Lesson Plan Template

Grade: 6

Subject: Physical Science

Materials: PowerPoint,

Technology Needed: Projector and Computer

Instructional Strategies:

- ☐ Direct instruction
- ☐ Guided practice
- ☐ Socratic Seminar
- ☐ Learning Centers
- ☐ Lecture
- ☐ Technology integration
- ☐ Other (list)
- ☐ Peer teaching/collaboration/ cooperative learning
- ☐ Visuals/Graphic organizers
- ☐ PBL
- ☐ Discussion/Debate
- ☐ Modeling

Guided Practices and Concrete Application:

- ☐ Large group activity
- ☐ Independent activity
- ☐ Pairing/collaboration
- ☐ Simulations/Scenarios
- ☐ Other (list)
- ☐ Hands-on
- ☐ Technology integration
- ☐ Imitation/Repeat/Mimic

Explain:

Students will participate in a short class activity part way through note taking. Then, there will be a molecules practice worksheet for each student to work on individually.

Standard(s)-

MS-PS1-1	Develop models to describe the atomic composition of simple molecules and extended structures.

Objective(s)

By the end of the lesson, students will be able to explain the difference between a molecule, compound and element. By the formative assessment next week students will also demonstrate that they know how to read a basic chemical formula using subscripts and coefficients.

Bloom's Taxonomy Cognitive Level:

Dependent on level of scaffolding
Below: Remember
Approaching: Understand/Apply
Above: Analyze/Evaluate

Differentiation

Below Proficiency:

By the end of the lesson students will be able to identify the differences between molecules, compounds, and elements additionally they will be able to identify subscripts and coefficients in a chemical formula using their guided notes.

Above Proficiency:

By the end of the lesson students will be able to explain and model the differences between molecules, compounds, and elements and demonstrate their knowledge of subscripts and coefficients in a chemical formula with the assigned practice sheet.

Approaching/Emerging Proficiency:

By the end of the lesson students will be able to explain the difference between a molecule, compound, and element using their guided notes as reference. Additionally they will be able to demonstrate the significance of subscripts and coefficients in a chemical formula with reference to their notes.

Classroom Management- (grouping(s), movement/transitions, etc.)

Students will be seated in pairs according to their previously assigned seating chart.

Behavior Expectations- (systems, strategies, procedures specific to the lesson, rules and expectations, etc.)

Students will follow the previously set expectations by their regular teacher. This means that they stay in their seats during class, use the note taking materials they have, and use the bell that I will ring as a transition cue.

Minutes	Procedures
	Set-up/Prep:
5	**Engage: (opening activity/ anticipatory Set – access prior learning / stimulate interest /generate questions, etc.)**

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	Review: What is an atom? What is an element? I will connect these old concepts of atoms and elements with the new concepts of molecules and compounds by using the analogy of baking. The atoms and elements are like the ingredients, the chemical formula is like the recipe, and the molecules and compounds are like the cake (or whatever food you are trying to make). Essential question:
20	**Explain: (concepts, procedures, vocabulary, etc.)** Molecules! (See Molecules Notes) Students will use their note taking paper to take notes throughout the lecture. They only need to write down what has been highlighted in yellow on the slides. This will take up most of the lesson because they need to know some basic information on molecules before they do a discovery lab the next day.
10	**Explore: (independent, concreate practice/application with relevant learning task -connections from content to real-life experiences, reflective questions- probing or clarifying questions)** Students will participate in short class activity (see Slide 8 in Molecule Notes). At the end of the lesson, students will have about ten minutes to independently demonstrate what they learned with a worksheet. (Molecules Practice). There will be additional work time throughout the week as well.
2	**Review (wrap up and transition to next activity):** Students will get a two-minute warning to start packing up and putting away their materials to get ready for their next class.

Formative Assessment: (linked to objectives) **Progress monitoring throughout lesson- clarifying questions, check- in strategies, etc.** Students will complete the work sheet to demonstrate that they understand what molecules are and how to read the subscripts and coefficients.	**Summative Assessment (linked back to objectives)** Next week, the main teacher will give the students a short quiz (similar to the worksheet) for students to demonstrate their knowledge on this topic. **If applicable- overall unit, chapter, concept, etc.:**

