

Classe 2[^]O

Disciplina: **Fisica**

Docente: **Bernardi Cinzia**

Testi di riferimento:

S. Pople– Complete Physics – Oxford.

Sono stati svolti i seguenti capitoli:

Unit 6: Waves and sounds

- 6.01 : Transverse and longitudinal waves
- 6.02 : Waves effects
- 6.03 : Sound waves
- 6.04 : Speed of sound and echoes
- 6.05 Characteristics of sound waves
- 6.06 Ultrasound

Unit 7: Rays and waves

- 7.01 : Light rays and waves
- 7.02 : Reflection in plane mirrors (1)
- 7.03 : Reflection in plane mirrors (2)
- 7.04 : Refraction of light
- 7.05 : Total internal reflection
- 7.06 : Refraction calculations
- 7.07 : Lenses (1)
- 7.08 : Lenses (2)
- 7.09 : Camera, projector, and enlarger
- 7.10 : The human eye

Unit 8: Electricity

- 8.01 Electric charge (1)
- 8.02 Electric charge (2)
- 8.03 Electric fields
- 8.04 Current in a simple circuit
- 8.05 Potential difference
- 8.06 Resistance (1)
- 8.07 Resistance (2)
- 8.08 More about resistance factors
- 8.09 Series and parallel circuits (1)
- 8.10 Series and parallel circuits (2)
- 8.11 Electrical power
- 8.12 Mains electricity (1)
- 8.13 Mains electricity (2)
- 8.14 Electrical energy calculations

Unit 9: Magnets and currents (Principalmente a Bedgebury)

- 9.01 : Magnets
- 9.02 : Magnetic fields
- 9.03 : Magnetic effect of a current
- 9.04 : Electromagnets
- 9.05 : Magnetic force of a current
- 9.06 : Electric motors

Programma svolto nell'anno scolastico 2016/2017

Classe 2[^]O

Disciplina: **Fisica**

Docente: **Bernardi Cinzia**

- 9.07 : Electromagnetic induction
- 9.08 : More about induced currents
- 9.09 : Generators
- 9.10 : Coils and transformers (1)
- 9.11 : Coils and transformers (2)
- 9.12 : Power across the country

Unit 10: Electrons and electronics

- 10.01 : Electronic essentials
- 10.02 : More on components
- 10.03 : Transistors (1)
- 10.04 : Transistors (2)
- 10.05 : Logic gates (1)
- 10.06 : Logic gates (2)
- 10.07 : Electron beams (1)
- 10.08 : Electron beams (2)

Unit 11: Atoms and radioactivity

- 11.01 : Inside atoms
- 11.02 : Nuclear radiation (1)
- 11.03 : Nuclear radiation (2)
- 11.04 : Radioactive decay (1)
- 11.05 : Radioactive decay (2)
- 11.06 : Nuclear energy
- 11.07 : Fusion future
- 11.08 : Using radioactivity
- 11.09 : Atoms and particles (1)
- 11.10 : Atoms and particles (2)

Bologna, 15 giugno 2017

L'insegnante
Cinzia Bernardi