Danville Area School District
Course Overview and Scope and Sequence

Course Title: Chemistry
Content Area: Science
Grade Level: 10th and/or 11th
Date Developed: June 2023

COURSE OVERVIEW: This course is intended for students pursuing a non-science major at the post-secondary level. Chemistry covers the same topics and concepts as Honors Chemistry with more emphasis placed on hands-on concepts and everyday applications of scientific principles. This course may be taken concurrently with Physics.
ANCHOR STANDARDS: 1. Structure and Properties of Matter 2. Chemical Reactions 3. Nuclear Processors 4. Forces and Motion 5. Types of Interactions
KEY COURSE TEXT AND MATERIALS: Pearson Chemistry Foundation Edition 2012
KEY ASSESSMENTS: Diagnostic: None Formative: POGIL, gizmo, labs, quizlet, classroom discussions, forms for bell ringer/exit ticket Summative: Quizzes and tests; Lab Final and Written Final

SCOPE AND SEQUENCE

Unit	PRIORITY STANDARDS	SUPPORTING STANDARDS	ASSESSMENT	MATERIALS	TIMEFRAME
1. The Science of Chemistry	3.2.9-12.G	3.2.6-8.C 3.2.6-8.D 3.2.6-8.E 3.2.6-8.F 3.2.9-12.A 3.2.9-12.G	FLINN measurements, discovering density, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom. FLINN scientific	15
2. Matter and Change	3.2.9-12.A	3.2.6-8.A 3.2.6-8.B 3.2.9-12.A 3.2.9-12.G	POGIL, FLINN scientific labs, Quizlet, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	15
3. Atomic Structure	3.2.9-12.A	3.2.6-8.A 3.2.9-12.A	Quizlet, POGIL isotopes, FLINN lab, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	16
4. Electrons and the Periodic Table	3.2.9-12.A 3.2.9-12.V	3.2.6-8.A 3.2.6-8.I 3.2.6-8.Q 3.2.9-12.A	Quizlet, Bohr models of atoms, Flame test labs, Card game, Test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	16
5. Chemical Bonding	3.2.9-12.A 3.2.9-12.B 3.2.9-12.N	3.2.6-8.E 3.2.9-12.A 3.2.9-12.G	Quizlet, Flinn ChemTopics Labs: Properties of Solids, Model Kits,	Content is teacher created. In addition to lab/project supplies, materials	15

			POGILs, test	are posted in Google Classroom.	
6. Describing Chemical Reactions	3.2.9-12.C 3.2.9-12.G	3.2.6-8.D 3.2.6-8.E 3.2.6-8.F 3.2.9-12.A 3.2.9-12.G	Quizlet, Demos, Pogils, FLINN labs, modeling percent composition through chewing gum, analyzing solubility rules, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	18
7. Stoichiometry and Reaction Kinetics	3.2.9-12.D 3.2.9-12.E 3.2.9-12.G	3.2.9-12.A 3.2.9-12.G	POGILS, quizlets, S'mores lab, Stoichiometry challenge, construction of rockets, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	15
8. KMT and Gas Laws	3.2.9-12.B 3.2.9-12.N	3.2.6-8.B 3.2.6-8.K 3.2.6-8.N 3.2.6-8.O 3.2.9-12.A	Gizmos, modeling gas law stations, PhET simulations, test	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	15
9. Solutions	3.2.9-12.E	3.2.9-12.A	Gizmos, modeling, Kool-Aid lab	Content is teacher created. In addition to lab/project supplies, materials are posted in Google Classroom.	15
10. Acid-Base Chemistry	3.2.9-12.E	3.2.9-12.A 3.2.9-12.G	Gizmos, modeling, Properties of Acids and Bases lab, Titration lab	Content is teacher created. In addition to lab/project supplies, materials	15

				are posted in Google Classroom.	