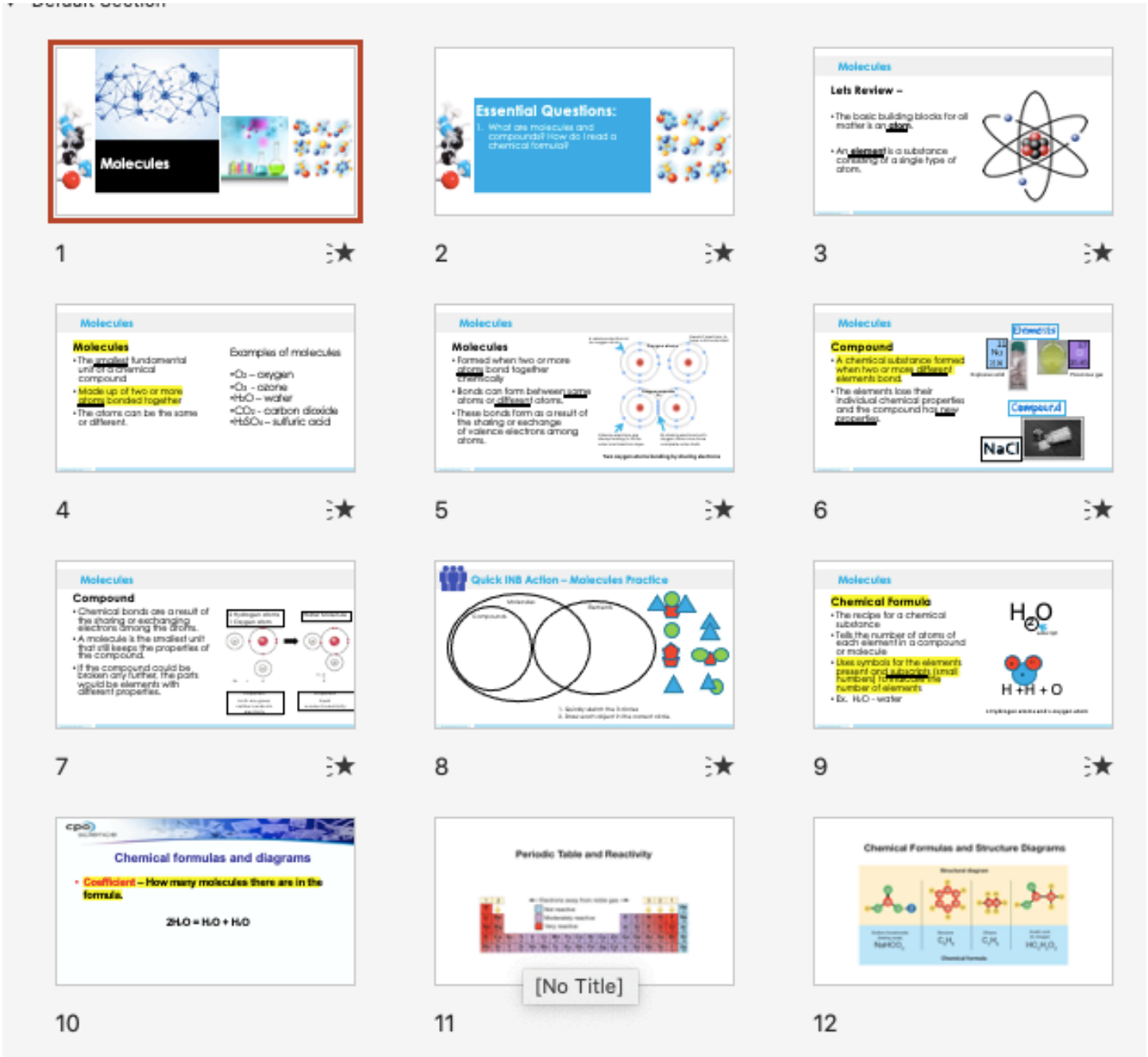
Reflection (What went well? What did the students learn? How do you know? What changes would you make?):

Overall, this lesson went well. The students were very engaged in the whole lesson, I used a lot of questioning during the notes time to keep student connecting concepts they had learned previously with the new content. Most students were eager to answer the questions I posed. I wish I had been clearer when I was explaining the number of times that each element could bond because it will be necessary for tomorrow's lesson. Thankfully there is a diagram in the PowerPoint Slides that I can go over again before they work on their labs.

Although I was not very thrilled to have a lesson that was mostly direct instruction, I know that it was important because there was a lot of new material to learn. In addition, the 6th graders are still learning how to take good notes, so this was good practice for that as well.

Lesson Plan Template

Molecule Notes:



