
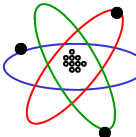
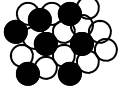
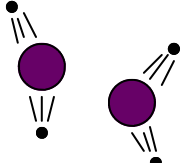


Figure 3.1: **FUNDAMENTAL FORCES OF NATURE**

FUNDAMENTAL FORCE	FORCE CARRIERS	PARTICLE INTERACTIONS	STRENGTH	SCOPE/RANGE	ROLE
GRAVITY 	Gravitons	Any particle with mass, or all everyday particles.	Weakest	Very Long (possibly throughout multiple dimensions.)	Holds large structures like stars and galaxies together. Black holes.
ELECTROMAGNETISM 	Photons	Electrically charged particles, or all particles with an electric charge.	Strong	Long	Binds atoms. Chemistry, biology, light, electronics.
STRONG FORCE 	Gluons	Mesons, baryons, gluons, and quarks.	Strongest	Short	Binds atomic nuclei together.
WEAK FORCE 	W & Z Bosons	Quarks and leptons. (All particles except photons.)	Weak	Very Short	Radioactive decay. Burning of the Sun and nuclear reactions.

*Also refer to Figure 1.5