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|  |  | **I I S *“Ettore Majorana”***  Via A. De Gasperi, 6 - 20811 Cesano Maderno (MB) |

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| **PROGRAMMA SVOLTO** |

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| **CLASSE** | 5EC | **DISCIPLINA** | INGLESE |
| **DOCENTE** | Prof. GANGI CHIODO MADDALENA | **A.S.** | 2022/2023 |

**Libro di testo**: Kiaran O’Malley, **“English for New Technology”**, Pearson-Longman

**Unit 3 Electromagnetism and Motors**

Types of electric motors ( pag.36)

Dc motors; AC Motors

**Unit 5 Distributing Electricity**

The transformer ( pag.58)

Key people : Edison, Tesla and the AC/DC battle (pag. 60)

How to do it : Act in emergencies ( pag.65)

Safety Signs (pag.66)

**Unit 6** **Electronic components**

Applications of electronics ( pag. 72,73)

Key words (pag.73)

Semiconductors (pag. 74)

The Transistor ( pag . 75)

Basic Electronic components ( pag. 76, 77)

Working with Transistors (pag. 78,79)

Key People: Milestones in electronics (pag. 80)

William Shockley, the father of the transistor (pag. 81)

**Unit 7** **Electronic System**

Conventional and integrated circuits (pag. 84, 85)

Key words (pag 85)

How an electronic system works (pag 86)

Analogue and Digital, Binary Numbers, Advantages of digital (pag. 87)

Amplifiers (pag. 90)

Oscillators ( pag. 91)

How to Do it: Read a data sheet ( pag. 92,93)

**Unit 8 Microprocessors**

What is a microprocessor? (pag. 96,97)

Key words (pag.97)

The microprocessor (pag. 98)

Logic Gates ( pag. 99)

Key People: The race to build the integrated circuit ( pag. 102 )

How microchips are made (pag. 104,105)

**Unit 9 Automation**

What is automation? ( pag. 108, 109)

Key words (pag. 109)

How automation works (pag. 110)

Automation in operation : a heating system ( pag. 111)

How to do it : Design a burglar system (pag. 112)

KEY people : The development of automation ( pag.113)

How a robot works (pag.114)

Varieties and uses of robots ( pag 116)

Robots in manufacturing ( pag 117)

Home automation : Domotics, Automation at home and at work ( pag.122)

**Inter-disciplinary activities**:

The King’s Speech

Tempi moderni

#### Brani di comprensione scritta e orale in preparazione alla prova INVALSI

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| Cesano Maderno, 04/05/2023 | | Firma Docente |  |
| Firme di due studenti |  | | |