



# ISTITUTO DI ISTRUZIONE SUPERIORE

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## PROGRAMMA SVOLTO

**ANNO SCOLASTICO 2023/2024**

CLASSE **3<sup>A</sup>** SEZIONE **E** TECNOLOGICO - MECCANICA E MECCATRONICA

|                                 |                           |
|---------------------------------|---------------------------|
| DOCENTE<br><b>ROBERTO FANNI</b> | MATERIA<br><b>INGLESE</b> |
|---------------------------------|---------------------------|

### Libro di testo

Di Rocchi M / Ferrari C.

**I MECH** English for Mechanical Technology

Volume unico

Hoepli

Ore settimanali: **3**

Grammar review on:

- ✓ Present Simple – verb *to be* and common verbs (with adverbs of frequency)
- ✓ Present Continuous
- ✓ Present Simple vs Present Continuous
- ✓ Past Simple – verb *to be* and common verbs: regular and irregular verbs
- ✓ Past Continuous
- ✓ Past Continuous vs Past Simple
- ✓ Future tenses:
  - *to be going to*
  - Simple Future with *will*
  - Present Continuous
  - Present Simple
- ✓ Present Perfect Simple (with adverbs of time, *ever* and *never*, *been* vs *gone*, *since* and *for*)
- ✓ Present Perfect Simple vs Past Simple

From the text adopted:

### **INTRODUCTION - What is Mechatronics?**

- ✓ The rise of mechatronics
  - The profile of the Mechatronic technician
  - Where Mechatronic technicians work

### **UNIT 1 - Materials in engineering**

- ✓ Materials and their properties
  - Types of materials
  - Properties of materials: physical and chemical properties
  - Mechanical properties
- ✓ Metals
  - The properties of metals
  - Ferrous metals and alloys
  - Non-ferrous metals and alloys

- ✓ Polymers: plastics and rubbers
  - Polymers
  - Thermoplastics
  - Thermosetting plastics
  - Rubbers
- ✓ Other types of materials
  - Ceramics
  - Composites
  - What are composites made of?
  - What are the applications of composites?
  - Smart materials

## **UNIT 2 - Mechanical drawing**

- ✓ Technical drawing
  - What is technical drawing?
  - Tools and instruments
- ✓ Lines and other conventions
  - Types of lines
  - Standardized conventions
- ✓ Technical representations
  - Different types of projections
  - Central projections
  - Parallel projections
- ✓ CAD (Computer Aided Design)
  - What is CAD?

### **Educazione Civica:**

Alternative engines: electric and hybrid cars. Tesla electric truck.

GUSPINI, 07/06/2024

IL DOCENTE

Prof. Roberto Fanni