from tough

A5B TANDEM RING DEBARKERS GIVE YOU EXTRA VERSATILITY

TANDEM A5B DEBARKER WITH BOTH RINGS PULLED OUT FOR SAFE AND CONVENIENT SERVICE ACCESS

alloy steel, making them much lighter and stronger than cast arms. All arms can be welded on site and have replaceable knife tips. Knife arm designs for special applications are available.

KNIFE TIPS

Several types of knife tips are also available. Each type of tip is optimized for a particular type of debarking and generally comes in several tip angles to adjust to varying log conditions. Nicholson even offers an economical and convenient tip exchange program.

A5B TANDEM DEBARKER

One of the most versatile A5B configurations is the tandem ring design. The tandem uses two in-line rings that can be used singularly or together.

The tandem provides the very highest feed rates with excellent bark removal, or the very cleanest debarking at higher than normal feed speeds. Tandem A5B Debarkers are also used extensively to debark burnt wood and difficult stringy bark species like Redwood, Cedar and Eucalypt.

A TRADITION OF PERFORMANCE, QUALITY AND SERVICE

Nicholson Industries has led the steady march of progress in debarker technology since 1948. The goal today is the same as in 1948: Be the First with the Best.

To achieve this high standard, we have invested in new manufacturing plants, expanded service and parts support, integrated computer design and manufacturing, robotic welding, in-house heat treating, special gear hobbing machinery and more.

A very large percentage of our new sales are to customers that already own Nicholson equipment. In some cases, reliance on Nicholson equipment goes back several generations.

Superior performance, quality and support keep them coming back.

To us, that is real success.

***Task 2. Retell the text.**

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***Task 3. Make the annotation to the text using a pattern**

1. I'd like to tell you about the_____,
that (witch) I've just read.
2. The title of the text is_____
3. The text is about_____
4. The author tells us about_____
5. In the very beginning the author tells about_____
6. As is clear from the text_____
7. According to the text _____
8. It's interesting to note_____
9. In conclusion the author tells about_____
10. At the end of the text_____
11. to my mind this text_____
12. It is necessary to mention that_____
13. I must say that_____
14. I think, that_____

Вывод по теме:

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_____

Рефлексия:

У меня получилось _____
Было трудно_____
Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 20
ТЕМА: «Дереворежущие инструменты»
«Woodcutting tools»

Task 1. Read and translate the first and second paragraphs of the text in writing.

Circular saws. Development of production technologies.

According to scientists, the first tools, which can be considered the ancestors of modern saws were produced over 4 thousand. Years ago. They were jagged stones that were used by ancient people in everyday life. Tools and technology of its manufacture have been perfected in the Bronze Age, with the advent of metal working skills.

The period from the rise of Christianity to its spread in Europe is characterized by the development of the basic crafts, in turn, has entailed the development of forms and structures handsaws, including two-handed (the so-called strip saws - a prototype frame and band saws), are mainly used in the construction of houses, temples, fortresses and ships. They have spread almost all over the world to compete with the ax. The most widely used saws received in areas where logging has evolved: bandpass two-handed saws used for felling trees, as well as for longitudinal cutting of logs and produce lumber.

The first mechanized sawmill, which facilitates the work of the woodcutter, was invented in 1322 in Germany. Constructed on the basis of the saw, driven by hydraulic mechanisms, equipment (the prototype of the chainsaw) have revolutionized the methods of deforestation in Germany.

Strip saws for felling eventually became widespread in England, Scotland and Portugal. As from the introduction of different types of equipment, their use was also a negative effect: chippers have become massively lose jobs, causing a serious social tension until revolts, during which the "innovations" destroyed. So, during this uprising in the United States suffered the first in the history of steam sawmill, a predecessor of today common chainsaws (based on chain saws).

A new stage in the construction of band saws (a prototype band saws) became converted from hydraulic to a steam sawmill, which was designed in the US city of Bass (Maine) in 1821. The first tool of this type is a steel strip with a plurality of teeth arranged along one edge of the tape. Saw constantly rotating in two vertical pulleys, the teeth are directed in the feeding direction sawn timber. The first such design drank patented the British in 1808, and in 1834 a patent for a blade of this type has been issued in France. The first American, patented band saw in 1836, he became B. Baker. Due to certain circumstances (in particular, due to the complexity of manufacturing equipment and the instability of its work, saws often slipped from pulleys and exploded due to overload.

The Russian sawmill (on the basis of water mills) received the mass distribution in the reign of Peter I in the construction of St. Petersburg and warships. Saws, mainly manual, first bought in Europe, but soon began to do in Russia. We introduced them among the peasants voluntarily-forcibly: take over immediately saw two rubles (then for the farmer it was a lot of money), and then demanded during its use even for pennies from the soul. Senate encouraged construction of saw mills. At the end of the XVIII century in the Vyatka province operated for more than forty sawmills. In the Urals, nearly all the iron works was prepared for the board itself mechanically. In the XIX century in Russia began to actively propagate steam sawmills. Ural plants - Zlatoust and Votkinsk (Votkinsk today) - began to produce various saws, mainly frame and round. Period of mass adoption in the sawmill industry circular saws can be considered the beginning - the middle of the XVIII century.

It is clear that not all but only the large, well-equipped European (as well as domestic) manufacturers perform all the items listed in the list of technological operations. Most often, when the blade is made in cooperation with several manufacturers, product quality suffers. Application of standard European tool steel instead of the original, typically proprietary, or their analogues, such as steel 75Cr1 (another name Krupp2003), produced according to DIN

17350, as well as cheap analogues known European manufacturers of steel, hard metal, solder and flux, and the use in the manufacture simple or worn manufacturing equipment may affect the quality of the products and their final cost.

In order to ensure high performance of the enterprise, specializing in the production of wood products, it is necessary to pay attention not only on the cost of the cutting tool, but then, where and by whom it was issued.

Saws with a step and a conical body made a little differently than a flat blade body: first cut round billet contour without teeth, which runs quenching and tempering the body, honing bore, surface grinding housing. Then the preform is milled (polished) step or taper. These operations are made to the housing of the flat blank to receive the tapered or stepped saw. The two stages are carried out in the event that a taper or step done on both sides of the saw housing. Then, the preform laser cut saw teeth and repeated surgery to remove the burr (burr) along the contour of the teeth, hardened and tempered blade housing. Further processing is carried out in accordance with the procedures set out in the list, since milling of mounting holes in the saw body and ending with packing and shipping saws to the warehouse. Stepped and conical blade pass quenching and tempering twice.

Task 2. Learn the words:

1. circular saws - круглая пила
2. to jagge- зарубать
3. strip - делянка, отводимая одному вальщику обладать
4. deforestation - корчевание леса
5. lumber - пиломатериалы
6. chainsaw - цепная пила
9. flux — течение; поток
10. cost - цена, стоимость
11. equipment – оборудование

Task 5. Read, translate and learn the following statements.

1. If you cut down a forest, it doesn't matter how many sawmills you have if there are no more trees. (Susan George)

2. Sadly, it's much easier to create a desert than a forest. (James Lovelock)

3. The death of the forest is the end of our life. (Dorothy Stang)

Task 6. Choose the proper word. Read and translate the following sentences.

1. The period from the rise of Christianity to its spread in Europe is characterized by the (resource, utilization, equipment, development).of the basic crafts .

2. It is clear that not all but only the large, well-equipped European manufacturers perform all the items listed in the list of technological (properties, operations, forests, resources).

3. As well as cheap analogues known European manufacturers of steel, (dependant, hard, soft) metal, solder and flux, and the use in the manufacture (hard, difficult, simple) or worn manufacturing equipment may affect the quality of the products and their final cost.

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 21
ТЕМА: «Оборудование для производства мебели»
« Equipment for production of furniture »

Task 1. Read and translate the text:

EDGEBANDING
TECHNOLOGY INSTEAD OF CRAFTS

Today, without edgebanding not do any furniture production - is an integral part of the process of manufacturing furniture. Processing sections when cutting chipboard is needed from both an aesthetic and practical point of view, because the plate edge facing not only gives the product a presentable appearance, but also protects it from chipping, moisture and other damage, hence, increases the lifetime of the furniture.

Every year edgebanding technology goes out to all higher level in terms of new materials and the improvement of the production process.

Standard edgebanding process includes the following steps: applying adhesive onto the edging material or preform, the direct bonding of the ends of the edge parts, Removing overhangs, corners processing.

On machines with hand feed some of the operations performed by employees of the enterprise, while the whole process is automated on automatic edge banding machines. Manually run only supply parts for the machine and removing the parts from the machine. Also, not all the machines installed unit for cornering.

Edge banding machines are usually distinguished by the type of workpiece: machines for edging straight blanks and / or curved workpieces. Straight edgebanding workpieces can be carried out immediately after cutting parts, processing non-rectangular parts manufactured on CNC machines to "krivolineyki" after the milling operations for the manufacture of curved parts. Large and complex parts except special manual edgebanding machine or a special automatic edge banding machines for curved parts.

Edge banding machines with manual feed

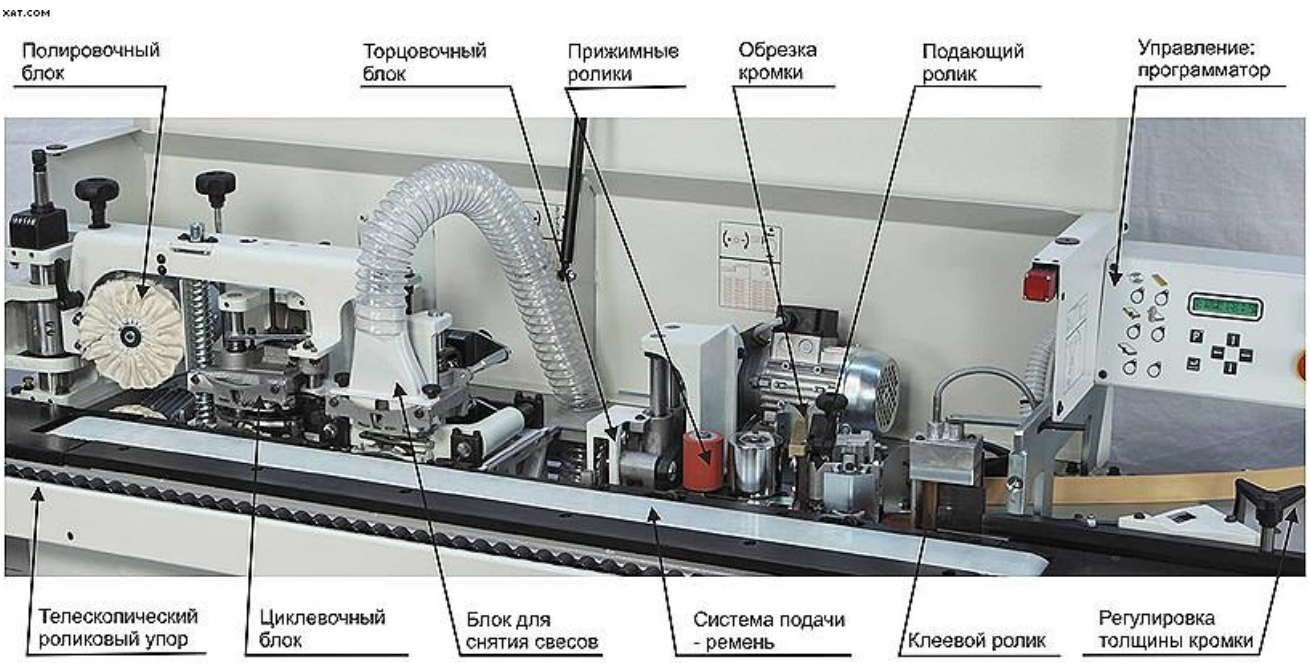
Structure and working principle of the simplest edge banding machines with manual feed standard. The design of this equipment includes the welded metal base frame with a table, a tank for heating kleyarasplava to drive the applicator roller.

