LS MORGAGNI
Via Fonteiana 125, 00152 Roma
a.s. 2021/2022 - Classe 2 Sez. C
Physics e Fisica - Programma svolto
Docente Laura Pinzi
Docente Madrelingua Ginny Prince

Conduction: Describe experiments to demonstrate the properties of good and bad thermal conductors
Convection
Thermal capacity
Melting and boiling

Radiation : Describe experiments to show the properties of good and bad emitters and good and bad absorbers of infra-red radiation
Light
Reflection of light
Perform simple constructions, measurements and calculations for reflection by plane mirrors.
Refraction of light
Describe an experimental demonstration of the refraction of light
Thin converging lens: Draw and use ray diagrams for the formation of a virtual image by a single lens

Sound : Describe an experiment to determine the speed of sound in air.
Simple phenomena of magnetism: Describe an experiment to identify the pattern of magnetic field lines, including the direction

Electric charge: Describe simple experiments to show the production and detection of electrostatic charges
Current: Use and describe the use of an ammeter, both analogue and digital.
Use and describe the use of a voltmeter, both analogue and digital.
Resistance: Describe an experiment to determine resistance using a voltmeter and an ammeter
Circuit Diagrams: Draw and interpret circuit diagrams
Series and parallel circuits
Calculate the combined e.m,f. Of several sources in series.
Calculate the effective resistance of two resistors in parallel.
Digital electronics
Describe the action of NOT, AND, OR, NAND, and NOR gates.
Design and understand simple digital circuits combining several logic gates.

Electromagnetic induction: Describe an experiment to demonstrate electromagnetic induction

Force on a current-carrying conductor:
Describe an experiment to show that a force acts on a current-carrying conductor in a magnetic field, including the effect of reversing: – the current – the direction of the field

LS MORGAGNI
Via Fonteiana 125, 00152 Roma
a.s. 2021/2022 - Classe 2 Sez. C
Physics e Fisica - Programma svolto
Docente Laura Pinzi
Docente Madrelingua Ginny Prince
Describe an experiment to show the corresponding force on beams of charged particles

---

INTEGRAZIONI al programma di Physics

Il punto materiale in movimento
I sistemi di riferimento
Il moto rettilineo
La velocità media e istantanea
Il grafico spazio-tempo
Le caratteristiche del moto rettilineo uniforme
Analisi del moto rettilineo uniforme attraverso i grafici spazio-tempo e velocità-tempo
Il moto vario su una retta
Le accelerazioni media e istantanea
Il grafico velocità tempo
Caratteristiche del moto uniformemente accelerato
Analisi del moto attraverso grafici velocità-tempo e spazio-tempo

Moto in due dimensioni.
Moto di un proiettile: equazioni del moto, traiettoria parabolica.
Moto circolare uniforme: velocità
tangenziale, velocità angolare, accelerazione centripeta, equazioni del moto, periodo, frequenza.