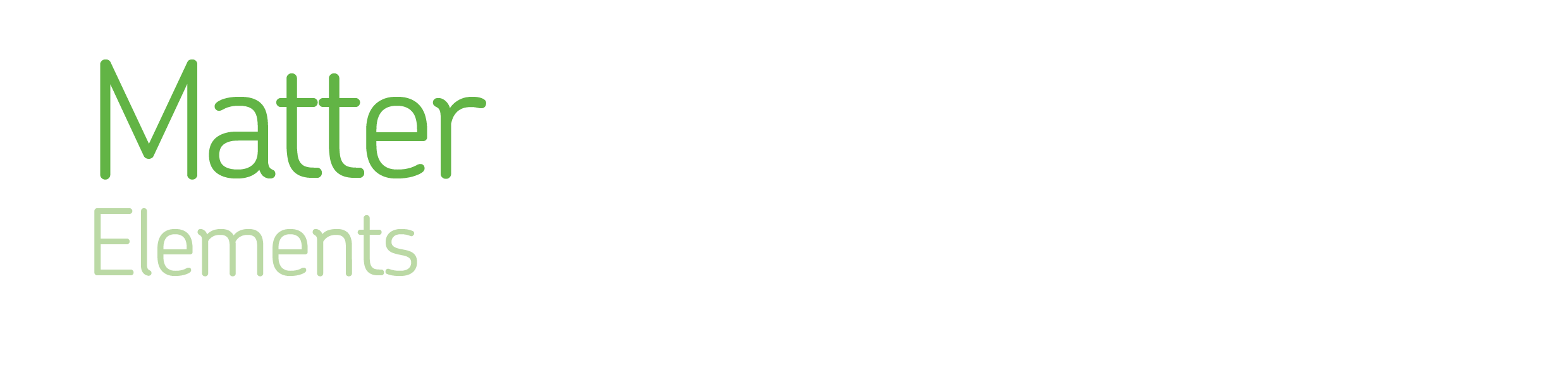
 Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_



Compare the properties of elements with the properties of a compound formed from them.



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| --- | --- | --- | --- | --- |
| Know | |  | Apply  2  1 | |
| Ideas | |  |  |  |
| K1 | Most substances are not pure elements, but compounds or mixtures containing atoms of different elements. They have different properties to the elements they contain. |  | A1 | Name compounds using their chemical formulae. |
| A2 | Given chemical formulae, name the elements present and their relative proportions. |
|  | |  | A3 | Represent atoms, molecules and elements, mixtures and compounds using particle diagrams. |
| Skills | |
| K2 | Use particle diagrams to classify a substance as an element, mixture or compound, and as molecules or atoms. |  | A4 | Use observations from chemical reactions to decide if an unknown substance is an element or a compound. |
| K3 | Name simple compounds using rules: change non-metal to –ide; mono, di, tri prefixes; and symbols of hydroxide, nitrate, sulfate and carbonate. |  |  |  |
|  | |  | A5 |  |
| Facts | |
| K4 | The symbols of hydrogen, oxygen, nitrogen, carbon, iron, zinc, copper, sulfur, aluminium, iodine, bromine, chlorine, sodium, potassium, magnesium. |  |  |  |
|  |
|  | |  | A6 |  |
| Key words | |
| K5 | **Elements:** what all substances are made up of, and which contain only one type of atom. |  |  |  |
| K6 | **Atom:** The smallest particle of an element that can exist. |  |  |  |
| K7 | **Molecules:** Two to thousands of atoms joined together. Most non-metals exist either as small or giant molecules. |  |  |  |
| K8 | **Compound:** Pure substances made up of two or more elements strongly joined together. |  |  |  |
| K9 | **Chemical formula:** Shows the elements present in a compound and their relative proportions. |  |  |  |
| K10 | **Polymer:** A molecule made of thousands of smaller molecules in a repeating pattern. Plastics are man-made polymers, starch is a natural polymer. |  |  |  |
| 3 | Extend |  |  |  |
| E1 | Use particle diagrams to predict physical properties of elements and compounds. |  |  |  |
| E2 | Deduce a pattern in the formula of similar compounds and use it to suggest formulae for unfamiliar ones. |  |  |  |
| E3 | Compare and contrast the properties of elements and compounds and give a reason for differences. |  |  |  |
| E4 |  |  |  |  |
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| E5 |  |  |  |  |
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