The machines may be mounted hair dryer, which edge provides heat to increase its flexibility.

Next to the applicator roller is placed on the machine smooth rubberized pressure roller, the surface of which the plastic edge facing the front side and to which the operator manually presses veneering edge details. Clay always and in all machines of this type applied to the edge material stuck and not on the workpiece.

Feed roll edging material is carried by the drive roller. The knife is activated by the operator by pressing the foot pedal.

To accommodate the edges of the roll on the machine provides a special turntable.



Automatic working units edgebanders Ala 20 Plus (Casadei, Italy)

In addition to the edge banding machines with manual feed of the machine is usually installed to remove overhangs the edge material formed after wrapping edge seams on both parts. He also has a welded base frame with a table, on which the milling calipers with rollers. Workpiece with overhangs edging material is placed between the cutters. During milling parts movement mounted on the spindle motor supports, crushed and removed so that overhangs the edge of plastic. An example of the simplest edge banding machines are the machines of the German company Lange (model V500K and V560K) and the Italian company Vitap (Smart model, BC91A).

In a couple of this equipment just machines intended to remove the material overhang edge B600 (Lange) and RC91 (Vitap). Complement such set of machinery equipment for radial milling Q58 angles (Lange) and Rounder (Vitap).

Edge banding machines with manual feed are easy to manage, reliable and at the same low cost. It is essential "workhorse" for small businesses.

Automatic edge banding machines.

When growing volumes of production optimization workflow is possible when using automatic equipment. There are simple to manage automatic edge banding machines designed for the production of a small amount of finished parts and does not take up much space. For example, a one-sided automatic edge banding V70K (company Lange). But with kromochnikovavtomatov in large enterprises there is a need except rectilinear furniture parts in large volumes.

The processing overhangs on such equipment is fully automated. Multifunctional trimming unit performs lifting straight, radius and chamfer overhangs.

In step finishing copying machine performs the processing radiused corners. The use of flat cycle means the complete elimination of the need for manual completion panel.

Polishing unit performs the function of cleaning / polishing of finished parts. Machine control system must provide a rational installation and upgrade programs on the user interface.

Among the automatic edge banding machines of the middle class is to provide a machine of Italian zavodaizgotovitelya Casadei - Ala 20 models Plus, Ala 21 E, Ala 23 are especially in demand in the furniture enterprises of Russia. They are small and still powerful enough to perform the full range of work in medium and large industries.

Company HolzHer (Germany) offers a solution to automate the process of edgebanding - machines Auriga and Sprint series.

Being compact, with a total length of 3.5 m, Auriga machines (model 1303 1304 1306 1307) has a whole set of powerful aggregates. In addition, model Auriga Auriga 1304, and 1307 are equipped with unit prifugovki, and in packaging machines Auriga Auriga 1306, and 1307 also includes trimming unit obgonki angles.

Edge Sprint Series machines (models 1310, 1312, 1315, 1317, 1320, 1321) are suitable for both large factories with mass production, and companies working on individual orders.

There are also automatic edge banding machines for curved parts (for example, the machine from the Orbiter Vitap companies) - both small and large, including program management. table device allows you to work with individual templates for different shapes of workpieces.

In summary, it is worth noting that the choice of equipment investments should be made on the basis of an acceptable balance of cost and specifications of the machine.

Operating the machine with manual feed allows except straight and curved parts of any complexity, speeds up changeovers within a single workflow.

Kromochniki-machines have a high productivity, and provide flexibility to the process. They can be used in pipeline mode with the processing of workpieces on an industrial scale, thus due to such multifunctionality machinery easily adapted to the specific tasks of the particular production.

Вывод по теме:

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Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 22
ТЕМА: «Конструирование изделий из древесины»
«Wood's product engineering»

Task 1. Read and translate the text:

Конструирование изделий из древесины. Что такое конструирование?

Конструирование- это один из этапов создание изделия. Термин “конструкция” в переводе с латинского означает “устройство”. Конструирование является частью проектирование и будет необходимым элементом вашего будущего творческого проекта. Обычно конструирование начинают со зрительного представления изделий, со зрительного представления изделия, составления иго эскизов, технических рисунков, чертежей. Затем подбирают необходимые материалы. Далее изготавливают опытный образец изделия или само изделие, испытывают его на прочность и работоспособность, многократно дорабатывают с учетом недостатков до создания наилучшего изделия согласно его назначению.

HALF-TIMBERED HOUSES

Half-timbered houses, their blackened oak beams showing the fissures and cracks of great age, the floors tilting crazily askew, these images are a part of the charm of medieval and Tudor England for visitors. But what was half-timbering, and why were the buildings we marvel at today built this way?

Until the 17th century England was blessed with an abundant supply of oak, which was the most common material used for timber framing.

Oak is hard and durable, which in part explains why so many medieval half- timbered buildings have survived.

The term "half-timbering" refers to the fact that the logs were halved, or a least cut down to a square inner section. In other areas of Europe, such as Romania and Hungary, there was no comparable hard wood available, houses were more frequently constructed using whole logs.

Unlike modern framed buildings where the walls are installed outside and inside the frame, in half-timbered buildings the walls are filled in between the structural timbers.

Most commonly this infill was wattle-and-daub (upright branches interwoven by smaller branches and covered by a thick coat of clay mud), laths and plaster, or bricks.

A permiter footing of an impervious material like stone or brick was built first, and then a sill beam laid on the footing. Upright beams were mortised into the sill beam. Timber framed houses are essentially big boxes, with upper "boxes" (stories) set upon lower ones.

Often the upper floors project out over the lower ones. There are several conjectures as to the reasons for this. One is that houses in cities were taxed on the width of street frontage they used. So a high, narrow house saved the owner money, yet to maximize interior space the non-taxed upper floors were lengthened. Also, the projecting upper floors helped protect the lower house from rain and snow in the days before gutters and down-pipes.

The construction methods used in half-timbering allow buildings to be easily dis-assembled and put up again elsewhere. This has helped salvage houses which would otherwise have been destroyed to make way for new development. Many medieval timber-framed houses have been re-erected at open air museums such as the Weald and Downland Museum at Singleton, West Sussex, and the Avoncroft Museum of Buildings at Bromsgrove, Worcestershire.

By the 15th and 16th century timber framing began to be exploited for its decorative qualities. Timbers which had minimal structural importance were added to the frame, to enhance the decorative effect of dark wood set into whitewashed walls. The Jacobean period saw this use carried to extremes, such as in the photo shown here.

By the Jacobean period wood for timber framing was in short supply in England. For too many years wood had been used for building, heating, and for making charcoal.

Also, the great expansion of the British merchant fleet after the medieval period used up large quantities of wood. Finally, the introduction of cheap, easily available bricks after the Tudor period provided an attractive alternative to half-timbering.

By the way, the sloping, slanting, floors we see today in half-timbered buildings are not due to sloppy building practices, but a result of the natural warping of the wood as it aged. Also, the blackening of timbers was a natural aging effect. They were not treated or painted when built. It is only a desire of modem builders to provide a romanticised version of half-timbering that has produced imitation or black painted timbers.

Task 2. Remember the following words:

forestry -лесное хозяйство
forest division - лесничество
species - породы деревьев
spruce - ель
larch - лиственница
lime - липа
birch - берёза
round timber - круглый лес
conifer - хвойная порода, хвойное дерево
ash - ясень
animal breeding and hunting enterprise - зверопромхоз
fur — пушной зверь
forest utilization - лесопользование
seeds - семена
seedling - саженец
to process - перерабатывать
clear cutting - сплошная рубка
improvement felling - рубка ухода
timber - лес (заготавливаемый)
nursery - питомник
forest regeneration - лесовосстановление

CANADIAN HOMES INTERNATIONAL INC.

Canadian Homes International has entered the rapidly growing field of export construction projects, and from the start we have set ourselves apart from the competition.

Our experience in the development of high density residential construction, has given us both the knowledge and skills essential to the building of single farmly dwedings, condominiums, apartments and townhouses.

Our history in developing and building large commercial and industrial projects, has also provided us with the expertise required to build large structural wood and timber projects including recreational facilities, shopping malls and industrial buildings.

This wide diversity of project development and construction has enabled us to offer more to builders and developers than just the building materials needed for the construction of a project. We take pride in the fact that we are not simply a cqnsolidator-- who fills orders for materials, then ships them in containers to the job site. At Canadian Homes International, we begin by either developing plans (based on site specific information), or by adjusting existing plans to fit your needs. With the plans in hand, we quickly and accurately assess the materials required and provide you with a detailed quote.

All our bunding materials are of the highest quality including framing products, handcrafted windows, cabinetry, roofing and all other finishing materials. These quality materials ensure that your finished project is the best it can be.

Handcrafted windows, and carefidly budt cabinets meet the strictest of quality control standards, enhancing and beautifying the look of your finished project.

Once all the bulding materials have been assembled, they are containerized for shipment to the job site. Every individual piece is numbered and tagged, to ensure that everything arrives at the job site as planned.

Our work crews, which we offer in the construction of your project, are comprised of Canadian tradesmen, familiar with our product and design. Upon receipt of the container, these skilled craftsmen will quickly and efficiently construct your building.

Вывод по теме:

_____

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 23

ТЕМА: «Конструкция изделий из древесины»

« Product design »

Task 1. Read and translate the text:

Engineered wood products and an introduction to timber structural systems

There are limitations on the maximum cross-sectional size and lengths of sawn timber that can be used as a structural component due to the availability of log sizes and the presence of naturally occurring defects in the timber (see Timber Engineering Notebook No. 1).

These defects can be cut out and the timber reconstituted using engineered wood techniques such as finger jointing (Figure 1) to create longer lengths of timber of an assured strength grade, or laminating to form a homogeneous timber section. Combinations of timber or laminated sections with different materials such as wood-based boards or metal elements are used to create 'engineered wood products' (EWPs) whose maximum size is limited only by manufacturing, handling and transportation constraints.

In addition to engineered wood products, there are reconstituted board products which comprise smaller wood-based strands and fibres re-formed into panel products. These have structural applications but are also used extensively in the furniture-making and packaging industries. Types of timber structural systems and their applications are also introduced in this Notebook.

Engineered wood products

EWPs including glued laminated timber, finger joints, plywood, stressed skin panels, mechanically and adhesive bonded web beams and connectored and nail plated trusses, have been in existence for at least 40 years.

Recently, there have been significant developments in the range of EWPs for structural applications with materials such as laminated veneer lumber (LVL), parallel strand lumber (PSL), laminated strand lumber (LSL), prefabricated I-beams, metal web joists and 'massive' or cross-laminated timber (CLT) becoming more widely available.

