

**МИНИСТЕРСТВО ОБРАЗОВАНИЯ И МОЛОДЕЖНОЙ ПОЛИТИКИ  
СВЕРДЛОВСКОЙ ОБЛАСТИ  
ГАПОУ СО «ЕКАТЕРИНБУРГСКИЙ МОНТАЖНЫЙ КОЛЛЕДЖ»**

**МЕТОДИЧЕСКИЕ РЕКОМЕНДАЦИИ ПО ВЫПОЛНЕНИЮ ПРАКТИЧЕСКИХ  
РАБОТ**

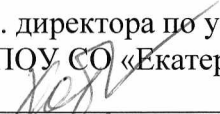
**ПО УЧЕБНОЙ ДИСЦИПЛИНЕ  
«ИНОСТРАННЫЙ ЯЗЫК В ПРОФЕССИОНАЛЬНОЙ ДЕЯТЕЛЬНОСТИ»**

**ДЛЯ СПЕЦИАЛЬНОСТИ**


**08.02.09 «МОНТАЖ, НАЛАДКА И ЭКСПЛУАТАЦИЯ ЭЛЕКТРООБОРУДОВАНИЯ  
ПРОМЫШЛЕННЫХ И ГРАЖДАНСКИХ ЗДАНИЙ»**

Екатеринбург, 2020

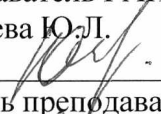
УТВЕРЖДАЮ:

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« 28 » августа 2010 г.

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« 28 » августа 2010 г.

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## **1. Пояснительная записка**

**Специальность 08.02.09 «Монтаж, наладка и эксплуатация электрооборудования промышленных и гражданских зданий»**

**Учебная дисциплина «Иностранный язык в профессиональной деятельности»**

Форма промежуточного контроля – дифференцированный зачёт.

Форма обучения – очная.

**Место учебной дисциплины в структуре основной профессиональной образовательной программы:** дисциплина входит в общий гуманитарный и социально-экономический цикл.

**Цели и задачи учебной дисциплины – требования к результатам освоения дисциплины:**

В результате изучения обязательной части цикла обучающийся

**должен уметь:**

– общаться (устно и письменно) на английском языке на профессиональные и повседневные темы;

– переводить (со словарём) английские тексты различных стилей: публицистических, научно-популярных, художественных и информационных (в том числе профессионально ориентированных);

– самостоятельно совершенствовать устную и письменную речь, пополнять словарный запас;

**знать:**

– лексический (1200-1400 лексических единиц) и грамматический минимум, необходимый для чтения и перевода (со словарём) английских текстов различных стилей: публицистических, научно-популярных, художественных и информационных (в том числе профессионально ориентированных);

### **Перечень общих компетенций**

ОК 01. Выбирать способы решения задач профессиональной деятельности применительно к различным контекстам;

ОК 02. Осуществлять поиск, анализ и интерпретацию информации, необходимой для выполнения задач профессиональной деятельности;

ОК 03. Планировать и реализовывать собственное профессиональное и личностное развитие;

ОК 04. Работать в коллективе и команде, эффективно взаимодействовать с коллегами, руководством, клиентами;

ОК 05. Осуществлять устную и письменную коммуникацию на государственном языке Российской Федерации с учетом особенностей социального и культурного контекста;

ОК 06. Проявлять гражданско-патриотическую позицию, демонстрировать осознанное поведение на основе традиционных общечеловеческих ценностей;

ОК 07. Содействовать сохранению окружающей среды, ресурсосбережению, эффективно действовать в чрезвычайных ситуациях;

ОК 09. Использовать информационные технологии в профессиональной деятельности;

ОК 10. Пользоваться профессиональной документацией на государственном и иностранном языках;

ОК 11. Использовать знания по финансовой грамотности, планировать предпринимательскую деятельность в профессиональной сфере.

**Рекомендуемое количество часов на освоение рабочей программы учебной дисциплины:**

максимальной учебной нагрузки обучающегося 190 часов, в том числе:  
обязательной аудиторной учебной нагрузки обучающегося 166 часов;  
самостоятельной работы обучающегося 24 часов.

## 2. План-график выполнения практических работ

### Технологическая карта практических работ

| Название раздела, темы программы учебной дисциплины/профессионального модуля                            | Планируемые результаты (компетенции) | Задание                             | Формы и методы контроля и оценивания                               |
|---|--------------------------------------|-------------------------------------|--|
| <b>Раздел 2. Профессиональный модуль</b>  |                                      |                                     |  |
| Тема 2.1. Введение в основы перевода текстов профессиональной направленности и технической документации | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |
| Тема 2.2<br>Техническая эксплуатация и обслуживание электрического и электромеханического оборудования  | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |
| Тема 2.3. Технология монтажа электрического и электромеханического оборудования                         | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |
| Тема 2.4<br>Эксплуатация электрооборудования и сетей промышленных предприятий                           | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |
| Тема 2.5. Технология ремонта электрических сетей и электрооборудования                                  | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |
| Тема 2.6. Перевод текстов профессиональной направленности и технической документации                    | ОК 1-7, ОК 8-11                      | Работа с лексикой, работа с текстом | Устный опрос, просмотр и проверка выполнения работы преподавателем |

### 3. Методические рекомендации по выполнению практических работ

Методические рекомендации по выполнению практических работ по дисциплине «Иностранный язык в профессиональной деятельности» предназначены для оказания методической помощи студентам в выполнении заданий. Практические задания нацелены на формирование умения переводить (со словарём) английские тексты различных стилей: публицистических, научно-популярных, художественных и информационных (в том числе профессионально ориентированных); на повышение лексического минимума студента по специальности «Монтаж, наладка и эксплуатация электрооборудования промышленных и гражданских зданий». Практические задания содержат тексты профессиональной направленности по каждой теме профессионального модуля рабочей программы дисциплины «Иностранный язык в профессиональной деятельности».

