

ANNO SCOLASTICO 2022-2023

PROGRAMMA DIDATTICO

Insegnante: Mugno Matteo

Classe: 5S1 Meccanica-Meccatronica

Materia: Inglese

Unit 1

- What is engineering?
- Mechanics
- Professional welders
- The importance of safety
- Spot the hazard
- Assess the risk
- Safe education
- Safety in the workplace

Unit 2

- Fossil fuel sources
- Petroleum: the black gold
- Non-fossil fuel sources: nuclear energy
- Inexhaustible sources
- Solar energy, hydroelectric power, tidal energy, biogas and biomass
- Wind power
- Geothermal energy
- Pollution

Unit 3

- What is material science?
- Properties of materials: mechanical properties, thermal properties, electrical-magnetic properties
- Metals: ferrous and non-ferrous metals
- Plastics
- Rubber
- Gaskets
- Kevlar

Unit 5

- Machine tools
- Machine tools classification

- The lathe
- Drilling
- Boring
- Milling
- Grinding
- Planers and shapers
- Metal-forming machine tools
- Non traditional machining processes

Unit 7

- Drive train
- The four-stroke engine
- The two-stroke engine
- The diesel engine
- Biofuels
- Electric and hybrid cars
- Fuel cell vehicles

Educazione Civica:

Nell'ambito dell'insegnamento trasversale dell'educazione civica, sono stati affrontati i seguenti argomenti: *Rights and Responsibilities* e *Fake news*.

Firma docente



Firma rappresentante di classe

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Ignacio Roy