These EWPs are typically manufactured by adhesively laminating together smaller softwood sections or laminates (e.g. glulam and CLT) or veneers or strands of timber (e.g. LVL, LSL and PSL). The varying performance of EWPs is influenced by the size of wood component used in the product. At one end of the spectrum smaller sections of timber are laminated and finger jointed to form sections of glulam, whilst at the other end, reconstituted board products such as oriented strand boards (OSBs) and medium density fibre boards (MDFs) use small wood strands or fibres bonded together (Table 1).

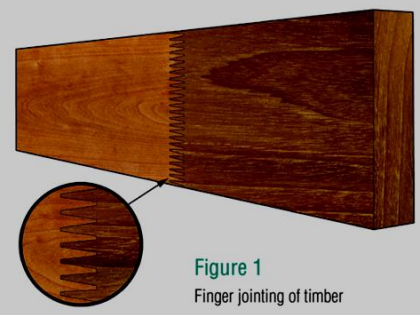


Figure 1
Finger jointing of timber

Table 1: Fibre size and beam types for timber products

Timber	Sawn timber sections As cut from the tree	
Engineered wood products (EWPs)	Finger jointed lengths of timber Fabricated from smaller lengths of timber to form a longer element length	
	Glulam and CLT Small sections typically 25-45mm thick glued together to form a bigger beam or slab section	
	Veneers e.g. LVL or plywood Typically 2-4mm thick wood glued together to form sections – both boards and beams	
Reconstituted board products	Strands e.g. OSB wood slices Glued together to form sections – both boards and beams	
	Wood fibres Bonded to form sections – more typically used for board products than beams e.g. particleboards and fibreboards	

DECREASING SIZE OF ORIGINAL WOOD MATERIAL

www.structuraltimber.co.uk

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 24
ТЕМА: «Корпусная мебель»
«Cabinet furniture»

Task 1. Read and translate the text:

CABINET FURNITURE

Many other kinds of timber might be mentioned, but to do so would serve no good purpose, as those already enumerated are the principal used incabmet-makin g. Speaking generally, every kind of timber may be used, but in practice very few are, and others which have not been specified are of such comparative unimportance that to find them infumitureis quite exceptional. There are certainly some which are used only as veneers, but they will be found mentioned elsewhere. Of course, I do not wish any reader to understand that no others than those named can be used forfuraiture; on the contrary, there are very many which are equally suitable, only they are either not obtainable regularly, or, what is much the same thing, their advantages have not been sufficiently recognised to lead to their general adoption. Thus there are the Kauri pine and other woods of New Zealand, many of which are admirably adapted forfumiture, but are only occasionally seen in this country. Therefore, if the reader finds any timber which he likes the look of, and it seems suitable, there is no reason why he should not use it.

Inpracticai handbooksit is often customary to say a good deal about the shipment and export marks or brands whereby the merchant can recognise certain kinds, and the reader may expect that something of the kind should be given here. I may as well explain that this is not a treatise on the timber trade, and that the cabinet-maker need not concern himself about such details, nor with the measurement of timber in the log. These concern the timber merchant and large consumer principally, so that the space at my disposal may be more appropriately occupied with such information as is likely to be useful to those for whom this book is primarily intended. What affects them as cabinetmakers will be found mentioned, it is hoped, with sufficient explicitness. For those who can use it in sufficient quantities, timber bought in the log will often be the cheapest, but the saving, unless there is considerable experience on the buyer's part, will be inconsiderable, and involve a good deal of trouble in getting the stuff cut up.

I may explain that 'stuff is the conventional or workshop word which is used when speaking of wood in a general sense, and though it may not be very elegant it is thoroughly well understood among cabinetmakers, so that there can be no objection to using it here. The buyer of logs must have them cut up at the sawmills, have the timber properly stacked, and then wait till it is ready for use, which will probably not be till many months have elapsed. All this involves a considerable amount of labour and loss of time, so that the small consumer will find it, on the whole, more to his advantage to get his stuff inusable quantity and workable condition as he wants it, even though he may have to pay a higher price. In every town of any size timber merchants or dealers will be found whosellthe timber in convenient sizes, and in such small quantities that the small consumer need not lay in a big stock. Of course, he must expect to pay rather more than the large buyer, but the difference wifi not amount to much.

It may be expected - I know it is by some amateurs - that some 'wrinkles' should be given by which the novice may pose as an experienced buyer, and so obtain what he wants at the lowest or wholesale prices. Well, all I can say to those who think thus is that it cannot be done. Want of knowledge cannot be concealed from those who know their business, whether this issellingtimber or anything else. The best way to avoid imposition is to buy from a respectable dealer, and by paying fair prices the purchaser will have no difficulty in getting good stuff. If he wants only the lowest priced, then he must not be disappointed if it does not turn out as well as he would like. The small consumer will, in the long run, gain nothing by buying mixed lots at a low figure, for there is sure to be a good deal ofwaste. The large consumer may occasionally find it to his advantage to do so, for what would bewasteto the other may come in for odds and ends.

When buying from a timber-yard, it is seldom that a piece will be cut of any special length that may be wanted. If it is the buyer must be prepared to pay a considerably increased

rate. Of course, retailers who lay themselves out to supply amateurs will do this, but their rates all round will be found comparatively high, though perhaps reasonable enough under the circumstances, for it must not beforgottenthat to cut to given lengths means inevitably a quantity of unsaleable short pieces left on the dealer's hands.

For these he must be compensated, and it will be found, in practice, better to buy a length, even though it may be more than required for immediate use, than toget just what may be wanted. Of course, if the timber is an exceptionally valuable one the case may be different, but the purchaser may be safely left to form his own judgment when this happens. In large towns, where there is a choice of dealers, it may be well to know that those yards where builders' timber is principally sold are not the best forfumiturewoods. Some dealers, in fact perhaps the majority,sellall kinds, but inLondon,

Liverpool, Glasgow, Birmingham, and other large centres, there are plenty of dealers who make a speciality offumiturewoods andsellit in small or retail quantities. If to be cut into particular thicknesses not in stock, they will undertake the sawing at very moderate prices,sellingthe piece selected, and charging a rate per foot for sawing. This will save the cabinetmaker a considerable amount of hard labour, which it would not pay him to incur, as the sawing is done at the mills by steam power. Those who live in country places where the better kinds offumiturewood, mahogany, walnut, etc, are not obtainable on the spot, can have it sent from one of the larger centres at very moderate rates for carriage, as the conveyance of timber is not costly. Pine and other common stuff can be got almost anywhere from builders' yards, though when he can do so it will be better for the user to deal direct with a timber merchant. The conditions of trade have so much altered of late years with the increase of transit facilities and the establishment of sawmills, that many of the difficulties which formerly stood in the way of the small consumer have been considerably reduced.

Task 2. Learn the words:

Office furniture

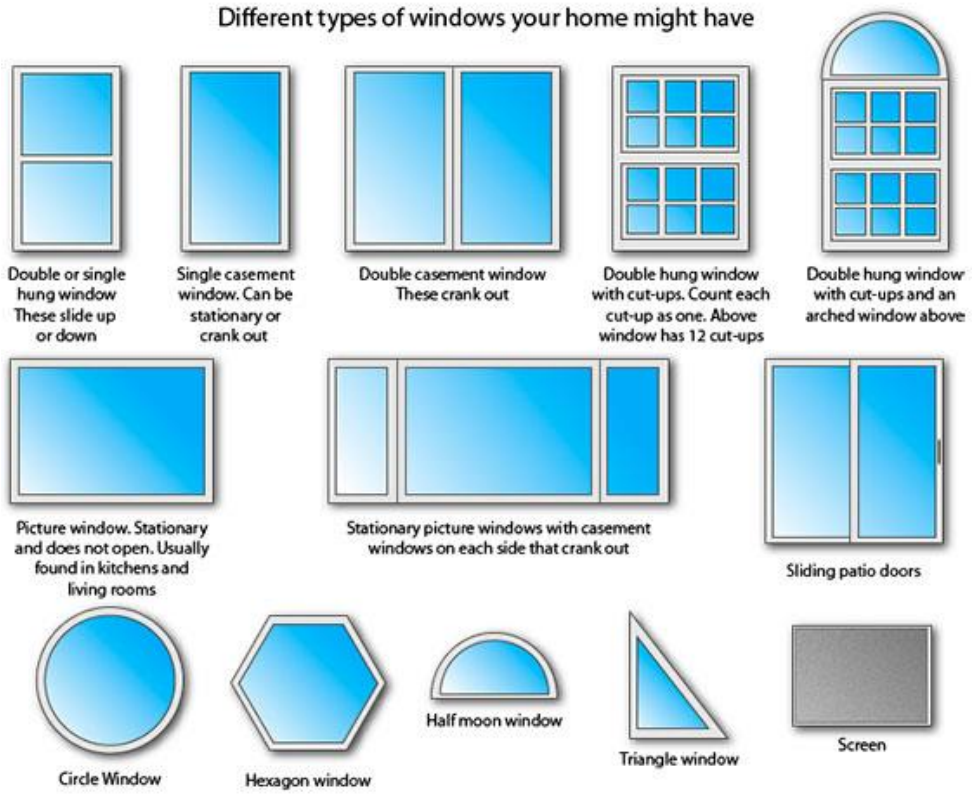
- Office chair – офисный стул / кресло
- Desk – письменный стол
- Filing cabinet – шкаф
- Bookshelf – книжная полка
- Table lamp – настольная лампа
- Coat wardrobe – шкаф для верхней одежды

18 названий офисных предметов на английском языке, которые должен знать каждый

Названия видов окон, которые могут быть в вашем доме

- Double / single hung window – двойное навесное окно
- Single casement window – одностворчатое окно (может быть глухим или открывающимся)
- Double casement window – окно с двумя створками

- Picture window – окно с глухой створкой
- Sliding patio doors – раздвижные двери внутреннего дворика
- Circle window – круглое окно
- Hexagon window – шестигранное окно
- Half moon window – окно-полумесяц
- Triangle window – треугольное окно
- Screen – ветровое стекло, экран



Разновидности кроватей по-английски

- Cradle – колыбель
- Cot / crib – детская кроватка
- Travel cot – «дорожная» детская кроватка
- Divan – диван
- Four-posterbed – кровать с балдахином
- Futon – футон (японский матрас для сна)
- Single bed – односпальная кровать
- Bunk beds – двухъярусные кровати
- Sofa bed – диван-кровать
- Camp bed (cot) / sleeping bag – легкая походная кровать / спальный мешок
- Airbed/ air mattress – надувная кровать / матрас
- Hammock – гамак

Виды стульев на английском

- Chair – стул
- Armchair – кресло
- Rocking chair – кресло-качалка
- Stool – табурет
- Car seat – автомобильное кресло
- Wheelchair – инвалидное кресло
- Swivel chair – вращающийся стул
- Deckchair – шезлонг
- Chaise longue – лежак
- Lounger/ recliner – кресло для отдыха
- High chair – детский стул
- Director’s chair – режиссерское кресло
- Bench – скамейка
- Sofa – диван, софа

Предметы и мебель ванной комнаты

- Wash tube – ванна
- Wash basin – умывальник
- WC (water closet) – туалет
- Toilet paper – туалетная бумага
- Toilet paper holder – держатель для туалетной бумаги
- Liquid soap – жидкое мыло
- Soap – мыло
- Soap holder – мыльница
- Towel – полотенце
- Shower stall – душевая кабина
- Faucet – кран
- Dustpan & broom – совок и веник
- Cleaning tools – моющие средства

Task 5. Read, translate and learn the following sayings.