#### 1. Работа с лексикой:

##### Цель работы:

– содействовать пополнению активного словарного запаса посредством заучивания лексических единиц;

##### Задачи:

- способствовать знанию английского алфавита в порядке расположения его букв;
- способствовать развитию умения находить исходную форму слова;
- способствовать развитию памяти, чувства языка;
- способствовать развитию умения определить часть речи, к которой относится слово;
- способствовать развитию познавательных способностей и активности студентов: творческой инициативы, самостоятельности, ответственности и организованности;
- содействовать формированию самостоятельности мышления, способностей к саморазвитию, самосовершенствованию и самореализации.

##### Последовательность выполнения задания:

1. Прочитайте текст, выпишите незнакомые слова по теме.
2. Просмотрите список лексических единиц.
3. Перепишите их в тетрадь в столбик, напишите перевод уже знакомых вам слов.
4. Используйте словарь для перевода незнакомых лексических единиц. Обращайте внимания на следующее:
  - при поиске слова в словаре необходимо следить за точным совпадением графического оформления искомого и найденного слова, в противном случае перевод будет неправильным;
  - многие слова являются многозначными, т.е. имеют несколько значений, поэтому при поиске значения слова в словаре необходимо читать всю словарную статью и выбирать для перевода то значение, которое подходит в контекст предложения;
  - при поиске в словаре значения слова в ряде случаев следует принимать во внимание грамматическую функцию слова в предложении, так как некоторые слова выполняют различные грамматические функции и в зависимости от этого переводятся по-разному;
  - при поиске значения глагола в словаре следует иметь в виду, что глаголы указаны в словаре в неопределенной форме (Infinitive).

5. Помимо перевода слова, зафиксируйте транскрипцию, во избежание трудностей в произношении слов (также можно воспользоваться электронным воспроизведением слов).

##### Примеры сайтов:

– <https://woordhunt.ru/word/word>

– <https://dictionary.cambridge.org/ru/>

6. Отчитайте слова.

7. Выполните приведенные упражнения после текста, они помогут запомнить новые лексические единицы и употреблять их в речи.

8. Переходите к заучиванию слов. Рекомендуется использовать один из следующих приемов для эффективного запоминания:

– составляйте ассоциативные сети;

– используйте карточки со словами (на одной стороне иностранного слово на другой его перевод);

– создайте виртуальные стикеры на рабочем столе или экране смартфона.

9. Повторите выученные лексические единицы. Главное – распределение повторений во времени. Повторять рекомендуется:

– сразу в течение 15-20 минут,

– через 8-9 часов и

– через 24 часа.

– Полезно повторять материал за 15-20 минут до сна и утром, на свежую голову.

– Чтобы перевести информацию в долговременную память, нужно делать повторения спустя сутки, двое и так далее, постепенно увеличивая временные интервалы между повторениями. При каждом повторении нужно осмысливать ошибки и обращать внимание на более трудные места.

#### **Требования к отчетности:**

– устный опрос лексических единиц;

– проверка заданий в тетрадях;

– перевод предложений, абзацев, текстов с использованием методик поиска слов и их значений в словаре.

#### **Критерии оценки результатов:**

– уровень освоения учебного материала;

– уровень умения использовать словарь при выполнении практических упражнений.

– уровень умения активно использовать образовательные ресурсы, находить требующуюся информацию, изучать ее и применять на практике;

умение работать со словарем.

## **2. Работа с текстом (перевод текста)**

### **Цель работы:**

– содействовать формированию умения переводить (со словарём) английские тексты различных стилей: публицистических, научно-популярных, художественных и информационных (в том числе профессионально ориентированных).

### **Задачи:**

– способствовать развитию умения ознакомительного чтения;

– способствовать развитию умения изучающего чтения;

– способствовать развитию навыка учебного перевода текстов с иностранного языка на русский язык;

– способствовать развитию памяти, чувства языка;

– способствовать развитию умения определить часть речи, к которой относится слово;

– способствовать развитию познавательных способностей и активности студентов: творческой инициативы, самостоятельности, ответственности и организованности;

– содействовать формированию самостоятельности мышления, способностей к саморазвитию, самосовершенствованию и самореализации.

### **Последовательность выполнения задания:**



1. Прочитайте текст, постараюсь понять его основную мысль.  
2. Убедитесь, что все слова, выделенные жирным шрифтом, Вам знакомы, Вы знаете их перевод.

