**План-конспект урока**

Тема: «Наука и Достижения»

**Группа:** Э-11-22

Тип урока: комбинированный

Формы: фронтальная (работа с учебным материалом); индивидуальная (выполнение упражнений, ответы на вопросы, тест на соответствие, рассказ монологического высказывания), групповая (работа в парах).

Техническое обеспечение: интерактивная доска, компьютер.

Цель урока:

1. Образовательная - систематизация и обобщение ранее изученного студентами материала по теме «Достижения в области науки и техники».

2. Развивающая - развивать фонематический и интонационный слух, внимание, воображение, языковую догадку у студентов, развивать речевую реакцию и готовность вступать в разговор на английском языке.

3. Воспитательная - совершенствование навыков совместной деятельности; развитие чувства коллективизма, умения слушать товарищей.

Оборудование: ТСО, учебники, раздаточный материал.

**ХОД УРОКА**

**1.** **Организационный момент** (Запись урока в журнале. Подготовка рабочего места. Создание проблемных ситуаций) (1-5 мин.)

*Good morning, dear students! I am glad to see you*! *How are you? I am glad you are fine, because you should be ready for our unusual lesson today. Who is absent today?*

**2.Фонетическая разминка**

*Look at the blackboard and read the* tongue twister:

|  |
| --- |
| How much wood  Could a woodchuck chuck  If a woodchuck could chuck wood? |

***3.***Постановка цели и задач урока

Look at the pictures in the word cloud. *Did you guess what we are going to speak about? Yes, you are right: about Science and achievements.*

**4. Изложение нового материала, применяемая методика** (15 мин). Работа со словами.

***Преподаватель:***Look at the board , Let`s read and write new words. The first word is….

The steam engine |ˈendʒɪn| паровой двигатель

The suspension bridge |səˈspenʃ(ə)n| подвесной мост

The pneumatic tyre |njuːˈmætɪk| пневматическая шина

The scheduled flight |ˈʃedjuːld| рейсовый полёт

The jet engine реактивный двигатель

The hydrogen fuel |ˈhaɪdrədʒ(ə)n| водородное топливо

The tablet |ˈtæblɪt| планшет

artificial |ɑːtɪˈfɪʃ(ə)l| искусственный

liquid repellent coating |ˈlɪkwɪd| |rɪˈpel(ə)nt| водонепроницаемое покрытие

sustainable |səˈsteɪnəb(ə)l| устойчивый, экологичный

significant |sɪɡˈnɪfɪk(ə)nt| знаменательный, важный

to develop развивать, совершенствовать

to improve улучшать, совершенствовать

to impact on влияние на

to invent изобретать, создавать

Can you make the sentences using new words/ phrases?

***5. Преподаватель:***Continue our work with the words. You are going to watch a video about some famous examples of British innovation: <https://www.youtube.com/watch?v=PXsZ6IV0dLM>

Some of these examples of innovation are included in the table below. Cross out each inventions that appears on the video (приложение 1).

|  |  |  |  |
| --- | --- | --- | --- |
| the television set | the first scheduled  international flight service | iPod design | the camera |
| the car | the first automatic landing with  passengers | the World Wide Web | the motor racing  circuit |
| the supersonic passenger  plane | Formula One | nuclear power | the computer |

Which inventions were not mentioned?

