# **AP CHEMISTRY**



What will we teach your child?

# Parinama Academy

### **AP CHEMISTRY**

### PARINAMA ACADEMY BELT PROGRESSION

LEVEL 1	LEVEL 2
White Belt 1   4 Weeks White Belt 2   4 Weeks	Yellow Belt 1   4 Weeks Yellow Belt 2   4 Weeks
Program Completion Time: 8 Months	
LEVEL 3	LEVEL 4
Green Belt 1   4 Weeks Green Belt 2   4 Weeks	Blue Belt 1   4 Weeks Blue Belt 2   4 Weeks

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## WHITE BELT 1 (4 WEEKS)



WHITE BELT 2 (4 WEEKS)

- 1. Atomic Structure & Properties
- 2. Spectroscopy & Periodic trends
- 3. Elemental Composition of Substances & Mixtures
- 4. Review/Assessment

- 1. Chemical bonds, Intramolecular force & energy
- 2. Structure of metals & alloys
- 3. Resonance & formal charge
- 4. Review/Assessment

### YELLOW BELT 1 (4 WEEKS)



- 1. Intermolecular force, properties of solids, liquids & gasses
- 2. Gas law & kinetic molecular theory
- 3. Solutions & Mixtures, electromagnetic spectrum.
- 4. Review/Assessment

### YELLOW BELT 2 (4 WEEKS)

- 1. Reactions & net ionic equations
- 2. Physical & Chemical Reactions
- 3. Titration & Redox reactions
- 4. Review/Assessment

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## **GREEN BELT 1 (5 WEEKS)**



**GREEN BELT 2 (5 WEEKS)** 

- 1. Reaction rates, Rate law & elementary reactions
- 2. Collision model, reaction energy profile
- 3. Reaction mechanisms & catalysis
- 4. Review/Assessment

- 1. Endothermic & Exothermic process
- 2. Thermal equilibrium & Calorimetry
- 3. Enthalpy of reaction & Hess's law
- 4. Review/Assessment

### **BLUE BELT 1 (5 WEEKS)**



- 1. Equilibrium Constant & Concentrations
- 2. Introduction to Le Chatelier's Principle
- 3. Common-ion effect, pH & solubility
- 4. Review/Assessment

### **BLUE BELT 2 (5 WEEKS)**

- 1. Acids & Basis, Strong- Weak acids
- 2. Acid-Base Titrations & Molecular structure of acids- bases
- 3. Properties of buffers, buffer capacity & Henderson-Hasselbalch equation
- 4. Review/Assessment