3. Приступайте к переводу текста:

3.1. обращайтесь внимание на грамматическую форму глагола в предложении, от этого будет зависеть выбор грамматического времени и наклонения;

3.2. при переводе лексических единиц необходимо выбирать в языке перевода соответствия различного рода: независимые от контекста однозначные соответствия, контекстуальнозависимые вариантные соответствия, трансформационные соответствия.

3.3. Помните, что главная задача перевода – передать смысл (основную мысль текста);

3.4. прочитайте свой перевод, проверьте наличие лексических, грамматических ошибок; устраните их;

К типичным ошибкам при переводе текста относятся:

– Ошибка в выборе однозначного соответствия. Термины в английском и русском языке могут отличаться. Если в русском языке нет полного соответствия данному термину, необходимо его заменить близким по значению или применить описательный перевод.

– Ошибка в порядке слов. Не старайтесь передать в русском языке порядок слов аналогичный английскому. Это может привести к бессмысленности, некорректности высказывания. Пользуйтесь грамматическими трансформациями. Старайтесь всегда передать смысл, а не просто переводить слова.

– Ошибка в соблюдении стилистической нормы. Необходимо избегать нарушения стилового регистра. Если текст написан в научно-публицистическом стиле, это стиль необходимо сохранить при переводе.

– Ошибка в использовании машинного перевода. Не следует выбирать машинный перевод для перевода всего текста, т.к. это нарушит его стилистику, приведет к большому количеству лексических и грамматических ошибок, нарушит логику изложения материала.

3.5. после совместного обсуждения типичных ошибок, итоговый вариант перевода необходимо переписать на чистовик.

**Требования к отчетности:**

– проверка заданий в тетрадях;

– устное обсуждение перевода текста, совместное устранение ошибок.

**Критерии оценки результатов:**

– уровень освоения учебного материала;

– уровень умения использовать словарь при выполнении практических упражнений.

– уровень умения перефразировать предложения, осуществлять лексические и грамматические трансформации.

#### 4. Практические задания

##### Профессиональный модуль

### Тема 2.1 Введение в основы перевода текстов профессиональной направленности и технической документации

#### General tools

##### 1. Read and translate the text

Talbot Electrical Services  
Employee Manual

All employees of Talbot Electrical Services will bring their own tool kits. Tool kits need to contain the basic tools needed for electrical jobs. These basic tools are sold at most hardware stores.

Pliers are needed for pulling and cutting wires. Your kit needs to include long nose pliers and end cutting pliers. Side cutters and diagonal cutters are recommended.

You must have wire strippers in your kit. Make sure they are able to strip the most common wires. You will also need several types of screwdrivers on the job.

A flashlight, measuring tape and utility knife will round out your kit.

##### Exercises

2. Read the text from the company manual. Then, mark the following statements as true (T) or false (F)

1. \_\_\_ Employees can buy the tools at hardware stores.
2. \_\_\_ Side cutters and diagonal cutters are needed in the tool kit.
3. \_\_\_ Wire strippers are used for cutting and pulling wire.

3. Write a word that is similar in meaning to the underlined part

1. Jack forgot his pliers that are only used for cutting wire at the job site.

\_\_\_ a \_\_\_ n \_\_\_ c \_\_\_ t \_\_\_ r \_\_\_

2. A small, battery operated light is good for seeing in dark spaces.

\_\_\_ l \_\_\_ h \_\_\_ g \_\_\_

3. Mary used a tool with a thin, sharp slanted blade to cut open the box.

\_\_\_ t \_\_\_ t \_\_\_ f \_\_\_

4. The electrical bought a tool used for pulling out staples for his kit.

\_\_\_ n \_\_\_ t \_\_\_ p \_\_\_ e \_\_\_

4. Match the words (1-6) with the definitions (A-F)

1. \_\_\_ tool kit
2. \_\_\_ side cutters
3. \_\_\_ screwdriver
4. \_\_\_ long nose pliers
5. \_\_\_ measuring tape

6. \_\_ wire stripper

- A a tool with blades able to grip or cut wires
- B a tool used to tighten or loosen screws
- C a tool for cutting, twisting or pulling wires
- D a tool used to pull the covering off of wires
- E a tool used for finding the length of an object
- F a bag or box used to hold a set of tools

### More tools

1. *Read and translate the text*

*NewGuy12*

I have the basic stuff I need to do on jobs (hammer, Phillips screwdrivers, tool belt, etc.) What else do I need in my tool kit?

*MasterElectrician*

You need wrenches for different things. I'd get allen wrenches, socket wrenches, and torque wrenches. Also, get electrical tape and duct tape for your kit.

*WiredUp*

My tool kit has a hacksaw, nut drivers, and crimpers in it. I don't use them a lot. But they're there!

*NewGuy12*

Thanks for the advice! Going to the store now.

Exercises

2. *Read the web forum. Then, choose the correct answers.*

1. What is the webpage mostly about?

- A the best tool kits to buy
- B the tools electricians need
- C the different types of wrenches
- D the kinds of tape electricians use

2. What advice is NewGuy12 looking for?

- A which basic tools he needs for jobs
- B which tool brand works the best
- C which additional tools he needs
- D which tools do not get used much

3. Which is NOT in NewGuy12's tool kit yet?

- A tool belt
- B hammer
- C hacksaw
- D Phillips screwdriver

3. *Choose the sentence that uses the underlined part correctly.*

1. A John put the tool belt around his waist.

- B A crimper can easily cut through metal.
2. A I used an allen wrench to hit the nail.  
B Sam covered the wires with electrical tape.
3. A I need a torque wrench to tighten the loose bolt.  
B The wires need to be cut by a hacksaw.

