

Differentiating for Learning in STEM Teaching

Using pyramids of learning in the classroom

1

•Identify- Draw an atom and compare the mass and charge of the sub-particles.

2

•Identify- Match the type of bonding with their definitions and properties.

3

•Describe-Draw the electronic configuration for lithium, potassium and carbon.

4

•Explain how the the structure of an atom links to the periodic table. To help you do this, draw the structure of lithium, sodium and potassium and see if you can spot a pattern.

5

•Analyse-Sort the cards to form the formula of the following ionic compounds:
•Magnesium oxide, lithium chloride, sodium oxide, water, aluminium chloride and calcium fluoride.

6

•Synthesise-Draw the following bonds:
•Sodium fluoride, hydrogen flouride, chlorine and sodium oxide.

7

•Apply your knowledge to complete the exam questions on bonding

8

•Link-You have the electronic structure of water. What would carbon dioxide look like? Draw this in your book.

9

•Synthesise-Use the cards to make the formula of the compounds on the sheet. Use this to write the balanced symbol equations for the neutralisation reactions listed.

10

•Link and Synthesise- Silicon dioixde is a giant covalent structure. Use your knowledge of covalent bonding to explain it's properties and why it has these properties.