

Name
TA

Science 10
2022-2023



Learning Guide # 2: Atoms and Compounds

BIG IDEA: Naming Ionic Compounds, Periodic Table, Molecular Compounds

Fundamental Knowledge (I know)

- Protons, Neutrons, and Electrons
- Diagnostic Tests
- Naming Ionic Compounds AND Molecular Compounds

Curricular Competencies (I can)

	Proficiency Scale Teacher and Student self assessment (Circle one)	Evidence (How do you know?)
I can: Evaluate their methods and experimental conditions, including identifying sources of error or uncertainty, confounding variables, and possible alternative explanations and conclusions.	Emerging (EMG) Initial Understanding Developing (DEV) Partial/Near Complete Understanding Proficient (PRF) Complete Understanding Extending (EXT) Sophisticated Understanding	
Communicate scientific ideas and information, and perhaps a suggested course of action, for specific purpose and audience, constructing evidence-based arguments and using appropriate scientific language, conventions, and representations.	Emerging (EMG) Initial Understanding Developing (DEV) Partial/Near Complete Understanding Proficient (PRF) Complete Understanding Extending (EXT) Sophisticated Understanding	

Student Signature:

Teacher Signature:

Date:

Instructions To help guide your learning, make your way through the activities in Option 1, Option 2, or Option 3. You may “mix and match” between the different Option columns.

TOPIC	OPTION 1	OPTION 2	OPTION 3
Naming Ionic Compounds	Using appropriate online resources, make notes on Naming and Writing Chemical Formulas for: ionic bonding (including multivalent metals, polyatomic bonding) and covalent bonding.	Read BC Science 10 pgs. 184-197 to learn about Naming and Writing Chemical Formulas and complete questions on p. 201 for practice.	Choose your own adventure! Pick up a planning sheet from the Science Kiosk. Create a plan! Make sure you read through the first page of this LG, as you will need to design ways to learn/practice and show your understanding of the topic(s) and skill(s) (competencies.) You will need to have a teacher approve your plan before beginning the LG.
Protons, Neutrons, and Electrons AND Lewis Dot Diagrams	Read Chapter 4 and 5 in the “BC Science 10” textbook AND complete the “Chapter 4 and 5 BLM Worksheets”.	Read pgs. 220-229 on Acids and Bases and complete questions on p. 233.	
Organic Chemistry	What is organic chemistry? What are the different classes of organic molecules? Answer these questions by: making notes, create a table, make a video, or by building a model.	Read pgs. 244-248 to learn about Organic Chemistry, then complete questions on p. 251.	
Ionic and Covalent Compounds	How are naming and writing formulas different for ionic and covalent compounds? Find a way to compare and contrast the 2 (i.e. create a brochure or a reference guide).	How are naming and writing formulas different for ionic and covalent compounds? Find a way to compare and contrast the 2 (i.e. create a brochure or a reference guide).	
Why is This Important	Why is it important to understand the difference between different chemical compounds? Give examples to support your answer.	Why is it important to understand the difference between different chemical compounds? Give examples to support your answer.	
Lab	Use BC Science 10 to complete Lab 5-1B p. 230 – 231 using the guided worksheet.		
Self Assessment	Reflect on the Fundamental Knowledge and Curricular Competencies. Use the rubric and make goals to improve for your next learning guide.		
Interview or Quiz	See you teacher for an interview or to have a quiz slip signed for the test center. Bring your work and staple it to your quiz when complete.		

Resources can be found at www.THSSscience.com or the Science Kiosk

User: **THSS**

Password: **science**