4. Match the words (1-8) with the definitions (A-H)

1. \_\_\_ crimper
2. \_\_\_ hacksaw
3. \_\_\_ hammer
4. \_\_\_ allen wrench
5. \_\_\_ duct tape
6. \_\_\_ nut driver
7. \_\_\_ socket wrench
8. \_\_\_ Phillips screwdriver

- A tool with a thin blade that cuts through metal
- B tool used to tighten bolts
- C tool used for tightening nuts
- D kind of tape made of mesh used for air ducts
- E a tool with a metal top used for hitting nails
- F tool used to tighten screws with a cross head
- G tool used for pushing connectors around bare wires
- H a tool with a six-sided head used for tightening screws or bolts

## **Тема 2.2 Техническая эксплуатация и обслуживание электрического и электромеханического оборудования**

### **Power tools – drills and saws**

#### *1. Read and translate the text*

Electrical Source  
Spring catalog Power Drills and Saws  
Electrician's Drill Bit Kit

All electricians need a high-quality drill. Along with it, they need lots of drill bits. The Electrician's Drill Bit Kit has everything you need. It contains several spade bits. These bits are perfect for most jobs. For other jobs, the kit has auger bits, hole saw bits and wood augers. Also included are twelve twist bits.

#### Electrician's Power Saw Set

This set includes three saws all electricians should have. The tough circular saw cuts through anything! The powerful reciprocating saw comes with five blades. Finally, the jigsaw is perfect for cutting.

## Exercises

2. Read the text from the catalog. Then, mark the following statements as true (T) or false (F)

1. \_\_\_ The drill bit kit comes with a drill.
2. \_\_\_ One spade bit is included with the set.
3. \_\_\_ The jigsaw works best for straight lines.

3. Read the sentence pair. Choose where the words best fit the blanks

1. circular saw / reciprocating saw  
A I need to change the blade on the \_\_\_\_\_.  
B The round blade fits on the \_\_\_\_\_.
2. twist bit / wood auger  
A Use the \_\_\_\_\_ to make a hole in the cupboard.  
B A \_\_\_\_\_ can be used on a variety of materials.
3. spade bit / auger bit  
A The sharp point of the \_\_\_\_\_ will work best.  
B I need the longest \_\_\_\_\_ that is in the kit.

4. Match the words (1-4) with the definitions (A-D)

- |               |                     |
|---------------|---------------------|
| 1. ___ drill  | 3. ___ hole saw bit |
| 2. ___ jigsaw | 4. ___ drill bit    |

- A the sharp end of a drill used to make holes  
B a metal tube-shaped drill bit with sharp edges used to cut rings  
C a saw with a thin blade that cuts straight and rounded edges  
D a tool that makes holes in different materials

## Specialized tools

1. Read and translate the text

[www.zaptools.com](http://www.zaptools.com) Welcome to ZapTools!

ZapTools has the best selection and lowest prices on everything electricians need.

We carry specialized tools such as conduit benders, levels, fish tapes and stud punches. We also have the largest selection of lineman's pliers on the Internet.

Be sure to check out our power tools too. We have saws and drills, including hammer drills. To go with the drills, we have specialized drill bits. We have the toughest brands of stepped drill bits and masonry drill bits.

We also sell electronic equipment for electricians. We have multimeters, plug in analyzers and labeling machines.

## Exercises

2. Read the company webpage. Then, complete the table using information from the webpage

| Category       | Tolls |
|----------------|-------|
| 1. Specialized |       |
| 2. Power       |       |
| 3. Electronic  |       |

3. Fill in the blanks with the words and phrases from the word bank: fish tape, level, multimeter, hammer drill, labeling machine

- We used a \_\_\_\_\_ to keep track of the wire connections.
- The \_\_\_\_\_ showed the wire had a lot of voltage.
- The wires were put behind the wall using a \_\_\_\_\_.
- Kate used a \_\_\_\_\_ to make sure the picture was straight.
- The \_\_\_\_\_ broke through the concrete quickly.

4. Read the sentence pair. Choose where the words best fit the blanks

1. lineman's pliers/ stud punch

A Sam used a \_\_\_\_\_ on the wall.

B \_\_\_\_\_ are good for cutting wires.

2. stepped drill bit/ masonry drill bit

A I need a \_\_\_\_\_ to drill through the metal.

B A \_\_\_\_\_ will make a hole in the concrete.

3. plug-in analyzer/ conduit bender

A The \_\_\_\_\_ indicates there are some loose wires.

B Mark the conduit before you use the \_\_\_\_\_ on it.

## Тема 2.3 Технология монтажа электрического и электромеханического оборудования

### Materials

1. Read and translate the text

Choosing the right drill for the job

Most jobs can be done using a simple rotary drill. It can be used for wood and plywood. It can also be used for drywall, plaster, copper and steel. Of course, you need to have the right drill bits too.

What about for harder materials like brick and concrete? A hammer drill works well for blocks, brick, mortar and stone. A rotary hammer works best for materials like concrete and cement.