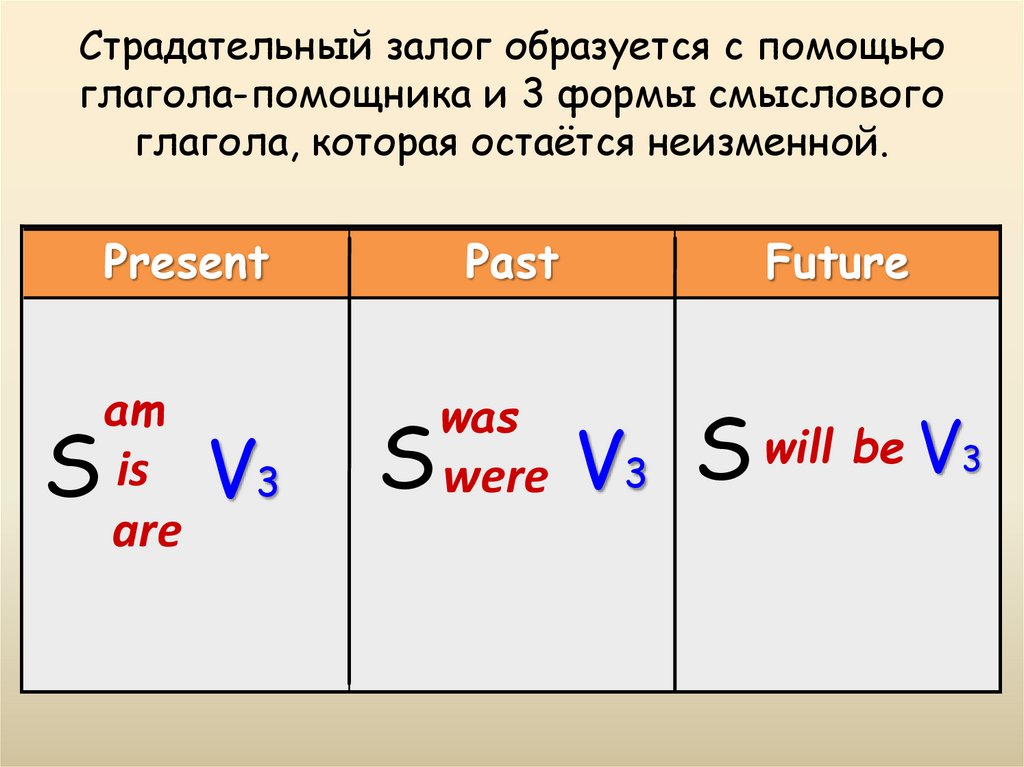
When were they invented?

6**. Закрепление изученного материала, применяемая методика**

Преподаватель: Before we do **next** exercise, Let`s repeat (презентация) Grammar focus.

The passive voice. When we talk about inventions and discoveries, we often use the passive voice. This is because we want to make the object (the thing which ‘receives’ the verb) the main focus of the sentence.

The form of the past simple passive is: **subject + was/were + past participle.**



Обучение самостоятельному поиску необходимой информации.

Now let’s read about British innovation in transport. There are 7 examples of the passive structure in the

Reading text. Write them on the lines below (the first one has been done for you). (приложение 2).

|  |
| --- |
| There are 7 examples of the passive structure in the Reading text. Write them on the lines below (the first one has been done for you). |
| 1 In 1765, the steam engine **was developed** by the Scotsman James Watt |
| 2 The jet engine was invented by Frank Whittle |
| 3 The Penny Farthing bicycle was invented in 1871 |
| 4 It was named after the ‘penny’ |
| 5 the pneumatic tyre was invented in 1885. |
| 6 In 2005, the hydrogen fuel cell motorbike was designed to address this problem. |
| 7 The subway train was invented in 1865 |

British innovation in transport. Throughout the years, British inventors have made a significant contribution to transport, and this continues to this day. From tractors to trains, the steam engine was a popular way of powering all kinds of machinery during the industrial revolution. In 1765, the steam **engine was developed** (by the Scotsman James Watt and his contemporaries) to greatly improve its efficiency. This had a huge impact on industry in Britain and throughout the world, and later, in 1928, Britain pioneered another type of engine. The jet engine was invented by Frank Whittle –the man who some people say ‘shrank the world’ by enabling people to travel by aircraft. Before cars, cycling was a preferred method of getting around. The Penny Farthing bicycle was invented in 1871 by James Starley, and was very popular in Victorian times. It was named after the ‘penny’ (a large coin) and the ‘farthing’ (a smaller coin) because the front wheel was much bigger than the back wheel, and therefore the bicycle represented the two coins in appearance. Riding a bike became a more comfortable experience when the pneumatic tyre was invented in 1885. Since then, pneumatic tyres have become ubiquitous and are now used on all

