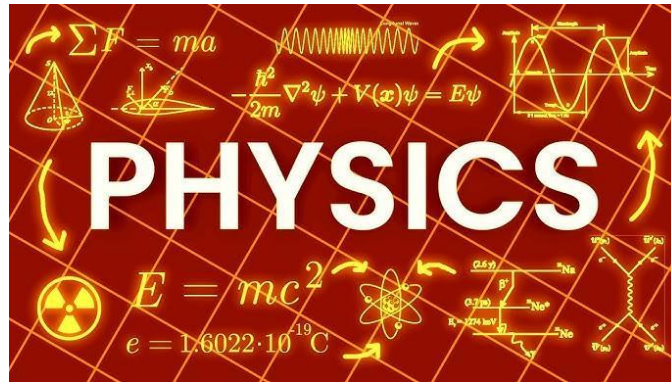




What is Physics?

Physics the study of the structure and function of the universe. From motion and forces, to electricity and magnetism, to heat and light – physics explains it all!

Why Take Physics?

If you:

- ...want to know more about the universe and how things really work.
- ...want to pursue a career in engineering, chemistry, physics, medicine, or computer science.
- ...want a fun science class that shows you how math is used and explains how the world works.

Did You Know?

- A major portion of the medical school entrance exam (MCAT) is physics-based?
- Physics is the most useful class for would-be engineering students? (*Your entire career is based on it!*)
- Many advanced math topics were developed so that physicists could do their work.
- Physicists work in many fields including materials science, food science, engineering, medicine, video games and more?

What Classes Does Borah Offer?

- **Regular/" Conceptual" Physics:** This class is for those that just want to try out the basics. The math is minimal and covers motion, forces, energy, momentum, electricity, magnetism, and waves.
(*Must have a C or better in Integrated 1 and be taking Integrated 2 or higher.*)
- **AP Physics 1:** This is the first AP Physics class for students who are ready to engage in a higher-level, faster-paced physics class. This class covers motion, forces, energy, momentum, rotation, oscillations, and fluid mechanics at the college level. (*Must be taking Integrated III or higher.*)
- **AP Physics 2:** This class continues the work of AP Physics 1 and covers electricity, magnetism, light and optics, thermodynamics, and modern physics topics including quantum mechanics and nuclear physics. (*Must have taken AP Physics 1 and be in Pre-Calculus or higher.*)
- **AP Physics C:** This is college physics with calculus and is the highest-level physics course offered in the district. It covers mechanics and electricity and magnetism, and great for would-be engineers, physicists, and mathematicians. (*Must be in AP Calculus AB or have completed it.*)

As an Incoming Sophomore, What Might My Physics Journey Look Like?

If you are going to take Integrated Math 2 as a Sophomore:

- Sophomore Year – Regular Physics
- Junior Year – AP Physics 1
- Senior Year – AP Physics 2

If you are going to take Integrated Math 3 as a Sophomore:

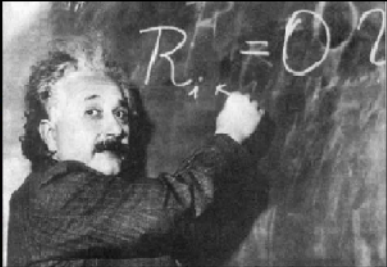
- Sophomore Year – AP Physics 1
- Junior Year – AP Physics 2
- Senior Year – AP Physics C

If you are going to take Pre-Calculus or higher as a Sophomore:

- Sophomore Year – AP Physics 1
- Junior Year – AP Physics 2 OR AP Physics C
- Senior Year – AP Physics C (*If not completed already!*)

More Questions? Contact Mr. Jordan at taylor.jordan@boiseschools.org.

PHYSICIST



What my friends think I do



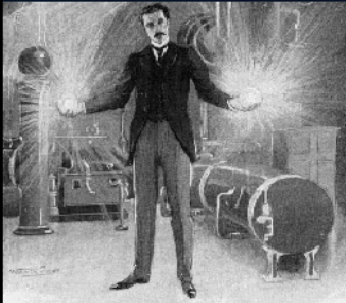
What my mother thinks I do



What society thinks I do



What mathematicians think I do



What I think I do

$$\begin{aligned}\hat{H}|P, Q\rangle &= \epsilon|P, Q\rangle \\ \mathbf{1} &= \int d\rho |\rho\rangle \langle \rho| \\ \langle \rho|\rho'\rangle &= \delta(\rho - \rho') \\ \int \langle \rho|\hat{H}|\rho'\rangle \langle \rho'|P, Q\rangle d\rho' &= \epsilon \langle \rho|P, Q\rangle \\ \langle \rho|P, Q\rangle &= \begin{pmatrix} P(\rho) \\ Q(\rho) \end{pmatrix}\end{aligned}$$

What I really do