

School District of Loyal
Chemistry
Grade: 10/11
Student Learning Targets



Class: Chemistry

Students who demonstrate understanding can:

WI State Standards	Standard:	Student Learning Targets:
SCI.PS4	Students use science and engineering practices, crosscutting concepts, and an understanding of waves and their applications in technologies for information transfer to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Identify common examples of uses for different parts of the EM spectrum ● Solve problems involving wavelength, frequency and energy ● Explain EM phenomena using wave or particle models as needed ● Explain how light is used to identify matter
SCI.PS2	Students use science and engineering practices, crosscutting concepts, and an understanding of forces, interactions, motion and stability to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Explain how electrostatic force drives atomic behavior ● Explain how electrostatic force drives molecular behavior ● Use Coulomb's Law to predict and explain periodic trends
SCI.PS3	Students use science and engineering practices, crosscutting concepts, and an understanding of energy to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Explain Ideal Gas behavior using Kinetic molecular theory ● Explain calorimetry experiments using Law of Conservation of Energy
SCI.PS1	Students use science and engineering practices, crosscutting concepts, and an understanding of matter and its interactions to make sense of phenomena and solve problems.	<p>Students will be able to:</p> <ul style="list-style-type: none"> ● Identify and name covalent and ionic compounds ● Use mathematical models of reactions to calculate yields ● Identify and predict products for common types of reactions

		<ul style="list-style-type: none">● Design experiments to make chemical measurements● Identify sources of error
SCI.ESS3	Students use science and engineering practices, crosscutting concepts, and an understanding of the Earth and human activity to make sense of phenomena and solve problems	Students will be able to: <ul style="list-style-type: none">● Discuss the roles of research and regulation in managing the impacts of human activity● Identify examples of chemistry related environmental issues