Sometimes the terms hammer drill and rotary hammer are used to mean the same tool. However, a hammer drill chips away at the material. A rotary hammer pounds away at it to make a hole.

Exercises

- Before you read the passage, talk about these questions.
- What are some materials electricians work with on the job?

2. What are some tools electricians might need to work with those materials?

2. Read the trade magazine article. Then, complete the table using information from the article

| Drill Type    | Material |
|---------------|----------|
| Rotary drill  | 1        |
| Hammer drill  | 2        |
| Rotary hammer | 3        |

3. Write a word that is similar in meaning to the underlined part

1. The substance that comes from trees was rotting.

rot  
\_ o \_ d

2. Reddish brown metal pipes are often found in old homes.

rusty  
\_ \_ p \_ e \_

3. The ceiling was covered in a thin coat of a mixture of lime, sand and water.

plaster  
p \_ \_ s \_ \_ r

4. I tried drilling the mixture used to hold bricks or stones together but the drill bit broke

cracked  
\_ \_ r \_ \_ r

5. The workers used a mixture of ground limestone and clay for the outside of the building.

concrete  
c \_ \_ \_ n \_

4. Match the words (1-7) with definitions (A-G)

1. \_\_\_ block

4. \_\_\_ brick

7. \_\_\_ concrete

2. \_\_\_ stone

5. \_\_\_ plywood

3. \_\_\_ steel

6. \_\_\_ drywall

A a board made of plaster and covered in paper

B a metal that is made from combining iron and carbon

C a piece of material that is solid with flat surfaces on each side

D a board made of thin layers of wood glued together

E a hard material made with cement, small stones, sand and water

F a block of clay that is baked until it is hard

G the hard substance rocks are made from

## Safety

1. Read and translate the text.

Be safe at work!

Working with electrical wiring is often dangerous. The proper safety equipment can save your life. Remember these tips:

1 Always protect your head, eyes, hands and feet. Never work without wearing the following items:

- a A hard hat
- b A pair of leather gloves
- c Steel toe boots
- d Safety glasses

2. On the job, there is sometimes danger of electric shock or explosion. In these cases, dress properly. Wear the following:

- a An arc shield
- b Arc flash clothing
- c Electrical hot gloves

3. When working with live wires, be extra careful. Protect yourself from shocks. Use an arc flash blanket and stand on a rubber mat. Finally, hold onto a hot stick.

### Exercises

2. Read the safety poster. Then, mark the following statements as true (T) or (F)

- 1. \_\_\_ Safety glasses should be worn if needed.
- 2. \_\_\_ Arc flash clothing helps if there is an explosion.
- 3. \_\_\_ Hold a hot stick when working with dead wires.

3. Choose the sentence that uses the underlined part correctly

- 1. A James put on leather gloves before picking up the hammer.  
B The electrician stood on the arc shield while working.
- 2. A Steel toe boots protect your feet if something falls on them.  
B A hot stick is worn when working with electricity.
- 3. A Oliver held on to the electrical hot gloves while touching the wire.  
B Marie put a hard hat on her head before entering the building.

4. Match the words (1-7) with the definitions (A-G)

- 1. \_\_\_ arc shield
- 2. \_\_\_ rubber mat
- 3. \_\_\_ hot stick
- 4. \_\_\_ safety glasses
- 5. \_\_\_ electrical hot gloves
- 6. \_\_\_ arc flash blanket
- 7. \_\_\_ arc flash clothing

- A clear glasses that are made of thick plastic
- B a blanket used to protect from explosions or shock
- C a fiberglass rod that protects from shocks
- D gloves made of rubber that protect from shocks
- E a mat made of rubber that electricians stand on
- F pants, shirts, jackets, and shoes designed to protect from shocks or explosions



G a protective plastic shield for the eyes and face

## Тема 2.4 Эксплуатация электрооборудования и сетей промышленных предприятий

### Actions

1. *Read and translate the text.*

#### Electrician

#### Occupations Outlook

The job of an electrician involves putting in and maintaining electrical power systems. This is done in homes and businesses.

The work of an electrician is occasionally demanding. Electricians must lift heavy objects and climb ladders.

The work may require them to bend, stand, kneel, or stoop down low for long periods.

To be successful, electricians need to work fast. In order to grab and release tools quickly, they wear a tool belt. To prevent electric shock, electricians usually turn off the power source before working. They turn on the power when they are done. Electricians also use sharp tools to split wires.

#### Exercises

2. *Read the occupational manual. Then, mark the following statements as true (T) or false (F)*

1. \_\_\_ Electricians are expected to work quickly.
2. \_\_\_ Electricians must wear helmets to work.
3. \_\_\_ Electricians work in homes and businesses.

3. *Match the words (1-5) with the definitions (A-E)*

- |              |                |
|--------------|----------------|
| 1. ___ lift  | 4. ___ turn on |
| 2. ___ stand | 5. ___ release |
| 3. ___ stoop |                |

A to stop holding sometimes

B to be in a vertical position

C to make something work by giving it power

D to move something up to a higher place

E to bend forward while standing up

4. *Choose the sentence that uses the underlined part correctly*

1. A He released the rope and didn't let go.  
B The electrician climbed the ladder.
2. A She split the check and paid it all herself.  
B He can't lift heavy weights since his accident.
3. A He grabbed the bag and ran away.