- East or West, home is best.
- There is no place like home.
- The wider we roam, the welcomer home.

_____
_____
_____
_____

Вывод по теме:

_____
_____
_____
_____

Рефлексия:

У меня получилось_____
Было трудно_____
Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 25
ТЕМА: «Столярные изделия»
« Joiner's products»

Task 1. Read the text and write out new words in the specialty

JOINER'S PRODUCTS

Joiner's products from wood make the following main types: elements of doors, windows, partitions and panels (panel board, panelled, deaf and glazed) for residential buildings and a collar for industrial buildings (oar, open, suspended and motionless, warmed and not warmed). From wood of coniferous breeds produce joiner's products, and from deciduous (a beech (бук), a birch, etc.) — only inside doors and transoms for rooms with relative humidity of air no more than 70%. Production of panel board doors, joiner's partitions and panels (internal filling) make from waste of sawing, woodworking and plywood production. Window covers can also be produced from glued preparations on waterproof glues.

Recently the waste product of insulating fiber boards is applied as fillers for production of hollow panel board doors. The pressed strips provide necessary rigidity of door cloths.

Doors with more plain front surfaces receive when using of the combined filler from solid and friable materials. As solid material use wooden bars, and friable material — strips from insulating fiber board which width is 3...4 mm more than filler width from solid materials. Glue is applied only on solid fillers. The remolded friable material interferes with a yielding of a facing layer and allows receiving plain front surfaces of hollow panel board doors.

Along with monophonic coloring of panel board doors produce also doors with finishing by imitating textural paper. For production of the last on the smooth surface of fiber board paste the sheet of paper on which the drawing reproducing texture of natural wood of valuable breeds is printed.

For prevention of raying of texture of a plate and creation of necessary tone of coloring under textural paper put the tinting paper. Between fiber board and pro-masonry paper and also between the last and textural paper for their pasting place pitch films. Cover with the same finishing film textural paper from above. The finishing film is necessary for receiving a strong and brilliant surface of a product. The collected package is stacked on the polished laying with a smooth surface and pressed in a hot press where under the influence of high temperature of a film melt, and then harden. Such plate has the high hardness and firmness. The domestic industry makes a big variety of door blocks for residential and public buildings. Door intra room blocks of the D2 and D4 types (a panel board design) consist of a door cloth and a box. The cloth represents the panel board design consisting of the frame collected from bars, and cellular paper filler. The cloth is veneered from two parties with solid fiber boards and can be painted by various enamels or is veneered with planed plywood of hard-wooded broadleaved breeds with finishing by varnish Details of a box and frame of a cloth produce from wood of coniferous breeds. The door intra room D3 block represents the glazed block of a panel board design. As filler apply solid fiber board in which cut out an aperture under glass. Produce also entrance doors from a staircase external door blocks and other products for residential and public buildings.

The single deaf door block is intended for filling of a doorway in buildings of public appointment. The door cloth is produced from coniferous breeds of wood, pasted over with glued plywood, veneered with a birch interline interval and covered with polyester enamel. Door edges are faced with a fillet of hard-wooded broadleaved breeds. The door box is veneered with a birch interline interval and trimmed with nitro enamel.

Broad application in housing construction is found by parquet boards for flooring. The parquet board consists of the lower rack basis and the top front covering. As material for the basis serve laths from low-grade timber of coniferous breeds, for a front covering — thin levels of strong deciduous breeds (an oak, an ash-tree, a beech). The panel board art parquet is applied to flooring in public buildings. The sizes of boards — from 750X750 to 1200X1200 mm. For a

front covering use an ash-tree, an oak, mahogany. The basis for panel board parquet is produced from wood of coniferous breeds. From the face the parquet is processed special varnish.

Task 2. Translate the sentences with these words:

Вывод по теме:

Рефлексия:

У меня получилось

Было трудно

Интересно

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 26
ТЕМА: «Мягкая мебель»
« Seating furniture»

Task 1. Read and translate the texts:

WHAT IS CABINET FURNITURE?

Cabinet furniture is so popular that it is difficult even to imagine the apartment without her. Cabinet furniture is understood as the furniture consisting of separate rigid parts. Connecting, separate parts of cabinet furniture, form an integral design — the case. For example, cases, dressers, bedside tables, tables, kitchens, walls — all of them belong to cabinet furniture.

Sofas, chairs, padded stools don't belong to cabinet furniture. Since the mattress is their cornerstone. Similar furniture carries the name "upholstered furniture". To one their most important advantages of cabinet furniture it is possible to carry an opportunity to change her arrangement within the apartment. Unlike the built-in furniture, cabinet furniture is more mobile. She can be transported, transferred freely from place to place. Cabinet furniture is less tied to the apartment while the built-in furniture is established taking into account specific room features.

Seating furniture.

Seating furniture is the collective name of comfortable furniture products for the sitting and lying having a soft element. This furniture includes: sofa beds, sofas, chair-beds, chairs for rest, couches, ottomans, benches, banquettes.

Main components and materials.

The framework performs the bearing function, gives the main silhouette of upholstered furniture. The materials used for production of a framework: massive wood, plywood, chipboard, fibreboard.

The soft element promotes obtaining certain softness in products. Sintepon, polyurethane foam - (foam rubber), etc. is generally formed by spring blocks, elastic belts, flooring materials).

Facing covers details of upholstered furniture for the purpose of change of their appearance and improvement of properties. It is generally presented by upholstery fabrics, natural and artificial leather.

The transformation mechanism allows transforming upholstered furniture from the compact place for sitting to a berth and back.

Main types of modern mechanisms of transformation: "Book", Evroknizhka, "Klik-klak", "Forward folding", "Accordion", "The French folding bed", Spartak, "Puma", "Telescope", "Dolphin", "Tick-tock", "Sedalift", Dionysus.

Task 2. Write out new words and learn thems:

_____

_____

_____

_____

Task 3. Fill the blanks with the words from the text.

1. Sofas, chairs, ...stools don't belong to cabinet furniture.
2. To one their most important .....of cabinet furniture it is possible to carry an opportunity to change her..... within the apartment.
3. The materials .....for production of a framework:..... wood, plywood, chipboard, fibreboard.
4. The transformation mechanism allows transforming .....furniture from the compact place for .....to a berth and back.

Вывод по теме:

_____

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 27

ТЕМА: «Контрольная работа № 2»

Вариант 1

1. Choose the right variant.

1. _____ is a broadleaved deciduous hardwood tree of the genus Betula in the family Betulaceae.

a. cedar
b. birch
c. pine
d. larch

2. _____ is a tree or shrub in the genus Quercus of which about 600 species exist.

a. oak
b. birch
c. cedar
d. lime

2. Translate the sentences.

1. Extracts of birch are used for flavoring or leather oil, and in cosmetics such as soap or shampoo and also for medicinal purposes.

_____

_____

2. The higher density of oak gives the drum a brighter and louder tone compared to traditional drum materials such as maple and birch.

_____

_____

3. Write the English equivalents for:

Верхушка, запах, опыление, жёлудь.

_____

4. Open the brackets. Put the verb in the correct form.

1. Larch is a wood (value) for its tough, waterproof and durable qualities.

a. values
b. have valued
c. valued
d. valuing

2. Oak (arrange) spirally leaves, with a lobed ; line-height: 100%">

a. arranges
b. have arranged
c. arranged
d. arranging

5. Fill in the gaps:

1. Wood drying reduces the _____ of wood before its use.

a. Woodworking c. shrinkage
b. Moisture content d. swelling

2. _____ may occur in wood when the moisture content is changed.

a. Swelling
b. shrinkage

c. Hardwood
d. softwood
3. Methods of drying timber are: _____.
a. Air-drying
b. hardwood
c. Softwood
d. kiln-drying
10. The equilibration must be controlled to prevent damage to the _____.
a. Kiln
b. woodworking
c. Wood
d. moisture.

Вариант 2

1. Choose the right variant.

1. _____ is a conifer in the genus Larix, in the family Pinaceae.
a. lime
b. pine
c. cedar
d. larch
2. _____ is a genus of coniferous trees in the plant family Pinaceae.
a. oak
b. larch
c. cedar
d. birch

2. Translate the sentences.

1. Cedar wood and cedar oil are known to be a natural repellent to moths.

_____

2. The emerald ash borer is a wood-boring beetle accidentally introduced to North America from eastern Asia via solid wood packing material in the late 1980s to early 1990s.

_____

_____

3. Write the English equivalents for:

Род, плесень, шишка, садоводство.

_____

4. Open the brackets. Put the verb in the correct form.

1. Cedar woods (to be) native to the mountains of the western Himalayas.
a. to be
b. are
c. is
d. am
2. It (contain) 45-65 species of usually medium to large trees.
a. contains
b. have contained
c. contained
d. ha contained

5. Fill in the gaps:

1. _____ is the drying of timber by exposing it to the air.
a. Air-drying
b. kiln-drying
c. Soft-drying
d. hard-drying
2. _____ is a process of impregnating wood with special substances.

a. Shrinkage
b. circulation
c. Swelling
d. impregnation
3. There are two main reasons for drying wood:_____.
a. Compressing
b. wood burning
c. Woodworking
d. hardening
4. The equilibration must be controlled to prevent damage to the _____.
a. Kiln
b. woodworking
c. Wood
d. moisture.

Вариант 3

1. Choose the right variant.

1. _____ is a genus of flowering plants in the olive and lilac family.
a. oak
b. pine
c. silver fir
d. ash
2. _____ is a tree native to the mountains of Europe.
a. oak c. pine
b. silver fir d. ash

2. Translate the sentences.

1. Silver fir is a large evergreen coniferous tree growing to 40-50 meters tall and with a trunk diameter of up 1.5 meters.

_____

2. The cloth is veneered from two parties with solid fiber boards and can be painted by various enamels.

_____

3. Write the English equivalents for:

Верхушка, плесень, канадская ель, листва.

_____

4. Open the brackets. Put the verb in the correct form.

1. It (contain) 45-65 species of usually medium to large trees.
a. contains
b. have contained
c. contained
d. containing
2. The buds from early (grow) full by midsummer.
a. grows
b. is grown
c. grew
d. are grown

5. Fill in the gaps:

1. Wood is used for _____ in the workshops.
a. Wood material
b. woodworking
c. Softwood
d. hardwood
2. There are two types of wood: _____

a. Softwood
b. woodworking
c. Wood material
d. hardwood

3. The process of _____ consists basically of introducing heat.

a. Air-drying
b. kiln-drying
c. Soft-drying
d. hard-drying

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 28
ТЕМА: «Деревообрабатывающие предприятия»
«Woodworking enterprises»

Task 1. Read and translate the text:

ONEGA SAWMILLS

Onega Sawmills

Sawmilling is the main activity, due to which Onega, Arhangelsk region has been appeared. Mast timber grown on the shores of the White Sea began being exported under the ruling of Ivan the Terrible, and sawmilling arose on the banks of Onega already in the second half of the 18th century. The first saw mills appeared on the rivers Ponga and Anda, and Onega became the birthplace of the timber export in the North.

Onega had 5 sawmills and the Wolhof Forestry Exchange by 1914. On July 17, 1921 Onega sawmills had entered Severoles Trust, and from November 1, 1923, they were transferred to the company Rusnorvegoles.

