Урок 13
Тема: Історія виникнення першого автомобіля.
Опрацювати текст.
Домашнє завдання: підготувати усне повідомлення по темі.

Who invented the automobile?

This question does not have a straightforward answer. The history of the automobile is very rich and dates back to the 15th century when Leonardo da Vinci was creating designs and models for transport vehicles. There are many different types of automobiles – steam, electric, and gasoline – as well as countless styles. Exactly who invented the automobile is a matter of opinion. Earlier accounts often gave credit to Karl Benz, from Germany, for creating the first true automobile in 1885/1886. However, our knowledge of the invention of the true automobile continues to evolve. The story of the invention of the automobile has become enriched with various other figures who played a part in its history.

Inventor	Date	Type/Description	Country
Nicolas-Joseph Cugnot (1725-1804)	1769	STEAM / Built the first self propelled road vehicle (military tractor) for the French army: three wheeled, 2.5 mph.	France
Robert Anderson	1832-1839	ELECTRIC / Electric carriage.	Scotland
Karl Friedrich Benz (1844-1929)	1885/86	GASOLINE / Automobile powered by an internal combustion engine: three wheeled, four cycle, engine and chassis form a single unit.	Germany Patent DRP No. 37435
Gottlieb Wilhelm Daimler (1834-1900) and Wilhelm Maybach (1846-1929)	1886	GASOLINE / First four wheeled, four-stroke engine- known as the “Cannstatt-Daimler.”	Germany
George Baldwin Selden (1846-1922)	1876/95	GASOLINE / Combined internal combustion engine with a carriage: patent no: 549,160 (1895). Never manufactured — Selden collected royalties.	United States
Charles Edgar Duryea (1862-1938)	1893	GASOLINE / First successful gas powered car: 4hp, two-stroke motor. The	United States

Inventor	Date	Type/Description	Country
and his brother Frank (1870-1967)		Duryea brothers set up first American car manufacturing company.	

Урок 15
Тема: Екологічний транспорт.
Опрацювати текст.
Домашнє завдання: підготувати письмову розповідь про екологічний транспорт в Україні.

ECOLOGICAL TRANSPORT

With the emergence of a huge number of cars on the roads of cities and towns, the issue of environmental protection has arisen, as car exhaust pollutes the air. Many men and women have decided to switch to more environmentally friendly and healthier forms of transportation. This includes bicycles, scooters, gyroscopes, roller skates, etc. Moreover, such means of transportation are cheaper than a car, they are much easier to operate, there are no traffic jams and there are no difficulties with parking. Nowadays, you can often see young and old people using this eco-friendly mode of transportation, as it is both healthy and environmentally friendly.

З появою величезної кількості машин на дорогах великих і маленьких міст постало питання про збереження навколишнього середовища, адже вихлопи від авто забруднюють повітря. Багато чоловіків та жінок вирішили перейти на екологічний та корисніший вид транспорту. До такого відносяться велосипеди, самокати, гідроскутери, роликові ковзани тощо. Причому такі засоби пересування дешевші за автомобіль, управляти ними набагато легше, немає заторів на дорозі і з паркуванням труднощів теж нема. Зараз часто можна побачити молодих та літніх людей на екологічному виді транспорту, адже це водночас приносить користь здоров'ю і не шкодить навколишньому середовищу.

Electric cars are in the greatest demand in the automotive market. They can be considered the transport of the future, albeit with a taste of the past (an electric car is older than an internal combustion engine, and its active development is due to toughening standards for emissions of harmful substances). - Найбільшим попитом на автомобільному ринку користуються електромобілі. Їх можна вважати транспортом майбутнього, хоча й з присмаком минулого (електромобіль старший за двигун внутрішнього згоряння, активний його розвиток припадає на посилення стандартів для викидів шкідливих речовин).

An electric vehicle is a car driven by one or more electric motors powered by batteries or fuel cells rather than an internal combustion engine. - Електромобіль — це автомобіль, що приводиться в рух одним або декількома електродвигунами з живленням від акумуляторів або паливних елементів, а не двигуном внутрішнього згоряння.

Урок 16

Тема: Умовні речення.

Опрацювати граматичний матеріал за посиланням
https://greencountry.com.ua/journal/read/yak-raz-i-nazavzhdi-zapamyatati-conditionals-abo-umovni-rechennya-v-anglijskij-movi

Домашнє завдання: вивчити правила утворення 2 і 3 типу умовного речення.

Урок 17

Тема: Еко - автомобілі.

1. Опрацювати текст.
2. Домашнє завдання: виписати в робочий зошит нову лексику.

What is an Eco-car?

It is a device that allow us to decrease fuel consumption, reducing greenhouse emissions and at the same time increase life expectancy and power of any combustion engine (cars, motorcycles, trucks, buses, machinery, boats, generators…) does not contain either chemical products nor MAGNETS, avoiding in this way magnetic chaos and/or negative effects due to devices based on magnets. consists of a set of minerals when in contact with the fuel used in internal or external combustion engines that reacts by inhibiting the influence of external magnetic / radio-electric / electromagnetic fields. An electric car is an automobile that is propelled by one or more electric motors, using electrical energy stored in batteries or another energy storage device. Electric motors give electric cars instant torque, creating strong and smooth acceleration.

The first electric cars were produced in the 1880s Electric cars were popular in the late 19th century and early 20th century, until advances in internal combustion engines and mass production of cheaper gasoline vehicles led to a decline in the use of electric drive vehicles. The energy crises of the 1970s and 1980s brought a short-lived interest in electric cars; although, those cars did not reach the mass marketing stage, as is the case in the 21st century. Since 2008, a renaissance in electric vehicle manufacturing has occurred due to advances in batteries and power management, concerns about increasing oil prices, and the need to reduce greenhouse gas emissions. Several national and local governments have established tax credits, subsidies, and other incentives to promote the introduction and adoption in the mass market of new electric vehicles depending on battery size and their all-electric range.

Benefits of electric cars over conventional internal combustion engine automobiles include a significant reduction of local air pollution, as they do not emit tailpipe pollutants, in many cases, a large reduction in total greenhouse gas and other emissions (dependent on the fuel used for electricity generation), and less dependence on foreign oil, which in several countries is cause for concern about vulnerability to oil price volatility and supply disruption. But widespread adoption of electric cars faces several hurdles and limitations, including their higher cost, patchy recharging infrastructure (other than home charging) and range anxiety (the driver's fear that the electric energy stored in the batteries will run out before the driver reaches their destination, due to the limited range of most existing electric cars). Recharging can take a long time, however, for long distance driving many cars support fast charging that can give around 80% charge in half an hour using public fast chargers.

As of November 2014, the number of mass production highway-capable all-electric passenger cars and utility vans available in the market is limited to over 30 models, mainly in the United States, Japan, Western European countries and China. Pure electric car sales in 2012 were led by Japan with a 28% market share of global sales, followed by the United States with a 26% share, China with 16%, France with 11%, and Norway with 7%. The world's top selling

highway-capable electric car ever is the Nissan Leaf, released in December 2010 and sold in 35 countries, with global sales of over 158,000 units up until December 2014.