**THE BRANCHES OF PHYSICS**

Physics is the study of matter and energy and the interaction of the two through forces and motion

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| Branch | Examples |
| Mechanics and motion | Interaction between objects, falling objects, friction and weight |
| Thermodynamics | Melting and freezing, engines, refrigerators |
| Vibrations and waves | Springs, sound, pendulums |
| Optics | Light, mirrors, lenses, color, astronomy |
| Electromagnetism | Electrical charges, circuitry, magnets, electricity |
| Relativity | Particle collisions and accelerators, nuclear energy |
| Quantum mechanics | The atom and its parts, the behavior of submicroscopic particles |