In August 1957 Onega Sawmills was established (in the structure of sawmills No. 32, 33, 34 and the hydrolysis plant).

Onega Sawmills JSC was established in 1992.

The products of the enterprise have been known under the labeling of ONEGA in all countries since 1997, where the plant has ever supplied sawn timber.

Onega Sawmills JSC produces 180 thousand cubic meters of sawn timber of Scandinavian sorting and 146 thousand tons of technological chips per year. Edged sawn wood is produced from spruce and pine timber, dried to transport (20-22%) moisture and supplied for export. The mill's products are certified according to international environmental standards.

In 2012 the modernization project of Onega Sawmills JSC was given priority status in the field of forest development.

Since 2014, Onega Sawmills JSC has been a part of Segezha Group of Sistema JSFC Corporation.

Task 2. Find the underlined words in the dictionaty and learn them.

_____

_____

_____

Task 3. Find the English equivalents in the text.

лесопильный завод, распиловочный станок, лесопиление, перемещение, маркировка, щепка

_____

_____

Вывод по теме:

_____

_____

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

ПРАКТИЧЕСКОЕ ЗАНЯТИЕ № 29
ТЕМА: «Деревообрабатывающие предприятия»
« Sawmills»

Task 1. Read and translate the text:

GASSINSKI MODEL FOREST

Forest and resource profile

There are approximately 20 villages and two towns located in the Gassinski Model Forest (GMF) area, which is situated in the Amur River valley on the western edge of the Sikhote Alin mountains. In easily accessible areas, the region's forests have suffered from over-harvesting and wildfires, however, valuable stands of ash, elm, birch, oak, fir, larch, and other species remain. In upper elevations, there are highly valuable stands of Korean pine, which are protected and being reintroduced throughout the area. One-third of the population is indigenous Nanai or Udege. Lowland areas include a mixture of wetland, pasture, and hardwood forests. Highland areas are mixed forest.

The GMF landscape is made up mostly of plain wetlands (70%) and mountains (30%). Of this, the National park "Aniuiski" covers about 49% of the GMF site and includes protected territories, such as that of endangered Siberian tigers (11%) and forest lands previously announced as those traditionally used by indigenous peoples (24% of the Park area).

Economic profile

There is high unemployment in the area. Forestry is the dominant economic activity, but it has suffered from a lack of investment, poor practices, low prices and problems associated with Russia's transition to a market-based economy.

Other important economic sectors include fisheries (salmon), non-timber forest products (birch sap, ferns, mushrooms, cedar-pine nuts, and berries) and hunting (particularly important for indigenous people). Value-added wood processing is increasingly seen as a viable way to revive the local economy.

Why a Model Forest?

Improving the health of tree stands, forest protection, wildlife conservation, improving the monitoring and reporting of resource conditions, integrating natural resource disciplines into an improved management regime and maximizing the forest's economic benefits for the local population on a sustainable basis are priority concerns in the Russian Far East.

As a member of the IMFN, the GMF hopes to increase its sphere of influence in setting forest policy, and expand its communication ties and cooperation with other Model Forests worldwide. An open exchange of experiences and knowledge will help further the propagation and implementation of the Model Forest approach to SFM and biodiversity conservation.

Partners

- Government agencies (8%)
- Academia-educational institutes and universities, research and designing institutions (25%)
- Forest stockholders (57%)
- NGOs (10%)

Strategic goals

- To promote the economic and social development of indigenous communities
- To promote the conservation of biodiversity, and the protection of rare and endangered species
- To achieve and support SFM through decision-making processes that take into account the interests of the local people living in and around the Gassinski Model Forest, and which are based on monitoring of the condition of forest and water ecosystems
- To promote environmental knowledge among forest specialists, students and academia

- To conduct and support forest research for SFM
- To monitor local level indicators (LLI) and provide the information to the public

Accomplishments to date

- Drafting and adopting a long-term sustainable economic development strategy for the Model Forest region
- Mitigating conflict between indigenous Nanai, forest users and state forestry officials
- Creating an effective, cross-disciplinary partnership
- Attracting additional resources from foundations and other aid agencies
- Participating in the World Wildlife Fund (WWF) certification initiative
- Increasing employment for the indigenous Nanai people from 20 to more than 60%
- Training and development of a value-added wood processing industry

Resources

The Model Forest has published numerous works over the years, with subject areas ranging from forest fire fighting to water quality to eco-tourism. These publications are accessible to a wide range forest researchers and decision-makers.

Task 2. Learn the terms:

resource - ресурсы
profile - копировать, исследование
approximately- около
indigenous -местный
previously - в прошлые годы
announced- заявленный
value-added - обоснованный
cross-disciplinary- междисциплинарный

Task 3. Fill in the gaps with adjectives using the text.

There is ..... unemployment in the area.

Other .....economic sectors include fisheries (salmon), non-timber forest products (birch sap, ferns, mushrooms, cedar-pine nuts, and berries) and hunting (particularly important for..... people).

Value-added..... processing is increasingly seen as a viable way to revive the..... economy.

Drafting and adopting a long-term sustainable .....development strategy for the Model Forest region

Increasing employment for the .....Nanai people from 20 to more than 60%

Task 4. Write out from the text phrases, corresponding to following
Области низменности включают смесь заболоченного места
Task 5. Answer the questions to the text.

Task 6. Retell the text.

_____
_____
_____
_____
_____
_____

Вывод по теме:

Рефлексия:

У меня получилось_____

Было трудно_____

Интересно_____

Итоговое обобщение:

Вы познакомились с основами организации технологического и производственного процессов, с технологическим оборудованием деревообрабатывающего производства, материалами, используемыми в деревообработке на английском языке, закрепили и активизировали языковой и речевой материал, автоматизировали лексико-грамматические навыки, развили умения в чтении и письменной речи.

Используя полученные знания, составьте статью для журнала об организации технологического и производственного процессов, с применением технологического оборудования деревообрабатывающего производства на предприятии одной из англо-говорящих стран.

ГРАММАТИЧЕСКИЙ МАТЕРИАЛ

1. СЛОЖНОЕ ДОПОЛНЕНИЕ (COMPLEX OBJECT) В АНГЛИЙСКОМ ЯЗЫКЕ: ПРАВИЛО И ПРИМЕРЫ ПРЕДЛОЖЕНИЙ

1.1 Общие сведения

Сложное дополнение -это конструкция, состоящая из существительного в общем падеже (noun in a common case) или местоимения в объектном падеже (pronoun in an objective case) и инфинитива или причастия I. Напомним, как выглядят местоимения в объектном падеже:

- I – me
- you – you
- he – him
- she – her
- it – it
- we – us
- they – them

Давайте посмотрим, как на практике реализуется complex object **в английском языке** на примерах предложений:

We noticed the woman enter the house through the back door. — Мы заметили, как женщина вошла через заднюю дверь.

I saw them walk along the road. — Я видел, как они шли по дороге.

I did not hear her say this because she spoke in a soft voice. — Я не слышал, как она это сказала, потому что она говорила тихо.

Как видно из указанных предложений, complex object в английском языке переводится придаточным дополнительным предложением, вводимым союзами «как», «что», «чтобы». Существительное или местоимение в этом сложном дополнении соответствует подлежащему, а инфинитив – сказуемому придаточного предложения.

Complex object в английском языке имеет свои правила употребления, которые стоит рассмотреть. В основном, сложное дополнение в английском языке используется после некоторых глаголов, которые можно сгруппировать в определенные категории. Итак, complex object в английском языке употребляется с глаголами:

1. Выражающими физическое восприятие и ощущение to see – видеть, to watch – смотреть, to notice – замечать, to observe – наблюдать, to feel – чувствовать, to hear – слышать и другие.

После этих глаголов мы ставим инфинитив без частицы to.

I have never heard you sing. – Я никогда не слышал, чтобы ты пел.

We saw the postman slip a thick envelope into the box. – Мы видели, как почтальон опустил в почтовый ящик толстый конверт.

С глаголами восприятия помимо инфинитива может употребляться и причастие настоящего времени (Participle I). Если мы в complex object в английском языке применяем инфинитив, мы подчеркиваем однократность совершаемого действия или завершенность действия, если же берем причастие, то демонстрируем процесс протекания действия.

I saw her run into the house. – Я видела, как она забежала в дом.

I saw her running along the road. – Я видела, как она бежала по дороге.

К тому же, если глаголы see и hear используются в значении «знать» и «понимать» соответственно, мы не обращаемся к complex object на английском языке, а берем придаточное предложение:

I see that you are in low spirits. – Я вижу, что у тебя нет настроения.

2. Выражающими побуждение, принуждение: (to let – позволять, to make – заставлять, to have – распорядиться). Инфинитив также без to.

You can't make me do such things. – Ты не можешь заставить меня сделать это.

Never let him go. – Никогда не отпускай его.

They had the man do what they wanted. – Они заставили этого человека сделать то, что они хотели.

3. Выражающими желание и потребность (to want – хотеть, to wish / to desire – желать, to like – нравиться, should / would like – хотел бы).

He wanted his students to note the colours of animals. – Он хотел, чтобы его студенты отметили окрас животных.

The inspector would like you to explain everything to him. – Инспектор хотел бы, чтобы вы все ему объяснили.

4. Выражающими предположение (to expect – ожидать, рассчитывать; to suppose – полагать, to believe – считать, полагать; to consider / to find – считать).

Parents usually expect their children to be obedient. – Родители обычно рассчитывают, что их дети будут послушными.

We believe it to be the best way out of this situation. – Мы полагаем, что это будет лучший выход в данной ситуации.

5. Выражающими знание, осведомленность, утверждение (to know – знать, to think – думать, to state – констатировать, to note – отмечать, to report – сообщать и другие).

People knew him to be a great sculptor. – Люди знали, что он великий скульптор.

She thought him to be a qualified specialist. – Она думала, что он квалифицированный специалист.

6. Выражающими принуждение, приказ, разрешение или просьбу (to order – приказывать, to allow – разрешать, to forbid – запрещать и другие).

He ordered him to stop this conversation. – Он приказал ему прекратить этот разговор.

Как было видно из последних четырех пунктов, во всех случаях инфинитив употребляется с частицей to.

В принципе, это полная информация, которая касается complex object в английском языке. Есть еще один нюанс. Для этого языка характерно использование сложного дополнения с причастием прошедшего времени (Participle II). В такой конструкции обозначено, что не сам субъект выполняет действие, а кто-то другой делает это за него. Выглядит это следующим образом: to have one's hair cut (подстричься), to have one's eyes tested (проверить зрение), to have one's watch repaired (отдать часы в ремонт) и т.д.

Пример 1. I want **you to listen to me. (Я хочу, чтобы ты меня слушал.) (Не спешите при переводе, чтоб не было ошибки типа «Я хочу тебя…»)**

I want — пождежащее и сказуемое, это еще не Complex Object.

you to listen to me. — Complex Object (сложное дополнение)

you — **местоимение в объектном падеже (то есть в родительном падеже — Р.п.)**

to listen to me — **глагол в неопределенной форме** (с частицей **to)**

1.2. Упражнения "Сложное дополнение" (Complex object)

1. Раскройте скобки, используя сложное дополнение. Переведите.

