

IIS “GUGLIELMO MARCONI”
LINGUA E CULTURA INGLESE
CLASSE III sez. A (indirizzo meccanica/meccatronica)

a.s. 2022/2023

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LIBRI DI TESTO ADOTTATI:

- ✚ “**Grammar in Progress**”, di Bonci e Howell, ed. Zanichelli;
- ✚ “**Mechanics – Skills and Competences. English For Technology**”, di B. Franchi e H. Creek, ed. Minerva scuola.

PROGRAMMA SVOLTO

SECTION 1 – THE WORLD OF ENGINEERING

Unit 1 – First steps into the world of Engineering

- What is engineering?
- Communicating technical information
- The language of Engineering
- Manufacturing production processes
- Stages in the development of a new product

Unit 2 – Materials

- Materials Engineering
- The origins of materials
- Properties of materials
- Classes of materials
- Materials in Engineering
- Composite and smart materials
- New frontiers: research and innovation into advanced materials

Unit 3 – Drawing. How to illustrate a design

- Sketching, drawing, and drafting tools
- Measuring equipment
- Standards and conventions
- Mechanical Engineering drawings
- Using CAD for drawing.

SECTION 5 – ENERGY – ENGINES AND MECHANICAL ENGINEERING SYSTEMS

Unit 13 – Energy and Environment

- Sources of energy
- Non-renewable energy: fossil fuels
- Why are greenhouse gases dangerous?
- Alternative energies and nuclear power
- Solar energy
- Hydroelectric power
- Wind power
- Ocean energy: tidal and wave power
- Bioenergy: biomass and biofuels

Unit 15 – Engines and car technology

- Introducing the study of an engine
- How car engines work
- Diesel engines
- Electric vehicles: battery electric cars
- Hybrid cars
- Electric cars in the EU

EDUCAZIONE CIVICA

- Agenda 2030 and climate change.
- Industrial Revolution.

GRAMMAR

- Past simple
- Present perfect
- Past continuous