8th Grade Curriculum Pacing Guide

Topic/Unit	Duration	Subtopics	Notes + Activities
1. Introduction to Class	2-3 class periods (1.5 weeks)	• Syllabus • Letter home • Social Contract in CPR and in class • Talk about TAB out and TAB in • Modeling procedures for room + a lab • Safety	All this stuff is done throughout year
2. Basics – Nature of Science	7 class periods (3 weeks)	• Scientific Method (all steps) • Prefixes and Suffixes • Independent and Dependent Variables • Graphing • Lab Safety + modeling for a lab • Prefexies and suffixes • Measurements and conversions • Equipment • Unites V, D, L, M, time	This is all general science and done throughout year Check out chem fundy for a lot of this

3. Matter	10 class periods (4 weeks)	• Elements, compounds, mixtures, solutions, suspensions, colloids • Solid, liquid, gas, kinetic theory, chemical and physical changes	CHEMISTRY
4. Atomic Structure and Periodic Table	10 class periods (4 weeks)	• History • Elements and Symbols • Parts of the atom • Atomic #, mass # • Trends • pT, m/nm classification with labs	CHEMISTRY
5. Bonding and Reactions	10 class periods (4 weeks)	• ionic, covalent (no naming, just how to do it) • endothermic and exothermic reactions • types of reactions (single, double, etc etc)	CHEMISTRY
6. Acids, Bases, and Solutions	5 class periods (2 weeks)	• Solutions, acids, bases, salts, and mixtures	CHEMISTRY
7. Motion and Work	7 class periods (3 weeks)	• Speed, velocity, acceleration • Graphing motion and calculating	PHYSICS

8. Newton's Laws	7 class periods (3 weeks)	• All the laws with labs • Gravity • Friction • How to draw all the net forces on something	PHYSICS
9. Work and Power	5 class periods (2 weeks)	• Work, force, power, simple machines • Pulleys and stuff	PHYSICS
10. Energy	10 class periods (4 weeks)	• Kinetic and Potential • Energy types • Transformations • Thermal energy • Three types of heat transfer	PHYSICS
11. Electricity and Magnetism	7 class periods (3 weeks)	• Electricity • Circuits • Magnets • Electromagnets	PHYSICS
12. Waves	5 class periods (2 weeks)	• Sound waves • Light waves • E mag waves • Longitudinal and transverse	PHYSICS