###### LINGUA INGLESE

###### PROGRAMMA SVOLTO

###### Classe V Manutenzione/curv. Elettrico-Elettronico

###### IPSIA Siderno- sede coordinata di Locri

###### a.s.2015/2016

###### CONTENUTI

**Grammar**: durante il corso dell’anno sono state riproposte e approfondite le strutture grammaticali studiate negli anni precedenti.

**Hystorical and Literary topics:**

Oscar Wilde

The First World War

The Second World War

Modernism: James Joyce and Virginia Woolf

**Module 1: Mechanic and Machines**

Mechanical technology: power-generating machines and power-driven machines

Materials: metals, non-metals, metalloids

Materials properties

Machine tools

Metal working: hot forming processes, cold forming processes, joining processes

The invention of the automobile

The Industrial Revolution

The four-stroke internal combustion engine

The diesel engine

The hydrogen engine

Engine subsystems

**Module 2: Exploring Electricity**

Static electricity

Electric current

Magnetism

Electromagnetism

Electric circuits: main components

Types of electric circuits: circuits in series and circuits in parallel

Open/closed circuits

Resistors

Alternators

Batteries

Transformers

Transistors (BJT/FET)

Sensors

Transducers

Diodes

Electrical safety

Electric motor

**Module 3: Alternative energies**

Renewable and nonrenewable sources of energy

Capital sources of energy: fossil fuels and renewable energy sources

Biomass

Solar energy: the active method and the passive method

Photovoltaic cells

Solar panels

Wind energy

Geothermal energy

Hydroelectric energy

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La docente

Prof.ssa Mariella Napoli