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| **PROGRAMMA SVOLTO**ANNO SCOLASTICO 2023/2024 |
| **DOCENTE****Frangi Anna Maria** | **MATERIA****Inglese** | **CLASSE****5ME** |
| * **“Animal Farm”, by G.Orwell**
	+ Plot and characters
	+ Historical background
	+ Animation movie (1954)
* **History of Materials and Machines**
	+ The First Industrial Revolution
	+ The Steam Engine
	+ The Second Industrial Revolution
	+ Coketown (description of the industrial town by C.Dickens)
	+ Henry Ford: life and achievements
	+ How Ford built America – the man behind the automobile (YouTube video)
	+ Ford and Taylor’s scientific management (YouTube video)
* **Shaping Materials conventionally and unconventionally**
	+ Machine tools and CNC machine tools
	+ 3D printing
* **Safety**
	+ The importance of safety: hazards and risks
	+ Personal Protective Equipment
	+ Safety education: fire safety plan; fire extinguishers; evacuation drills
	+ Safety signs: warning, prohibition, obligation
	+ Accident at hydroelectric power plant (article)
* **Vehicles and Engines**
	+ Main parts of a car; driving rules
	+ Main parts of an internal combustion engine
	+ The four-stroke petrol engine
	+ The two-stroke engine
	+ The four-stroke diesel engine
	+ The dangers of diesel pollution (YouTube video)
	+ Fuel injection systems and turbochargers
	+ The electric car
	+ Are electric cars really better for the environment? (YouTube video)
	+ Alternative engines: fuel cell vehicles, hybrid vehicles
* **Automation and robotics**
	+ 5 coolest robots you can actually own (YouTube video)
	+ The dawn of industrial robotics: listening activity
	+ Robotic arms
	+ Industrial robots
	+ MIR robots (YouTube video)
	+ The future of robotics (article)
	+ What is Industry 4.0? (YouTube video)
	+ What is domotics?
* **Energy**
	+ What is energy?
	+ Renewable / Non-renewable energy sources
	+ Fossil fuels
	+ Primary and secondary energy sources
	+ Hydropower – Solar power – Wind power – Tidal power
* **Educazione Civica : Agenda 2030 goal 7 – Affordable and clean energy**
	+ The boy who harnessed the wind (movie)
	+ Saving energy
	+ The 3 R’s: Reduce, Reuse, Recycle

 * **FCE format exercises**
* **Invalsi Reading and Listening Tests**
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| **TESTI IN ADOZIONE**  |
| M. Robba – L. Rua, **MECHPOWER**, Edisco**FIRST FOR SCHOOLS TRAINER 2**, Cambridge |