1. I want (she) to be my wife.
2. My brother taught (I) to swim and dive.
3. They would like (we) to read aloud.
4. Bob advised (she) to stay for another week.
5. We expect (he) to arrive at noon.
6. I heard (you) open the door.
7. Dad always makes (I) go fishing with him every weekend.
8. Our parents expect (we) to stop quarreling.
9. Sara never lets (he) drive her car.
10. I saw (you) cross the street.

2. Поставьте «to» там, где необходимо.

1. We heard the lorry … stop near the house.
2. I want my elder sister … take me to the zoo.
3. I believe the Internet … be the greatest invention ever.
4. The teacher doesn't let us … use our mobile phones.
5. They didn't expect her … be late.
6. The police officer made him … tell the truth.
7. I would like you … admit your fault.
8. Swan believes Vicky … be the best manager in our store.
9. Nick persuaded me … go in for sports.
10. We saw Jacob … break the window.
11. I consider this sculpture … be a masterpiece.
12. She noticed Mary suddenly … turn pale.

3. Перефразируйте предложения, используя сложное дополнение.

Н-р: I want that she will cook mushroom soup. (Я хочу, чтобы она приготовила грибной суп.) – I want her to cook mushroom soup.

1. The children were laughing and enjoying themselves on the beach. Their parents saw them. – Their parents saw … .
2. They said: "He is an expert in our industry." – They consider … .
3. The bike disappeared in the forest. The policeman noticed it. – The policeman noticed ….
4. Elvis said to his son: "Don't watch horror films." – Elvis doesn't let … .
5. "Mummy, please, buy me that doll", said the little girl. – The little girl would like … .
6. Dad says that I can travel to China with you. – Dad allows … .
7. He swears a lot. Many people heard that. – Many people heard … .
8. "Bring me some water from the well," my grandmother said. – My grandmother wanted… .
9. Somebody was watching me. I felt that. – I felt … .
10. Daniel said: "Helen, you can go to a night club tonight." – Daniel let … .

2 СОЮЗЫ (THE CONJUNCTIONS) ЛЕКЦИЯ 2

2.1 Общие сведения

Союзы - это служебные слова, которые устанавливают связь между словами, словосочетаниями и частями предложения.

Союз — служебная часть речи, служащая для связи независимых равноправных единиц внутри простого предложения, а также для связи предложений между собою. В последнем случае, эта связь может быть связью равноправных единиц или ведущей и подчинённой единицы.

По своей форме союзы делятся на простые, производные, сложные и составные.

1) Простые союзы - это союзы, неразложимые на составные части: *and* - и, а; *but* - но; *or*- или; *if* - если; *that* - что и т.д.

2) Производные союзы – это союзы, состоящие из корня и префикса или суффикса: *because* - потому что; *unless* - если не, пока не, кроме и др.

3) В состав сложных союзов входит наречие *ever* или сочетание двух, реже трех союзов: *however* - однако; *whereas* - тогда как; *nevertheless* - тем не менее; *therefore* - поэтому и т.п.

4) Составные союзы представляют собой сочетание служебных слов со знаменательными: *in case* - в случае; *as though* - как если бы, как будто бы; *in order that* - для того чтобы и пр. К составным относятся также парные (соотносительные, двойные) союзы, состоящие из двух частей, разделенных другими словами: *both… and* - как... так и;

either... or - или... или; *neither…nor* - ни... ни; *not only… but also* - не только, ... но и; *whether… or* - или... или и др.

5) Имеется еще небольшая группа союзов, которые произошли от причастий и имеют форму причастий: *provided, providing* - при условии если; *seeing* - поскольку; *supposing* - если, в случае и т.д.

По своей функции в предложении союзы делятся на сочинительные (*Coordinating Conjunctions)* и подчинительные (*Subordinating Conjunctions*).

Сочинительные союзы соединяют однородные члены предложения, а также независимые предложения.

При помощи сочинительных союзов независимые предложения соединяются в одно сложносочиненное предложение:

I like apples and plums. - Я люблю яблоки и сливы.
My sister is only a pupil but she already can speak English well. - Моя сестра – еще ученица, но она уже может хорошо говорить по-английски.

Подчинительные союзы связывают придаточные предложения с главным, уточняя подчинительный характер между ними:

When she read a letter, she locked it in her desk. - Когда она прочла письмо, она заперла его в своем столе.
He knew that I should go with him if he asked me to. - Он знал, что я пойду с ним, если он меня пригласит.

Подчинительные союзы входят в состав придаточного предложения, за исключением некоторых составных союзов, которые входят в состав, как главного, так и придаточного предложения. Например, первая часть (*not so)* союза *not so… as* входит в состав главного предложения, а вторая часть (*as*) - в состав придаточного предложения:

The text was not so difficult as I expected. - Текст был не так труден, как я ожидал.

2.2 Значение союзов

2.2.1 Сочинительные союзы

Сочинительные союзы по значению делятся на следующие группы:

1) соединительные (*Copulative)*: *and* - в значении «и»; так же как; *as well as* - так же как; *nor* – так же не, и не; *neither…nor* - ни... ни; *but* (*also)* - не только... но (также) и; *both... and* - как, ...так и; и... и;

2) разделительные (*Disjunctive*): *or* - или; иначе; *either…or* - или … или;

3) противительные (*Adversative*): *and* в значении «а»; *but* - но; *still* - все же; *nevertheless* - тем не мене; *yet* - все же; тем не менее; *however, anyhow* - однако;

4) результата или следствия (*Regulative*): *hence* - следовательно; *so* - так что; итак; *thus*- таким образом; *therefore* - поэтому;

5) причины (*of reason)*: *for* - ибо; так как. При этом союз *for* вводит предложения, дающие дополнительные сведения, а не придаточные предложения причины:

It is morning already for (но не *because*) *the birds are singing.* – Уже утро, так как (но не: потому что) поют птицы.

Утро наступило не потому, что поют птицы, а пение птиц служит дополнительным указанием на то, что наступило утро.

Ниже следуют основные сочинительные союзы:

1. Соединительные:

And и

- The earth and other planets move around the sun and at the same time they rotate about their own axes too. - Земля и другие планеты движутся вокруг солнца, и в то же время они также вращаются вокруг собственной оси.

As well as так же как (и)

- A vector has direction as well as magnitude. - Вектор имеет направление, так же как и величину.

Nor также не, и не

- In gas the molecules will not get in each other's way, nor will they greatly attract or repel each other. - В газе молекулы не будут мешать друг другу и не будут сильно притягивать или отталкивать друг друга.

Neither ... nor ни ... ни

- Gases have neither size nor shape of their own. - У газов нет ни собственного размера, ии собственной формы.

not only ... but (also) не только, но (также) и

- Gases expand and contract not only when the temperature alters but also when the air pressure alters. - Газы расширяются и сжимаются не только, когда меняется температура, но также к когда меняется давление воздуха.

Both ... and и ... и, как ... так и

- Qauntities which have both magnitude and direction are vector quantities. -- Величины, которые имеют количественную величину, и направление, являются векторными величинами.

2. Противительные:

And а

- He would not listen to me, and I wanted to warn him. - Он не слушает меня, а я хотел предупредить его.

But но

- - В действительности изоляторы проводят ток, но их сопротивление очень велико.

Still, **nevertheless** все же, тем не менее

- The Fahrenheit scale is quite inconvenient, still (nevertheless) it is used in England and the USA. - Шкала Фаренгейта очень неудобна, все же (тем не мене) ею пользуются в Англии и США.

Yet все же, тем не менее

- The waters of the lake were deep, yet clear. - Воды озера были глубокими, тем не менее, прозрачными.

However однако

- In a number of battles Suvorov had fewer troops than the enemy, however he always won a victory. - В ряде сражений Суворов имел меньше войск, чем противник, однако он всегда одерживал победу.

3. Разделительные:

Or или, иначе

- Do you like warm or hot tee? - Ты любишь теплый или горячий чай?
- Hurry up or you will be late! - Поспешите, иначе вы опоздаете!

Either ... or или ... или

- We can use the same rotating machine either as a generator or as a motor. - Мы можем использовать ту же самую ротационную машину или как генератор, или как мотор.

2.2.2 Подчинительные союзы

Подчинительные союзы по значению делятся на следующие группы:

1) изъяснительные (*Objective, Subjective, Predicative): that* - что, который; *whether, if* – ли;

2) временные (*of time)*: *as soon as* - как только; *as long as*- пока; *as* - в то время как, по мере того как; *till, until* - до тех пор/пока; пока не; *before* - прежде чем; *after* - после того как; *when* - когда; *since* - с тех пор как; *while* - в то время как; когда; пока и т.д.;

3) причинные (*of reason or cause*): *as* -так как; *because* - потому что; *because of* - из-

за; *since* - поскольку; так как; *seeing* -поскольку;

4) целевые (*of purpose*): *that, in order to, so that* - чтобы; для того чтобы; *lest* - чтобы не;

5) условные (*of condition)*: *if* - если; *unless* - если не; *provided (that), providing (that)* - при условии что; *supposing (that)* - если; допустим, что; *once* - служит для подчеркивания условия, на русский язык обычно переводится словом «стоит»:

Once you hesitate you are lost. - Стоит вам заколебаться - и вы пропали.

6) уступительные (*Concessive)*: *although, though* - хотя;

7) образа действия (*of manner)*: *as* - как; *as if, as though* - как если бы, как будто;

8) сравнения (*of comparison*): *as* - как, *than* - чем; *as…as* - так(ой) же... как (и); *not so…as* - не так(ой)… как; *so... as* - так(ой)... как; *the... the* - чем... тем.

Двойной союз *the… the* с последующим прилагательным или наречием в сравнительной степени переводится на русский язык сочетанием «чем... тем» + соответствующее прилагательное/наречие в сравнительной степени.

Например: *the more... the less* - чем больше ... тем меньше; *the longer…the better* - чем длиннее ... тем лучше и т.д.

9) следствия (*of result)*: *that* - так/настолько ...что; *so that* - что; чтобы:

That you should come here is my idea. – Чтобы вы пришли сюда - это придумал я.

1. Изъяснительные:

That что, чтобы

- The legend says that without ravens the Tower will fall. – Легенды говорят, что без воронов Тауер бы пал.
- He suggested that we should hsve dinner, - Он предложил, чтобы мы пообедали.

Whether, If ли

- I don't know whether (if) he will come tonight. - Я не знаю, придет ли он сегодня вечером.

2. Временные

As soon as как только

- We shall go to the see as soon as the weather is changed. - Мы поедем на море, как только погода изменится.

As long as пока

- The average speed of all molecules remains the same as long as the temperature is constant. - Средняя скорость движения всех молекул остается одной и той же, пока сохраняется постоянная температура.

As в то время как, когда, по мере того как

- The doorbell rang just as I finished dressing. – В то время как я кончила одеваться, раздался звонок в дверь.

Till, until (до тех пор) пока (не)

- The tourists did not make camp till (until) it grew dark. - Туристы не разбивали лагеря, пока не стемнело.

Before прежде чем

- He knew that the father might catch tracks before they were covered with snow. - Он знал, что отец может обнаружить его следы, прежде чем они покроются снегом.

After после того как

- The elongation of the test specimen was measured after its broken ends had been put together. - Удивление испытываемого образца было измерено, после того как его сломанные концы были сложены вместе.