- B I turned on the light so it would be dark.
- 4. A He stooped to reach the top of the shelf.
- B Please turn off the TV before you leave.
- 5. A It's hard to stand all day in an uncomfortable chair.
- B I had to knell to pick up the papers on the floor.

### More Actions

#### 1. Read and translate the text

##### Fixing Underground Wires

Fixing underground wires sounds difficult. But it's actually simple. You just need to splice some wires.

To begin, switch off the electricity. Accidental shocks are always a risk when working with electricity. Next, test the electricity to make sure it is off. Push a button

on the same circuit. If it is safe, dig into the ground. Inspect the wires, and find the damaged part. Cut it off. Next, strip the insulation off the wires. Twist the ends of the wires together. Then, pull on them to make sure they are joined. If they are, bind the ends together with tape. After that, install I waterproof insulation plastic covering on the wires. Then connect the electricity.

#### Exercises

2. Read the instructions for fixing underground wires. Then, choose the correct answers

1. What are the instructions mostly about?
  - A why it is important to replace wires
  - B how to fix a damaged wire
  - C what insulation is made out of
  - D how to inspect an electric circuit
2. Why should the electricity be switched off?
  - A to make sure the wires aren't damaged
  - B to avoid getting shocked by the wires
  - C to make it easier to find the wires
  - D to check that the wires are connected
3. What is the last step in the instructions?
  - A strip the insulation from the wires
  - B inspect the underground wires
  - C install waterproof insulation
  - D turn on the electricity again

3. Match the words (1-4) with the definitions (A-D)

1. \_ install
2. \_ inspect

3. \_ connect

4. \_ test

A to look at something closely

B to turn on power or electricity

C to try something to make sure it works

D to connect something so it can be used

4. Read the sentence pair. Choose where the words best fit the blanks

1. twist/ push

A If you \_\_\_\_\_ that wire too much, it will break.

B I had to \_\_\_\_\_ the box up the hill.

2. pull/ bind

A The wagon has a handle so you can \_\_\_\_\_ it.

B I used string to \_\_\_\_\_ the flowers together.

3. stripped/ splice

A I tried to \_\_\_\_\_ the wires, but they wouldn't stay together.

B After he \_\_\_\_\_ the wires, he threw the covering away.

## Numbers

1. Read and translate the text.

| How do they say it? |  |  |
|---------------------|--|--|
| Symbol/ Number      | Interpretation/<br>Pronunciation                 | Example  |
| =                   | is, equals, comes<br>to                          | $\frac{1}{2} = 0.5$ one half<br>equals point five            |
| +                   | and, plus, add                                   | $10+5=15$ ten and<br>five comes to fifteen                   |
| -                   | minus, less,<br>subtract                         | $10-5=5$ ten less<br>five is five                            |
| *                   | times, multiplied<br>by                          | $10*5=50$ Ten<br>times five equals fifty                     |
| /                   | over, divided by                                 | $10/5=2$ ten<br>divided by five is two                       |
| $\frac{7}{8}$       | seven eighth                                     | $\frac{1}{8}$ the cable<br>measured one eighth of<br>a meter |
| 1,200               | one thousand two<br>hundred<br>or twelve hundred | The repair cost<br>twelve hundred dollars                    |

## Exercises

2. Read the chart. Then, mark the following statements as true (T) or false (F)

1. \_\_\_ Eight less two means the same thing as eight minus two.
2. \_\_\_ Seven times six equals seven plus six.
3. \_\_\_  $3/8$  is pronounced three times eight.

3. Fill in the blanks with the words and phrases from the word bank.  
*add times plus comes to hundred*

1. Three \_\_\_ two is six.
2. Four plus seven eleven.
3. Fifty twenty equals thirty.
4. One thousand plus four hundred is fourteen
5. To get ten, \_\_\_ three and seven.
6. Fifteen two is seventeen.

4. Read the sentence and choose the correct word

1. One fourth/ times is equal to 0.25.
2. Nine over/ less eight equals one.
3. Start with seven. Subtract/ Add three. This equals four.
4. Six multiplied by/ divided by two is twelve.
5. Six over/ plus three equals two.
6. Twenty less/ divided by four equals five.
7. Five plus six equals/ over eleven.

## Тема 2.5 Технология ремонта электрических сетей и электрооборудования

### Measurements

1. Read and translate the text

#### Know Your Measurements

Fasteners and tools use imperial measurements or metric, and knowing the difference is important. It prevents you from rounding off a fastener, damaging tools, or causing injury. If you don't know an item's size, use a micrometer or other caliper to measure it. Check centimeters or millimeters for metric tools. Look at inches for imperial tools.

You will also need to know larger measurements, such as feet, yards, and meters. These measurements are often used in building plans.

Temperature measurements are also important to know. Some countries measure degrees using the Fahrenheit scale and others use the Celsius scale. You may need to convert from one scale to the other.

### Exercises

2. Read the magazine article about measurements. Then, mark the following statements as true (T) or false (F)

1. \_\_\_ Millimeters are often used in building plans.
2. \_\_\_ Inches are used for imperial tools.
3. \_\_\_ Using the wrong size tool can cause injury.

