

BRAINSHINE ACADEMY

Online
**HOME
TUITIONS**



9080138609

www.brainshineacademy.com

CLASSES WE OFFER

ONE-TO-ONE:

We allocate one teacher to only one student so that the student interact with teacher and learn the concepts thoroughly.

GROUP CLASS FOR 5 STUDENTS:

We allocate one teacher for group of 5 students. This promotes friendly competition and interactive classes while simultaneously maintaining an individual learning experience for each student.

GROUP CLASS FOR 10 STUDENTS:

We allocate one teacher for group of 10 students. All the features are the same as above group class and it is cost effective.

GOAL:

Make the students master the concepts deeply.

PRACTICE STYLE:

Let the students understand the concepts through explaining with real time examples.

TEACHING APPROACH:

Teacher cues the student to discover the answer.

The teachers here are highly experienced and well-qualified, having graduated from prestigious institutions such as IIT, NIT, IIIT, CLRI, Anna University, and others. Their expertise and strong academic background contribute significantly to the high-quality education provided.



What We Do?

At Brainshine Academy, we offer comprehensive range of online tutoring services designed to support students at every stage of their academic journey.

Why choose us?

Personalized learning: We provide tutoring sessions to each student's unique needs, learning style, and pace. Our tutors adapt their methods to ensure every lesson is both engaging and effective.

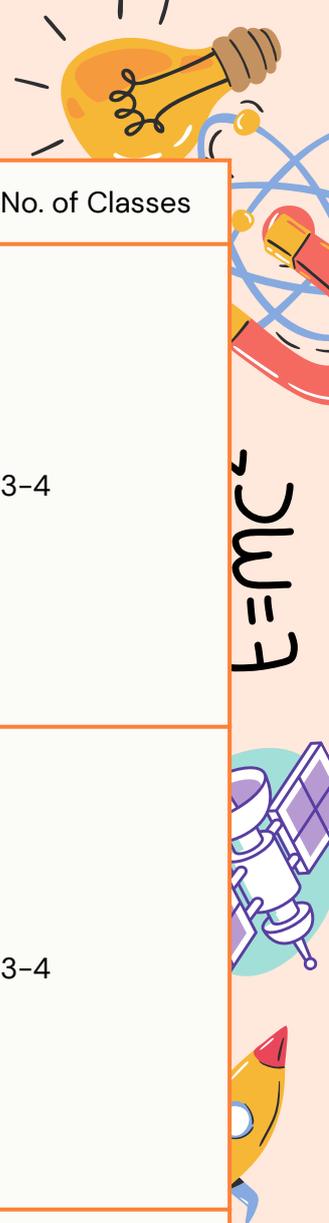
Test Preparation & Exam Strategies: Our test preparation services focus on strategy, practice, and review to help you succeed in your exams.

Progress Monitoring & Feedback: We track your progress and provide regular updates on your improvement. Our tutors give constructive feedback, recommend areas for further growth, and ensure you stay on track to meet your academic goals.

Homework Assistance: We offer tutoring sessions to support you with school projects, essays, and homework.



PHYSICS CURRICULUM



Topic	Sub Topic	No. of Classes
Electric Charges and Fields	Electric charges, Conservation of charge, Coulomb's law-force between two- point charges, forces between multiple charges; superposition principle and continuous charge distribution. Electric field, electric field due to a point charge, electric field lines, electric dipole, electric field due to a dipole, torque on a dipole in uniform electric field. Electric flux, statement of Gauss's theorem and its applications to find field due to infinitely long straight wire, uniformly charged infinite plane sheet and uniformly charged thin spherical shell (field inside and outside).	3-4
Electrostatic Potential and Capacitance	Electric potential, potential difference, electric potential due to a point charge, a dipole and system of charges; equipotential surfaces, electrical potential energy of a system of two-point charges and of electric dipole in an electrostatic field. Conductors and insulators, free charges and bound charges inside a conductor. Dielectrics and electric polarization, capacitors and capacitance, combination of capacitors in series and in parallel, capacitance of a parallel plate capacitor with and without dielectric medium between the plates, energy stored in a capacitor (no derivation, formulae only).	3-4
Current Electricity	Electric current, flow of electric charges in a metallic conductor, drift velocity, mobility and their relation with electric current; Ohm's law, V-I characteristics (linear and non-linear), electrical energy and power, electrical resistivity and conductivity, temperature dependence of resistance, Internal resistance of a cell, potential difference and emf of a cell, combination of cells in series and in parallel, Kirchhoff's rules, Wheatstone bridge.	4-5
Moving Charges and Magnetism	Concept of magnetic field, Oersted's experiment. Biot - Savart law and its application to current carrying circular loop. Ampere's law and its applications to infinitely long straight wire. Straight solenoid (only qualitative treatment), force on a moving charge in uniform magnetic and electric fields. Force on a current-carrying conductor in a uniform magnetic field, force between two parallel current-carrying conductors-definition of ampere, torque experienced by a current loop in uniform magnetic field; Current loop as a magnetic dipole and its magnetic dipole moment, moving coil galvanometer- its current sensitivity and conversion to ammeter and voltmeter.	5-6



