



ISTITUTO DI ISTRUZIONE SUPERIORE

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Sez. Linguistica

Anno Scolastico 2022/2023

Programma Svolto di Fisica

CLASSE 4AL

Docente: Michele Oddino Matteo

UNITÀ DIDATTICA 1 - Kinematics in two dimensions:

- Trajectory vs displacement in 2D
- Velocity & acceleration vectors
- Uniform circular motion (UCM)

UNITÀ DIDATTICA 2 - Work and energy:

- Work
- Power
- Energy
- Conservation of energy principle
- Kinetic energy (KE) & work-energy theorem
- Potential energy
- Gravitational potential energy (PE)
- Conservative forces

- Non-conservative forces
- Conservation of mechanical energy

UNITÀ DIDATTICA 3 - Universal gravitation:

- Kepler's 1st and 2nd law
- Kepler's 3rd law
- Newton's law of gravitation
- Gravitational acceleration
- Gravitational potential energy (U)
- Escape speed

UNITÀ DIDATTICA 4 - Temperature:

- Thermal equilibrium
- Measuring temperature
- Temperature scales
- Thermal expansion
- Linear expansion coefficient
- Thermometric properties of gases
- The zeroth law of thermodynamics
- Ideal gas
- Water: a special case

UNITÀ DIDATTICA 5 - Heat:

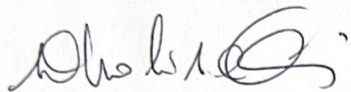
- Heat and work
- Energy transmission
- Conduction
- Convection
- Radiation
- Heat capacity and specific heat
- The calorimeter

UNITÀ DIDATTICA 6 - States of matter and changes of state:

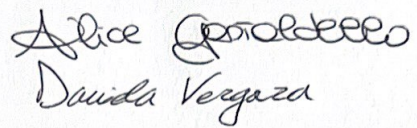
- Solid liquid and gas
- States of matter
- Changes of states
- Latent heat

Rivarolo Canavese, 07/06/2023

Prof. Micheletto Oddino Matteo

A handwritten signature in black ink, appearing to read 'Micheletto Oddino Matteo'.

I rappresentanti degli studenti

Two handwritten signatures in black ink. The first signature is 'Alice Garofalo' and the second is 'Daniela Vergara'.