modern bikes –including motorbikes. Unlike environmentally friendly bicycles, however,

motorbikes produce pollutants which some people believe are responsible for global warming. In 2005, the hydrogen fuel cell motorbike was designed to address this problem. Although the current price for this kind of motorbike is very high, they will become more affordable as demand for them increases, and scientists predict that, in the future, all major car manufacturers will be mass-producing hydrogen fuel vehicles. Londoners, and visitors to the capital city, are likely to be very familiar with ‘The Tube’, which carries more than one billion passengers every year. The subway train was invented in 1865 and London was the first city to have an underground railway system. Countries throughout the world soon replicated the idea and there are now approximately 160 similar systems in operation internationally. In the future, transport may be taken to a much greater extreme and, in the same way that Frank Whittle shrank the world with the jet engine, spacecraft looks set to shrink the universe. The idea of space travel was invented in 2009 and people have already bought tickets for the British company Virgin space flights, which are scheduled for 2013.

***7. Преподаватель:***Now we are going to listen to the stories about some inventions.

Be attentive while listening to the information in order to answer the questions. (Просмотр и прослушивание презентаций учащихся.)

8**. Развитие навыков аудирования.** Let`s Listen

(приложение 3).

Listen to 5 speakers and choose what they are talking about:

1/ Speaker\_\_\_\_\_\_\_tells about his/her favourite gadget.

2/ Speaker\_\_\_\_\_\_\_explains why gadgets can be useful.

3 /Speaker\_\_\_\_\_\_\_does’t think that using gadgets a lot is a great idea.

4/ Speaker\_\_\_\_\_\_\_talks about the latest technologies.

5/ Speaker\_\_\_\_\_\_\_tells how he\she taught their grandparents to use gadgets.

***Студенты:*** работают с заданием.

**9**. Рефлексия

*Dear students, I want you to express your opinion of the lesson completing the following sentences:*

Today I have learnt …

It was interesting to know that …

I want to know more about …

*Then our lesson is over. Your marks are… Thank you for your attention and good-bye.*