3. Match the words (1-8) with the definitions (A-H)

- |                  |                   |
|------------------|-------------------|
| 1. ___ degree    | 5. ___ convert    |
| 2. ___ yard      | 6. ___ Celsius    |
| 3. ___ imperial  | 7. ___ centimeter |
| 4. ___ round off | 8. ___ micrometer |

A to change from one system into another

B a metric measure of length or distance

C a unit used to measure temperature

D to damage a screw or bolt

E a tool that measures small distances

F the system that uses inches

G a measurement equaling three feet

H the metric temperature scale

4. Write a word that is similar in meaning to the underlined part

1. Jack needs two units equaling twelve inches of steel gauge wire.    e    t
2. I have imperial wrenches, but I need one that is part of the system based on the meter.    e    i c
3. The board measured three units of measurement equal to 39 inches across. m    e
4. The size of the screw was eight units equal to 1/10 of a centimeter.    I I    m       r s
5. The thermometer measures both non- metric temperature scale and Celsius.    h    n       t
6. How many units of imperial length is that cable? i          e s

## Elements of Electricity

1. Read and translate the text

Do you want to be an electrician?

Do you want to have a high voltage summer?

In this course, students learn the basics of electricity. They start by learning about electrons, the source of electricity. Then, they study electric currents. For instance, they learn the differences between AC and DC. Students also learn the different units of measurement. They will be able to calculate amperes, volts and watt in a circuit. The class will even use ohms to calculate resistance. By the end students will have all the basics. They will be on their way to being great electricians!

2. *Read the college course catalog describing an electricity class. Then, mark the following statements as true (T) or false (F)*

1. \_\_\_ Students will learn how to calculate measurements for electricity.
2. \_\_\_ The class is for anyone who works as an electrician.
3. \_\_\_ Students should understand currents before they enter the class.

3. *Match the words (1-6) with the definitions (A-F)*

- |                |             |
|----------------|-------------|
| 1. ___ voltage | 2. ___ AC   |
| 3. ___ DC      | 4. ___ ohm  |
| 5. ___ current | 6. ___ volt |

A a measurement of the force of electricity

B a current that flows in two directions

C a measurement showing resistance

D the quantity of electricity in a wire

E the strength of moving electricity

F a current that flows in one direction

4. *Fill in the blanks with the words from the word bank*

electron resistance watt amperes

1. A(n) \_\_\_ is too small to see without a powerful microscope.
2. Many wires are made out of copper because of its low.
3. A(n) \_\_\_ measures how much electrical power is being used.
4. A common way to measure electric current is \_\_\_\_\_.

### **Electrical safety**

1. *Read and translate the text*

#### **Electrical safety**

Although electricity is a part of everyday life, it still has many hazards. Following a few simple safety rules can save your life.

Electricity shocks people when their bodies become part of an electrical path between a live wire and the ground or Two live wires with opposite charges Being

shocked can cause serious burns. It can also paralyze muscles. Electrocuting is also a major risk when working with electricity. To reduce electrical safety hazards always de-energize power sources before working with electrical equipment. Follow lockout/ tagout procedures.

Remember: all electricity, including static electricity, can be dangerous. Never take risks.

### Exercises

2. Read the safety pamphlet. Then, mark the following statements as true (T) or false (F)

1. \_\_\_ Static electricity is not dangerous.
2. \_\_\_ Lockout/ tagout procedures cause electrocution.
3. \_\_\_ Electric shocks can paralyze muscles.

3. Read the sentence pair. Choose where the words best fit the blanks

1. burn/ live wire

A Touching a \_\_\_\_\_ is very dangerous.

B A serious \_\_\_\_\_ should be seen by a doctor.

de-energize/ electrocution

A Electricians \_\_\_\_\_ sockets before they work on them.

B \_\_\_\_\_ can be prevented by following safety rules.

risk/ static electricity

A \_\_\_\_\_ often builds up on door knobs.

B There is always a \_\_\_\_\_ of getting hurt at work.

4. Fill in the blanks with the words from the word bank

*electron resistance watt amperes*

1. A(n) \_\_\_\_\_ is too small to see without a powerful microscope.
2. Many wires are made out of copper because of its low \_\_\_\_\_.
3. A(n) \_\_\_\_\_ measures how much electrical power is being used.
4. A common way to measure electric current is \_\_\_\_\_.

## **Тема 2.6 Перевод текстов профессиональной направленности и технической документации**

### **Types of Wires**

1. Read and translate the text

There are many different types of electrical wire and cable. Knob and tube (K& T) wiring is one of the oldest types of wiring. Older types of cable are armored cable (AC) and metal-clad (MC) cable. Both of these are insulated by steel. These were replaced in newer construction by nonmetallic (NM) sheath cable. However, replacement is not required if the wire or cable jacket is still good.

Check them to make sure there is no bare conductor or wire showing. Underground feeder (UF) cable and service entrance (SE) cable are used outdoors. However, SE cable is only approved for above-ground use.

*2. Read the excerpt from a magazine article. Then, choose the correct answers*

1. What is the main idea of the article?

A Wiring in older houses is dangerous.

B Metal-clad cable is not recommended in homes.

C Several types of wires and cables can be found in buildings.

D Indoor and outdoor wires vary from each other.

2. Which of the following is NOT true according to the article?

A Armored cable is a newer kind of wire.