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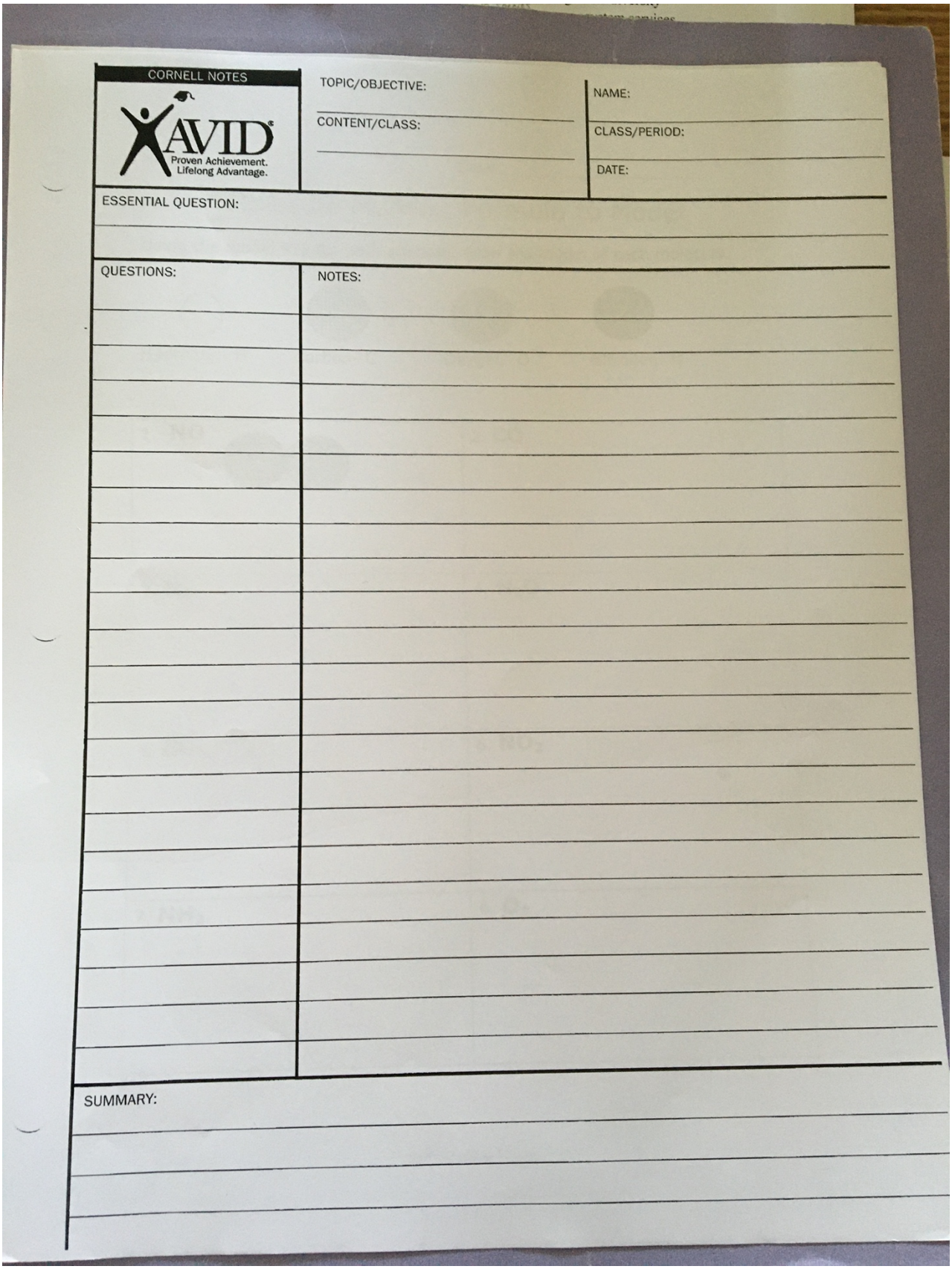
Student Note Sheet:



CORNELL NOTES

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TOPIC/OBJECTIVE:

CONTENT/CLASS:

NAME:

CLASS/PERIOD:

DATE:

ESSENTIAL QUESTION:

QUESTIONS:

NOTES:

SUMMARY:

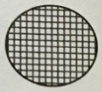
Molecules Practice:

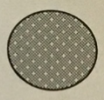
Name _____ Date _____

Molecule Models: Formula to Model

Using the model key for each element, draw the model of each molecule.


Hydrogen- H


Carbon- C


Oxygen- O

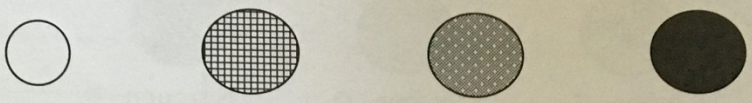

Nitrogen- N

1. **NO** 	2. **CO**
3. **N_2**	4. **H_2O**
5. **CO_2**	6. **NO_2**
7. **NH_3**	8. **O_2**

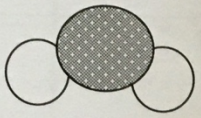
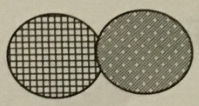
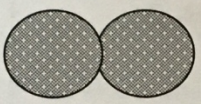
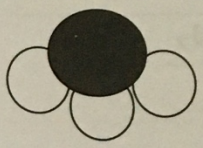
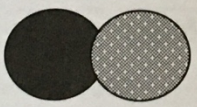
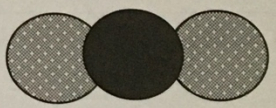
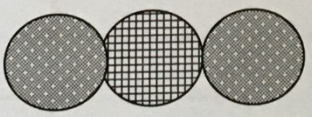
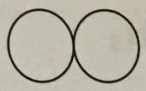
Name _____ Date _____

Molecule Models: Model to Formula

Using the model key for each element, write the chemical formula for each molecule.



Hydrogen- H Carbon- C Oxygen- O Nitrogen- N

1.  H_2O	2.  _____
3.  _____	4.  _____
5.  _____	6.  _____
7.  _____	8.  _____