

Istituto Tecnico Industriale Statale "Othoca" - A.S. 2022-23
CLASSE: 4^A PROGRAMMA DI: INGLESE / EDUCAZIONE CIVICA
DOCENTE: Mariangela Mura

Testo in adozione: **Mechatronix** (Giovanna Battistini-Elisa Cavalli, casa editrice Trinity Whitebridge).

PROGRAMMA SVOLTO

INGLESE:

SAFETY:

Safety in the workshop: key vocabulary, word formation and definition; objects used in the workshop; identifying mistakes in a workshop; safety inspector visit;

Workplace hazards and the most common dangers in the workplace; safety signs (colours, symbols, shape and pictograms) and types (mandatory, emergency and rescue, information signs);

PPE (definition, purposes, types - wearing the proper protective clothing and equipment - correct/incorrect clothing);

Workplace hazards (definition, from chemicals and fire); hazards and risks;

Safety rules when welding (protective clothing and risks); safety rules using ladders; accident report;

Dangers at home;

Safety and the EU (EU-OSHA and Napo animates films);

Fire drills and evacuation plan;

No one has to die at work (workshop fatalities).

ENGINEERING MATERIALS:

Materials contained in a washing machine;

Classification and main types of materials, properties of materials; mechanical properties;

Steels and steel-making (steps in the production steel), the steel-making furnace, heat treatments of steel;

The account of an experiment using two bars of steel with different carbon contents.

ENERGY / ENVIRONMENTAL ISSUES:

Definition of energy, different forms, energy production, why living organisms need energy; Energy: an enigma (video);

The History of energy: the most important moments in human history, different types of energy, inventions and discoveries.

Non-renewable energy sources (pros and cons of fossil fuels); alternative energy sources: definition, examples; pros and cons;

Protecting the environment: why is it so hard to cut dependence on gasoline?

Nuclear energy;

Hydropower plants: principle, basic components, function of a dam, disadvantages; the Hydrologic Cycle.

EDUCAZIONE CIVICA

Tematiche affrontate: la sicurezza sul posto di lavoro – rischi e pericoli, infortuni e morti; l'importanza del rispetto delle norme e della prevenzione; la legislazione italiana.

Testo: *No one has to die at work* (workplace fatalities – articolo del quotidiano inglese The Guardian).

ORISTANO, 10.06.2023