$$E=mc^2$$



Magnetism and Matter	Bar magnet, bar magnet as an equivalent solenoid (qualitative treatment only), magnetic field intensity due to a magnetic dipole (bar magnet) along its axis and perpendicular to its axis (qualitative treatment only), torque on a magnetic dipole (bar magnet) in a uniform magnetic field (qualitative treatment only), magnetic field lines. Magnetic properties of materials- Para-, dia- and ferro - magnetic substances with examples, Magnetization of materials, effect of temperature on magnetic properties.	3-4
Electromagnetic Induction	Electromagnetic induction; Faraday's laws, induced EMF and current; Lenz's Law, Self and mutual induction.	4-5
Alternating Current	Alternating currents, peak and RMS value of alternating current/voltage; reactance and impedance; LCR series circuit (phasors only), resonance, power in AC circuits, power factor, wattless current. AC generator, Transformer.	3-4
Electromagnetic Waves	Basic idea of displacement current, Electromagnetic waves, their characteristics, their transverse nature (qualitative idea only). Electromagnetic spectrum (radio waves, microwaves, infrared, visible, ultraviolet, X-rays, gamma rays) including elementary facts about their uses.	4-5
Ray Optics and Optical Instruments	Ray Optics: Reflection of light, spherical mirrors, mirror formula, refraction of light, total internal reflection and optical fibers, refraction at spherical surfaces, lenses, thin lens formula, lens maker's formula, magnification, power of a lens, combination of thin lenses in contact, refraction of light through a prism. Optical instruments: Microscopes and astronomical telescopes (reflecting and refracting) and their magnifying powers.	4-5
Wave Optics	Wave optics: Wave front and Huygen's principle, reflection and refraction of plane wave at a plane surface using wave fronts. Proof of laws of reflection and refraction using Huygen's principle. Interference, Young's double slit experiment and expression for fringe width (No derivation final expression only), coherent sources and sustained interference of light, diffraction due to a single slit, width of central maxima (qualitative treatment only).	3-4

WHAT STUDENTS SAY

Y

★★★★★

- by Yuvaraj
attended BTech Tuition
posted on 04 Jul, 2018

"Vastly experienced, Elusive teaching, clears doubt on par to the student capacity, motivating person."

R

★★★★★

- by RAJAVIKNESH
attended Class 11 Tuition
posted on 04 Jul, 2018

"Excellent in teaching. Level of teaching is totally well and good. I recommend. Tutor is having good knowledge on teaching the subjects. Especially I get support whenever I needed."

R

★★★★★

- by Rajesh
attended Class 10 Tuition
posted on 04 Jul, 2018

"Way of explaining the concepts is very good. Theoretical as well as technically good."

G

★★★★★

- by GEETHA BIMALRAJ
attended Class 9 Tuition
posted on 05 Jul, 2018

"Excellent tutor. Very dedicated and thorough in teaching. Has been teaching for the last three years and have not had any issues. definitely recommended."

T

★★★★☆

- by Thamim Fathima Nisha.A
attended BTech Tuition
posted on 12 Jul, 2018

"Very good. He is more interactive with us. He teaches us more concepts clearly. He clears our doubts without any hesitation."

P

★★★★★

- by Pavi

attended **Class 12 Tuition**

posted on 24 Sep, 2019

"Best one for all subject well experience in all subjects daily tests and clearing doubts with an example soon. "

S

★★★★★

- by Saravanan

attended **Class 10 Tuition**

posted on 24 Sep, 2019

"Good mentor. Really helped in my exam preparation. Thank you sir for being my tuition teacher. "

B

★★★★★

- by Bharathi

attended **Class 10 Tuition**

posted on 24 Sep, 2019

"Rajavel sir is very kind and humble. He won't scold if done a mistake. We can easily understand when he teaches. He will teach us a line by line. He is the best teacher I have ever seen in my life. "

★★★★★

- by Sathidevi S Raj

attended **Class 10 Tuition**

posted on 25 Sep, 2019

"Very polite and humble. Makes the student understand the concepts in easiest and spends quality time with student. Student is very comfortable. "



thank
you

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To book a demo, simply visit our website and click the option "Schedule Demo class" and fill out the form. Our team will get in touch with you to schedule a convenient time for the demo.

"We motivate the students to build skills and develop confidence as they pursue educational success."