**Тема:** «История фундаментальных открытий в области физики. Переменный ток».

**Цель:** Повторить грамматический материал по теме «физика, явление электричества».

**Задачи:** Отработать навык работы (в т.ч. перевода) с профессиональной лексикой по теме блока, повторить тематический материал, актуализировать имеющиеся знания.

**Специальность:** ОУП.03; ОГСЭ.03

**Время выполнения:** 90 минут

1. **Study the new words.**
2. **Read the text.**
3. **Do the tasks.**
4. **Study the new words and give a translation:**

**Glossary:**

contribution

elaborate

recognition

alternating current

direct current

widespread

advancements

feasible

a rift

odd

attention

a pivotal

dominant

## AС/DC

Nikola Tesla was a man with big ideas, if you couldn’t tell by the 300 patents to his name*. Unfortunately, he was way ahead of his time and while a lot of his more elaborate ideas theoretically worked, they never really panned out.* Still, while he never received the recognition of his chief rival Thomas Edison, the man was a brilliant inventor who gave the world some amazing and pioneering innovations.

Without question, the most important inventions from Nikola Tesla involve his contributions to alternating current (AC). It’s essential to note that he did [not invent or even discover AC](http://www.forbes.com/sites/alexknapp/2012/05/18/nikola-tesla-wasnt-god-and-thomas-edison-wasnt-the-devil/), but his inventions made AC applicable for widespread use, helping to electrify the world.

The story of how Tesla’s AC current came to be the dominant power system is impossible to tell without [talking about Thomas Edison](https://www.toptenz.net/top-10-inventors-who-made-modern-life-possible.php). In his early career Tesla worked for Edison, whose company had developed direct current . *DC is similar to a battery, in that it only sends power out. The problem with DC is that the electricity loses power as it gets farther out.* That’s when Tesla developed his advancements in AC, which not only sends power out, but also brings power back to the source. This made it much more feasible to send large amounts of energy over a large area.

*Edison hated AC and thought that Tesla was completely wrong on the topic, leading to a rift between*[*the two*](http://mentalfloss.com/article/30140/acdc-tesla%E2%80%93edison-feud)*.* While Tesla was unemployed, he worked odd jobs until he was able to raise money for the Tesla Electric Company. His work caught the attention of engineer and businessman George Westinghouse, who bought most of Edison’s patents involving AC.

A pivotal moment in the history of electricity came down to lighting the Chicago World’s Fair in 1893. Edison and Westinghouse both submitted quotes with Edison saying he could light the whole fair for $554,000, while Westinghouse said it could be done for $399,000. Westinghouse [won the contract](http://energy.gov/articles/war-currents-ac-vs-dc-power), and after the fair AC became more popular and, eventually, the dominant electrical system that we still use today.

**Do the following tasks:**

1. **Translate the lines given in Italics into Russian.**
2. **Decide which statement is true, false or not stated:**

1. Tesla used to work for Edison
2. Tesla invented direct current
3. Tesla wanted to prove that electricity can be transmitted via ether
4. DC means, the source sends power out, and brings power back
5. George Westinghouse has bought most of Tesla’s inventions
6. Wistinghouse’ offer was more profitable, than Edison’s one
7. **Find the equivalents to the following word combinationin the text:**
8. Важное замечание\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
9. Доступно для всеобщего использования\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
10. **Основной системой энергопередачи\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**
11. Передавать большое количество энергии\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
12. Тесла был безработным\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
13. Его работа привлекла внимание\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
14. Решающий момент в истории электричества\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. **Find synonyms to the followings:**

|  |  |
| --- | --- |
| widespread | bizarre |
| pivotal | possible |
| odd | development |
| feasible | a divide |
| advancements | a gift |
| a rift | illumination |
| contribution | popular |
| light | crucial |

1. **Translate into English using your glossary:**
2. Это был переломный момент в истории электричества
3. Разногласия привели к расколу и конфликту двух ученых
4. Никола Тесла сделал неоценимый вклад в современную науку
5. Он не получил научного признания при жизни
6. Теперь его технологии широко распространены

[**https://www.youtube.com/watch?v=xP76q3quHb0&ab\_channel=Biography**](https://www.youtube.com/watch?v=xP76q3quHb0&ab_channel=Biography)