Since с тех пор как

- What have you been doing since you left our town? - Что вы делали с тех пор, как вы уехали из нашего города?

Directly как только

- Let me know directly he comes. - Дайте мне знать, как только придет.

When когда

- He was still asleep when the snow began to fall. - Он все еще спал, когда начал идти снег.

While в то время как, когда

- While I was doing my homework, my mother was making supper. - В то время как я делал домашнее задание, мама готовила ужин.

3. Причинные:

As так как

- As the day was clear, they decided to climb the mountain. - Так как день был ясный, они решили подняться на гору.

Because потому что

- I like this film because it is funny. - Мне нравиться этот фильм, потомучто он смешной.

Since поскольку, так как

- Since rubber is a non-conductor of electricity, it is used for insulation. - Поскольку резина не является проводником электричества, она используется для изоляции.

4. Целевые;

That, in order that, so that чтобы, для того чтобы

We shall stop here so that you can go shopping. – Мы остановимся здесь, для того чтобы вы смогли сходить за покупками.

I came in order to help you. - Я пришел, чтобы помочь тебе.

Lest чтобы не

- He wrote down the number lest he should forget it. - Он записал номер, чтобы не забыть его.

5. Условные:

If если

- If the answer is correct, you can keep the card. - Если ответ верный, вы можете оставить себе карту.

Unless если не

- Gases are characterized by extreme lightness unless they are highly compressed. - Газы характеризуются чрезвычайной легкостью, если они не находятся в состоянии сильного сжатия.

provided при условии что

- The volume of gas is proportional to its absolute temperature provided its pressure remains constant. - Объем газа пропорционален его абсолютной температуре, при условии что давление остается постоянным.

Supposing (that) если, допустим (что), предположим (что)

- Supposing two equal and opposite forces are applied to the body, will it remain in equilibrium? - Если (предположим что) две равные и противоположные силы приложены к телу, останется ли оно в равновесии?

6. Уступительные:

Though, although хотя

Though (although) there were vacant places in the periodic table, Mendeleyev predicted the properties of the missing elements.

- Хотя в периодической таблице были незаполненные места, Менделеев предсказал свойства отсутствующих элементов.

Союз *though* имеет всегда уступительное значение и может вводить как обособленный член предложения, так и однородные члены: *Though tired, we went on.*

7. Образа действия и сравнения:

а) Образа действия:

As как

- Maggie had not understood the appearance of this stranger as Tom had. - Мэгги поняла появление незнакомца иначе, чем Том (букв.: не поняла ... как Том).

As if, as though как если бы, как будто

- Flowers frozen in liquid air can be broken with a hammer as if they were made of glass. - Цветы, замороженные в жидком воздухе, могут быть разбиты молотком, как будто они сделаны из стекла.

б) Сравнения:

As как, **than** чем

As ... as так же (такой же) ... как (и)

- This film is as interesting as that one. – Этот фильм такой же интересный, как и тот фильм.

Not so ,.. as не так (такой) ... как

- The atr is not so cold now as it was in the early morning. - Сейчас воздух не такой холодный, как рано утром.

The ... the чем ... тем*

- The greater the molecular velocity, the higher is the temperature of the body. - Чем больше скорость молекул, тем выше температура тела.

* Двойной союз **the ... the** с последующим прилагательным или наречием в сравнительной степени переводится на русский язык сочетанием чем ... тем плюс соответствующее прилагательное или наречие в сравнительной степени, например:

- the more ... the less чем больше ... тем меньше
- the longer ... the better чем длиннее ... тем лучше и т. п.

8. Следствия:

So ... that так так (настолько) ... что

- With the increase of pressure the molecules get so close that they repel each other. - С увеличением давления молекулы настолько сближаются что они отталкивают друг друга.

So that так что

- The leaves of the trees were very dark and thick, so that no ray of light came through the branches. - Листья деревьев были очень темные и густые, так что ни один луч света не мог пробиться сквозь ветви.

2.3 Союзные слова

Союзные слова - это местоимения и местоименные наречия, которые используются в качестве подчинительных союзов. Обычно в качестве союзных слов выступают местоимения *who* -кто, который; *whose* - чей, которого; *what* - что; *which* - который, что; *that* - который и местоименные наречия *when* – когда; *where* - где, куда; *how* - как; *why* – почему. Отличие союзных слов от союзов состоит в том, что они не только присоединяют придаточное предложение к главному, но и являются членами придаточного предложения.

Например:

W. Shakespeare is the greatest writer whom England has ever known.	В. Шекспир – величайший писатель, какого когда-либо знала Англия.	*whom* присоединяет придаточное предложение, служит в нем дополнением
William Sydney Porter who is known under his pen name O'Henry is one of the best known writers of America.	Вильям Сидней Портер, который известен под псевдонимом О.Генри, - один из наиболее известных писателей Америки.	*who* присоединяет придаточное предло-жение, является подлежащим в нем.

In the years of stagnation when Alexander Solzhenitsyn was expelled from the USSR, he became a Nobel prize winner.	В годы застоя, когда Александр Солженицын был выслан из СССР, он стал лауреатом Нобелевской премии.	*when* присоединяет придаточное предложение, служит в нем обстоятельством времени.

2.4 Различение союзов, наречий и предлогов, совпадающих по форме

В английском языке некоторые союзы совпадают по форме с предлогами и наречиями. Такие союзы от предлогов и наречий можно отличить по их значению и по функции в предложении. Смотри таблицу 17.

Таблица 17 – Значение и функции союзов в предложении

I met him in 1983 and have not seen him since.	Я встретил его в 1983 г. и с тех пор не видел его.	*since* - наречие, т.к. является членом предложения, обстоятельством
He realised that the old life he had lived since boyhood was ended.	Он понял, что прежняя жизнь, какой он жил с детства, кончилась.	*since* - предлог, т.к. показывает отношение существительного к глаголу.
What have you been doing since you left our town?	Что вы делали с тех пор, как уехали из нашего города?	*since* - союз, т.к. присоединяет придаточное предложение к главному.
M. Lomonosov was a multitalented scientist the like of whom Russia had never known before.	М. Ломоносов был ученым, одаренным многими талантами, подобного которому Россия никогда не знала раньше.	*since* - наречие
He would sit brooding, his paper unread before him.	Он сидел, грустно размышляя, с непрочитанной газетой в руках (букв.: перед собой).	*before* - предлог
A tested specimen shrinks before an explosion takes place.	Испытываемый образец сжимается, перед тем как произойдет взрыв.	*before* - союз
I wanted to do it, but I couldn't.	Я хотел это сделать, но не мог.	*but* – союз
I men nobody there but him.	Я никого там не встретил, кроме него.	*but* - предлог

2.5 Упражнения по теме союзы

1 Определите роль союзов в следующих предложениях

1. I arrived in New York, where I was to change trains. 2. Mark Twain wrote many short stories and novels. 3. His father died when he was twelve and the boy had to find a job. 4. He arrived in our country in 1940 and stayed there till the war broke out. 5. That she has returned home is quite natural. 6. If these people knew who I was they would help me. 7. As I was saying this my friend's smiling face appeared at the door. 8. I was walking quietly so that nobody could hear. 9. He is as young as his brother.

2 Опустите, где возможно, союзные слова и относительные местоимения, соединяющие предложения

1. Tolstoy who is the world famous writer was born in 1828. 2. I know the girl with whom you have been dancing for two hours.

3. The car which they have bought is of the latest model. 4. Belarus goes by the time, which is three hours earlier than London's time. 5. The man whom you need has just left.

6. We usually go to the cinema which is round the corner. 7. The watch which you are looking at is wrong.

3 Соедините предложения, употребив соответствующие союзы и местоимения

1. My neighbour ... is a doctor has moved to a new flat. 2. Do you remember the day ... he arrived in Moscow? 3. Unfortunately, I can't remember the person ... I have borrowed the pen from. 4. The man ... you see at the desk is my secretary.

5. Where is the shop ... sellsgloves? 6. The book ... you have given to me is very interesting. 7. The shop ... we buy our food is closed. 8. Mother said to her son ... he must help her about the house.

4 Заполните пропуски союзами as ... as, not so ... as и переведите предложения на русский язык

1. This box is ... heavy ... that one. 2. The weather today is ... cold ... it was yesterday. 3. Is Text 10 ... difficult ... Text 9? — No, it is not. Text 10 is ... difficult ... Text 8. 4. Have you got ... many friends ... I have? 5. This year you don't work at your English ... much ... you can. 6. Is it ... easy to get up early in winter ... it is in summer? 7. Greek buildings were beautiful ... well ... useful. 8. Ancient Greeks ... well ... ancient Egyptians knew the art of building with cut stone. 9. Those decorations are ... beautiful ... these. 11. This street is ... wide ... the next one.

5 Заполните пропуски союзами either ... or, neither ... nor, both ... and. Переведите предложения на русский язык

1. We call this room "the hall" and use it ... as a sitting-room ... a living-room. 2. Chekhov is well known ... in our country ... abroad.

3. We saw ... you ... your friend at the party yesterday. 4. At the party they will ... dance ... listen to music. 5. You may have ... tea ... coffee. 6. If you go by tram you may be late for lessons. Take ... the underground ... a taxi.

7. ... Nick .... George were late for the lessons because they went by tram. 8. From the corridor you can get ... to the sitting-room ... to the study. 9. In the evening we .... watch TV ... read newspapers. 10. ... Tom ... Harry has much money.

6 Вставьте 1) or 2) to 3) but

a) Slowly----surely, my English got better' as I studied and practiced.

b) Sooner----later' I will have to buy a car. I can't go on getting taxies every day.

c) With Nick , it's always all----nothing. There are no compromises or half measures.

d) Do you realize you've got your sweater' on back----front?

e) She'll have to learn to sink----swim; she can't always depend on everyone else to solve her problems for her'.

7 Найди 21 слово, обозначающее союзы и переведи их

T	***H***	***E***	***R***	***E***	***F***	***O***	***R***	***E***	***A***
T	***H***	***O***	***W***	***B***	***E***	***T***	***F***	***A***	***N***
H	***O***	***W***	***N***	***U***	***R***	***B***	***O***	***L***	***D***
U	***W***	***H***	***E***	***T***	***H***	***E***	***R***	***T***	***T***
S	***E***	***I***	***S***	***I***	***N***	***C***	***E***	***H***	***H***
I	***V***	***L***	***Y***	***A***	***O***	***A***	***S***	***O***	***A***
F	***E***	***E***	***E***	***F***	***R***	***U***	***L***	***U***	***T***
O	***R***	***A***	***T***	***T***	***E***	***S***	***E***	***G***	***H***

8 Скажите, является ли подчеркнутый союз сочинительным или подчинительным

A. 1. Mary and Lena are good friends. 2. My room is high but it is nor large. 3. If you have any news ring me up. 4. We know that Ann can dance well. 5. My friend lives in the country and likes to work in the garden.

B. 1. I met him just as I turned round the corner. 2. The man walked slowly looking neither left, nor right. 3. Much was said both in favour and against our plan. 4. He called to see me before I had had breakfast. 5. Her face didn't show anything while he was saying this. 6.I was tired as I hadn't walked so long before. 7. The book was not interesting, so I didn't read it to the end.

3. СТРАДАТЕЛЬНЫЙ ЗАЛОГ(PASSIVE VOICE)

Пассивный (страдательный) залог показывает, что подлежащее выражает лицо или предмет, над которым совершается действие:

He is always asked many questions. - Ему всегда задают много вопросов.