Your home task will be to write down the correct form of the words in brackets

**Supplement 2**

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| The Internet, 1………….. of computers covering the entire planet, allows people to 2……….. almost any information located anywhere in the world at any time. Its 3………… on business, communication, economy, entertainment and even politics are great. The Internet is such a 4……… invention that we’ve probably only begun to see the  effects it will have on 5……………… At the same time, some fear that our ability to 6………………………………… ,work, play and do business via the Internet breaks down our local communities and causes us to become socially isolated. | communicate  the world  a network  effects  to access  powerful |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| Computers are able to make complicated mathematical 1…………………… at an incredible rate of speed. When they operate under the 2……………….. of skilled programmers, computers can accomplish amazing feats. Some high-performance military 3 …………. wouldn’tbe able to fly without constant computerized adjustments. Computers performed the sequencing of human 4……………. , let us put spacecraft into orbit, control medical testing 5……………………….  And create the complex visual imaginary used in films and 6………….. | video games  calculations  aircraft  instructions  genome  equipment |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| The bulb works by transmitting 1…………………………… through a wire with high resistance. The light bulb 2 …………….. the world by allowing people to work at 3……………………………………. places. It was actually  4………………………… that was built to provide electricityto every home and business that changed the world. Today our world is filled with 5…………………………………………….. than we can plug in anywhere.  We have the 6…………………………… to thank for in. | powered devices  night or in dark  light bulb  the infrastructure  changed  electricity |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| The automobile’s effect on commerce, society and culture is hard to overestimate. Most of us can 1…………………………………………. and go wherever we want whenever we want, effectively expanding the size of any community to the distance we’re willing to 2………………………..  or visit friends. Our cities are largely designed and 3…………. around  automobile access. The auto 4………………. has fueled enormous  5 …………………………………. worldwide, but it’s also generated a lot of  6………………………………… . | pollution  jump in our car  economic growth  industry  drive to shop  built |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| It was the 1……………………… engine developed by Richard Trevithick and others that allowed for steam engines small enough to 2………………… a train. Steam engines 3………… factories that made the rapid production of goods possible, they powered the trains and4……………… that carried those goods across 5 …………….. .Most power plants in the world 6……………………. electricity using steam turbines. | high-pressure steam  steamships  power  generate  power a train  the globe |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| Radio and television were new 1………………………………. in communications because they 2…………………….. a signal broadcaster to 3………………………….. to thousands or even millions of recipients as long as they were equipped with 4………………… . | receivers  landmarks  allowed  send messages |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| The ability to keep food 1…………. for prolonged periods drastically changed the food 2………………………….. industry and eating 3……………..of people around the 4…………. . Now, wehave easy access to 5……………….. meats and dairy products even in the hottest summer months. | fresh  production  cold  habits  world |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| The printing press allowed a lot of 1……………………. to be recorded and spread throughout the 2 …………….. . Books had been very expensive before, but mass 3…………………….. brought the price down. The printing press is probably 4…………………………… for many other inventions. The diffusion of knowledge it 5……………….. gave billions of people the education they needed to create their own 6………………………….. | inventions  information  production  world  responsible  created |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| 1 ……………….. is another invention so ancient that we don’t know who first developed it. The wheel made the 2 ………………. of goods much faster. However, if it had been used only for transportation, the wheel wouldn’t have been as much of a 3…………………………….. as it was. It can be used for a lot of 4 …………… other than sticking them on a cart to carry things. A huge amount of modern 5………………………….  still depends on the wheel. | The wheel  technology  things  world-changer  transportation |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
| Read the information and complete the sentences. | Fill the words |
| Plows made the work 1………………………….. . Improvements in the plow’s design made 2…………………….. so efficient that people could harvest more food than they needed to 3……………………. .The plow is 4…………………….. for creation of human 5……………………………………. . | easier and faster  civilization  responsible  farming  survive |

What is the invention? Who was it invented by? Why is it important?

|  |  |
| --- | --- |
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|  |
| --- |
| British innovation in transport.  Throughout the years, British inventors have made a significant contribution to transport, and this continues to this day. From tractors to trains, the steam engine was a popular way of powering all kinds of machinery during the industrial revolution. In 1765, **the steam** **engine was developed** (by the Scotsman James Watt and his contemporaries) to greatly improve its efficiency. This had a huge impact on industry in Britain and throughout the world, and later, in 1928, Britain pioneered another type of engine. The jet engine was invented by Frank Whittle –the man who some people say ‘shrank the world’ by enabling people to travel by aircraft. Before cars, cycling was a preferred method of getting around. The Penny Farthing bicycle was invented in 1871 by James Starley, and was very popular in Victorian times. It was named after the ‘penny’ (a large coin) and the ‘farthing’ (a smaller coin) because the front wheel was much bigger than the back wheel, and therefore the bicycle represented the two coins in appearance. Riding a bike became a more comfortable experience when the pneumatic tyre was invented in 1885. Since then, pneumatic tyres have become ubiquitous and are now used on all modern bikes –including motorbikes. Unlike environmentally friendly bicycles, however, motorbikes produce pollutants which some people believe are responsible for global warming. In 2005, the hydrogen fuel cell motorbike was designed to address this problem. Although the current price for this kind of motorbike is very high, they will become more affordable as demand for them increases, and scientists predict that, in the future, all major car manufacturers will be mass-producing hydrogen fuel vehicles. Londoners, and visitors to the capital city, are likely to be very familiar with ‘The Tube’, which carries more than one billion passengers every year. The subway train was invented in 1865 and London was the first city to have an underground railway system. Countries throughout the world soon replicated the idea and there are now approximately 160 similar systems in operation internationally. In the future, transport may be taken to a much greater extreme and, in the same way that Frank Whittle shrank the world with the jet engine, spacecraft looks set to shrink the universe. The idea of space travel was invented in 2009 and people have already bought tickets for the British company Virgin space flights, which are scheduled for 2013. |
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