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| **PROGRAMMA SVOLTO** |
| **DOCENTE****Frangi Anna Maria** | **MATERIA****Inglese** | **CLASSE****5MM2** |
| * **“Animal Farm”, by G.Orwell (svolto presenza/DDI)**
	+ Plot and characters
	+ Historical background
	+ Animation movie (1954)
* **History of Materials and Machines (svolto presenza/DDI)**
	+ The First Industrial Revolution
	+ The Steam Engine
	+ The Second Industrial Revolution
	+ Coketown (description of the industrial town by C.Dickens)
* **Shaping Materials conventionally (svolto presenza/DDI)**
	+ Casting
	+ Rolling, Extrusion and Drawing
	+ Machine tools and CNC machine tools
	+ Turning and Milling
	+ Drilling and Grinding
* **Shaping Materials unconventionally (svolto presenza/DDI)**
	+ Waterjet Machining (WJM) and Ultrasonic Machining (USM)
	+ Electrical Discharge Machining (EDM)
	+ 3D Printing
* **Safety (svolto presenza/DDI)**
	+ The importance of safety: hazards and risks
	+ Personal Protective Equipment
	+ Safety education: fire safety plan; fire extinguishers; evacuation drills
	+ Safety signs: warning, prohibition, obligation
	+ Electrical hazards of welding
* **Vehicles and Engines (svolto presenza/DDI)**
	+ Main parts of a car; driving rules
	+ Main parts of an internal combustion engine
	+ The four-stroke petrol engine
	+ The two-stroke petrol engine
	+ The four-stroke diesel engine
	+ The dangers of diesel pollution (video)
	+ The electric car
	+ How Tesla is driving electric car innovation (article)
	+ Are electric cars really better for the environment? (video)
	+ Alternative engines: fuel cell vehicles, hybrid vehicles
* **Renewable Energy (svolto presenza/DDI)**
	+ Renewable and non-renewable energy sources
	+ Agenda 2030 – Goal 7 (affordable and clean energy)
	+ Wind, solar, tidal and hydropower
	+ The boy who harnessed the wind (movie)
* **Automation and robotics** (da svolgere dopo 15 maggio)
	+ Robotic arms
	+ Industrial robots
	+ Industry 4.0 and smart factory

 * **FCE format exercises (svolto presenza/DDI)**
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| **TESTI IN ADOZIONE**  |
| M. Robba – L. Rua, **MECHPOWER**, Edisco**FIRST FOR SCHOOLS TRAINER 2**, Cambridge |