В английском языке пассивная конструкция употребляется гораздо чаще, чем в русском, поэтому существует и больше способов её перевода на русский язык.

Способы перевода глаголов в пассивном залоге:

1) русским страдательным залогом или кратким страдательным причастием:

America was discovered by Columbus. - Америка (была) открыта Колумбом.

2) русским действительным залогом (чаше всего с обратным порядком слов, то есть с подлежащим в конце предложения):

America was discovered by Columbus. - Америку открыл Колумб.

Перевод "Колумб открыл Америку" был бы неверным, так как в нём смещён смысловой центр оригинала: важно сказать, кто открыл Америку, а не что открыл Колумб. В переводе "Колумб открыл Америку" как раз подчёркивается, что Колумб открыл именно Америку (а не Индию), в то время как перевод "Америку открыл Колумб" как раз делает акцент на том, что Америку открыл именно Колумб (а не Магеллан).

3) русскими возвратными глаголами:

The research was done a few years ago. -Это исследование проводилось несколько лет назад.

4) русским безличным предложением:

The research was done a few years ago. - Это исследование проводили несколько лет назад.

It was believed (thought, considered) that... - Думали (считали, полагали), что...

Предлоги, стоящие после английских глаголов в пассивном залоге, при переводе ставятся перед словом, которое в английском предложении выполняет функцию подлежащего:

This article is often referred to. - На эту статью часто ссылаются.

Their conclusions can be relied on. - На их выводы можно положиться.

Ряд" английских глаголов с предлогами переводиться русскими глаголами, после которых предлог не употребляется:

How is this phenomenon accounted for? - Как объясняется это явление?

В число этих глаголов входят:

bring about - вызывать, осуществлять

comment on - комментировать

deal with - рассматривать

listen to - слушать

subject to - подвергать

touch on - затрагивать

В то же время некоторым английским переходным глаголам соответствуют русские глаголы с предлогом:

The eclipse was watched by millions of people. - За солнечным затмением наблюдали миллионы людей.

К таким глаголам относятся:

address - обращаться к
affect - оказывать влияние на
answer - отвечать на
attack - нападать на
follow - следовать за
influence - влиять на
join-присоединяться к
(to) invite - приглашать
I am invited меня - приглашают
I was invited - меня приглашали
I **shall** be **invited** - меня пригласят

В форме страдательного залога могут быть только *переходные* глаголы. *Переходным* глаголом в английском языке называется любой глагол, после которого в действительном залоге стоит прямое дополнение, например: believe (верить), build (строить), drink (пить), give (давать), hear (слышать), open (открыть), read (читать), see (видеть), take (брать) и др.

Непереходными глаголами называются такие, которые не требуют после себя дополнения: come (приходить), fiy (летать), live (жить), run (бежать), think (думать) и др.

В страдательном залоге в основном употребляются present indefinite, past indefinite, future indefinite. Значительно реже употребляются present perfect, past perfect, future perfect, present continuous, past continuous. Форм future continuous, а также всех времен группы perfect continuous глагол в страдательном залоге не имеет.

Страдательный залог (passive voice) употребляется обычно тогда, когда неизвестно, кто совершает действие. Важно лишь, какое действие совершается, и кто его испытывает.

I was asked to do it. Меня попросили это сделать (а не вас).

Здесь важно, что попросили именно меня, а не другого; кто попросил, не важно.

I was asked to help him, and I did. (I helped him.) Меня попросили ему помочь, и я ему помог.

Здесь важно, почему я это сделал. Я ему помог, потому что меня об этом попросили.

His suit was pressed, his shoes gleamed brightly. (Wd.) Его костюм был отглажен, а туфли начищены до блеска.

They were never seen otherwise than together. (Gls.) Их всегда видели только вместе.

The door was opened and Soames came in. (Gls.) Дверь открылась, и Соме вошел.

Упр. 1. Прочтите грамматический комментарий:

Действительный залог- Active Voice

to do - I do this work. – Я делаю эту работу
to buy - I buy milk every day. - Я покупаю молоко каждый день
to read - I read books every day. - Я читаю книги каждый день

Страдательный залог- Passive voice

To be done – The work is done by me.-Работа сделана мной
To be bought- The milk is bought every day by me.-Молоко покупается мной каждый день
To be read-Books are read by me every bay-Книги читаются мной каждый день

He wrote the book.
The book was written by him.
He wrote the book.

Формы страдательного залога

	Indefinite	Continuous	Perferect
Present	The work is done.	The work is being done.	The work has been done.
Past	The work was done.	The work was being done.	The work had been done by 5 o'clock.
Future	The work will be done.	-	The work have been done by 5 o'clock tomorrow.

Страдательный залог (passive voice) употребляется обычно тогда, когда неизвестно, кто совершает действие. Важно лишь, какое действие совершается, и кто его испытывает.

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I was asked to help him, and I did. (I helped him.) Меня попросили ему помочь, и я ему помог.

Здесь важно, почему я это сделал. Я ему помог, потому что меня об этом попросили.

His suit was pressed, his shoes gleamed brightly. (Wd.) Его костюм был отглажен, а туфли начищены до блеска.

They were never seen otherwise than together. (Gls.) Их всегда видели только вместе. The door was opened and Soames came in. (Gls.) - Дверь открылась, и Соме вошел.

Таблица 1 – Времена английского глагола в пассивном залоге

Число	Утвердительная форма	Вопросительная форма	Отрицательная форма
1. Present indefinite passive			
Ед.	I am asked. You are asked. He (she, it) is asked.	Am I asked? Are you asked? Is he (she, it) asked?	I am not asked. You are not asked. He (she, it) is not asked.
Мн.	We (you, they) are asked.	Are we (you, they) asked?	We (you, they) are not asked.
2. Past indefinite passive			
Ед.	I (he, she, it) was asked. You were asked.	Was I (he, she, it) asked? Were you asked?	I (he, she, it) was not asked. You were not asked.
Мн.	We (you, they) were asked.	Were we (you, they) asked?	We (you, they) were not asked.
3. Future indefinite passive			
Ед.	I shall be asked. You (he, she, it) will be asked.	Shall I be asked? Will you (he, she, it) be asked?	I shall not be asked. You (he, she, it) will not be asked^
Мн.	We shall be asked. You (they) will be asked.	Shall we be asked? Will you (they) be asked?	We shall not be asked. You (they) will not be asked.

1. Present perfect passive			
Ед.	I (you) have been asked. He (she, it) has been asked.	Have I (you) been asked? Has he (she, it) been asked?	I (you) have not been asked. He (she, it) has not been asked.
Мн.	We (you, they) have been asked.	Have we (you, they) been asked?	We (you, they) have not been asked.
2. Past perfect passive			
Ед. и мн.	I (you, he, she, it, we, they) had been asked.	Had I (you, he, she, it, we, they) been asked?	I (you, he, she, it, we, they) had not been asked.
3. Future perfect passive			
Ед.	I shall have been asked. You (he, she, it) will have been asked.	Shall I have been asked? Will you (he, she, it) have been asked?	I shall not have been asked. You (he, she, it) will not have been asked.
Мн.	We shall have been asked. You (they) will have been asked.	Shall we have been asked? Will you (they) have been asked?	We shall not have been asked. You (they) will not have been asked.

Упр 2. Выполните следующие упражнения в соответствии с предложенными моделями:

A: In my family my mother the rooms.
B: Our rooms are swept by older sister.

In my family my mother: …

1. … washes the coffee cups.
2. … makes the beds.
3. … empties the ash-trays.
4. … shakes the mats.
5. …puts the books on the shelves.
6. … winds the clock.
7. … takes the dog fog for a walk.

Упр 3. Раскройте скобки, используя правильную форму глагола в страдательном глаголе:

1. This copy (not read). 2. The pages (not cut). 3. Why the car (not lock) or (put) into the garage? 4. This room (use) only on special occasions. 5. Bicycles must not (leave) in the hall. 6. He was taken to hospital this afternoon, and (Operate on) tomorrow morning. 7. The paintings (exhibit) till the end of the month. 8. The little girl is an only child and she (spoil) by her parents and grandparents. 9. Normally this street (sweep) every day, but it (not sweep) yesterday. 10. Thousands of new houses (build) every year.11. When I saw the car, it (drive) at over fifty miles an hour. 12. This room (not use) for ages. I3. My keys (return) to me; they (pick up) in the street.

l4. Dogs must (keep) on leads in the garden. 15. Dictionaries may not (use) till the examination.

Упр 4. Переделайте следующие предложения из действительного залога в страдательный:

l. They waste a lot of time discussing unimportant things. 2. They are repairing my piano at the moment. 3. The guests ate all the sandwiches, and drank all the lemonade. They left nothing. 4. Has someone posted my parcel? 5. Why did no one inform me of the changes of the plan? 6. We shall have to tow the car to the garage. 7. They haven't stumped the letter. 8. She didn't introduce me to her mother.9. A machine could do this much more easily. 10. They took him for a Frenchman, his French was so good.

Упр 5. Определить залог, время, лицо, число у подлежащего, подчеркнуть сказуемое. Перевести.

1. You will go to the circus tomorrow.
2. The answer will be given you by them.
3. The book is looked through.
4. The student has been studied the technical school since 2004.
5. I was in London last year.
6. She likes to read every day.
7. – Where have you been?
   – I've just been in the forest.

Заключение

Выполнив все задания в данной тетради, вы познакомились с основами организации технологического и производственного процессов, с технологическим оборудованием деревообрабатывающего производства, материалами, используемыми в деревообработке на английском языке, закрепили и активизировали языковой и речевой материал, автоматизировали лексико-грамматические навыки, развили умения в чтении и письменной речи.

Вы узнали:

- значения новых лексических единиц (терминов), связанных с тематикой данного этапа обучения, отражающих особенности текстов по специальности;

А также научились:

- практически пользоваться грамматическими средствами, которыми пользуются носители английского языка в процессе общения
- пользоваться общими и специализированными словарями при переводе текстов по специальности
- читать аутентичные тексты, используя основные виды чтения (ознакомительное, изучающее, поисковое);
- представлять социокультурный портрет стран изучаемого языка;
- использовать приобретенные знания и умения в практической деятельности и повседневной жизни для общения с представителями других стран;
- самостоятельно совершенствовать устную речь;
- переводить (со словарем) иностранные тексты профессиональной направленности;
- пополнять словарный запас;
- общаться на иностранном языке (устно и письменно) на профессиональные темы.

Текстовый материал, учитывающий сферу профессиональных интересов обучающихся, способствует передаче иноязычной культуры, содействуют вовлечению в диалог культур, развивает творческие и познавательные умения, способствует развитию лингвистической и коммуникативной компетенций в учебно-производственной сфере: приобретению обширных профессиональных знаний.

Изучив теоретический материал и выполнив практические и контрольные задания, данные в рабочей программе, вы развили:

- языковые, интеллектуальные и познавательные способности;
- интерес и уважение к истории, культуре, обычаям и традициям народов изучаемого языка;
- лингвистический и страноведческий кругозор;
- положительную мотивацию к обучению;
- творческое отношение к учебе.

Владение этим материалом является важной составляющей при изучении английского языка и полностью обосновывает составление данной рабочей тетради.

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