B NM cable is found in newer buildings.

C Wires are unsafe in old buildings

D SE cable is not used underground.

3. When do older wires need to be replaced?

A when they are found in older homes

B when NM cable is available for use

C when bare wires or conductors are seen

D when they are used for service entrances

*3. Match the words (1-6) with the definitions (A-F)*

1 \_ SE cable

2 \_ knob and tube

3 \_ armored cable

4 \_ NM sheath cable

5 \_ UF cable

6 \_ metal-clad cable

A a cable with an insulating material like thermoplastic

B wires that run through porcelain covers found in old homes

C wires for above ground use encased in a PVC jacket

D wires in steel insulation with a grounding wire

E wires for underground, wet areas in a thermoplastic jacket

F wires encased in spiraled steel or aluminum

*4. Read the sentence pair. Choose where the words best fit the blanks*



1. conductor/ jacket

A It looks like the \_\_\_\_\_ is bare.

B The \_\_\_\_\_ is cracked.

2. required/ insulated

A Modern wires should always be \_\_\_\_\_

B UF or SE cable are \_\_\_\_\_ for outdoor wiring.

## Wire Codes

1. *Read and translate the text*

### Reading Wire Codes

Wiring codes are complicated. Here are some tips to make your job simpler.

1. Before installing any wire, read the gauge. Each wire has a number embossed on its sheath. The number refers to the diameter of the wire.

2. Know the rating for wire gauges. Wires with larger numbers are lesser in diameter. So, zero, or ought gauge wire has a bigger diameter than a 14 gauge.

3. Remember that different kinds of wires go in different locations. An 'H' on a wire means the maximum amount of heat it can stand is 165 Fahrenheit. A 'W' means you can put it in a damp area. It is water resistant.

2. *Read the cheat sheet about wiring codes. Then, choose the correct answers*

1. What is the purpose of the cheat sheet?

A to help electricians choose the right wires

B to explain why wiring codes are complicated

C to give advice about the best kind of wire

D to give an example of why following the codes is important

2. What is NOT a tip given on the cheat sheet?

A Large gauge wires are wider in diameter.

B Certain wires are used for specific locations.

C Wires are marked on the protective casing.

D Wires are rated depending on thickness.

3. What should electricians do before installing a wire?

A find a good location

B read the wire's heat marking

C determine the wire gauge

D inspect the water resistant marking

3. *Match the words (1-6) with the definitions (A-F)*

1. \_\_\_ diameter

2. \_\_\_ rating

3. \_\_\_ ought

4. \_\_\_ sheath

5. \_\_\_ gauge

6. \_\_\_ code

A set of letters or numbers that give information

- B a device that shows the measurement of an object
- C a list that rates an object on its worth
- D nothing or zero
- E a protective covering
- F a line that shows the width of a circle

4. Fill in the blanks with the words from the word bank

*resistant    embossed    maximum    location*

1. I want to keep the \_\_\_\_\_ of the party a secret.
2. The \_\_\_\_\_ amount of weight for the ride is 250 pounds.
3. The wires are heat \_\_\_\_\_ up to 200 degrees.
4. I had the watch \_\_\_\_\_ with her name.

### **Wire Connectors**

1. Read and translate the text

#### Waterproof Connector

Most wire connectors have a thermoplastic shell and a spring inside. The color depends on the gauge of the wire.

Which Wire Connector is Right for You?

Ask these questions:

Is the wire indoors?

YES Try ordinary twist-on or crimp-on connectors.

NO Try underground or waterproof connectors to protect the wires outdoors.

Can you twist the wires?

YES Try an ordinary twist-on connector, or a winged connector for extra leverage.

NO Try a twist-on connector.

2. Read the store webpage on wire connectors. Then, choose the correct answers

1. What is the main purpose of the webpage?
  - A to explain how a wire connector works
  - B to help someone choose the right wire connector
  - C to show that waterproof connectors protect the wires
  - D to show how a wire connector is used
2. Which of the following is NOT true according to the webpage?
  - A Use push-in connectors when you can't twist the wires.
  - B Underground connectors protect wires outdoors.
  - C Crimp-on and twist-on connectors are both used indoors.
  - D Make a grounding connection with an underground connector.
3. What does the color of a wire connector depend on?
  - A the voltage of the wire
  - C the gauge of the wire

B the number of wires D the type of shell

3. Match the words (1-6) with the definitions (A-F)

- |                           |                          |
|---------------------------|--------------------------|
| 1. ___ spring             | 2. ___ thermoplastic     |
| 3. ___ twist-on connector | 4. ___ push-in connector |
| 5. ___ crimp-on connector | 6. ___ shell             |

A a fire-resistant material

B the outer part of the connector that protects wires

C a connector that uses holes instead of twisting to splice wires

D a connector that is put into place with a special tool

E a connector that splices wires together by twisting

F the part of the connector that creates pressure to tightly splice wires

4. Read the sentence pair. Choose where the words best fit the blanks

1. waterproof connector/ underground connector

A He needed a(n) for the wires he planned to bury.

B It is best to use a \_\_\_ when there's a possibility wires may get wet.

2. grounding connector / winged connector

A Using a is a good way to prevent shocks.

B A is easier to tighten than other types.