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**Programma Lingua Inglese : Docente Gerardina Sorrentino**

**V APP**

**a.s. 2021-2022**

**Testo : English for New Technology ed. Pearson**

**Unit 3: Electromagnetism and Motors**

Electric Cars vs conventional cars

The electric Motor , types and variations

**Unit 4 : Methods of Generating Electricity:**

Wind Power, Water Power, Steam Power, Solar Power (direct and indirect methods); Photovoltaic Cells.

Renewable and Non-Renewable Sources of Energy.

Producing High- Pressure Steam:

Burning Fossil Fuels, Nuclear Fission, Solar Furnace, Geo-thermal, Biomass, Biogas.

**Unit 5: The Distribution Grid**

The domestic circuit

The Smart Grid

The Transformer

Danger of Electricity

**Unit 6: Electronic Components**

Basic electronic components

The Transistors

Semiconductors

The father of the transistor

Sylicon Valley

**Unit 7: Electronic System**

Conventional and integrated Circuit

Amplifiers and Oscillators

**Unit 8 : Microprocessors**

What is a microprocessors ?

How a microprocessors works ?

How microchips are made?

The end of Moore’s low

**Unit 9 : Automation**

How automation works

How robots works

Automation in the home and at work

Artificial intelligence and robots

**Uda:** 1) Safety at work

2) Renewable energy

3) European Union

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