ATOMS, ELEMENTS & COMPOUNDS

1. Do you know the difference between atoms, molecules, elements, compounds & mixtures?

Give as much detail as to the nature and identity of the following substances by completing the table below.



|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Atom or molecule? | Element, compound or mixture | Physical state | Possible identity of substances present. |
| A |  |  |  |  |
| B |  |  |  |  |
| C |  |  |  |  |
| D |  |  |  |  |
| E |  |  |  |  |
| F |  |  |  |  |
| G |  |  |  |  |
| H |  |  |  |  |

1. The diagram shows five particles of elements and compounds. Each circle represents an atom of an element. Match the pictures A to E to the following questions.



(a) Which particle picture represents a mixture of two compounds? \_\_\_\_
(b) Which particle picture represents a pure compound? \_\_\_\_
(c) Which particle picture represents a mixture of an element and a compound? \_\_\_\_
(d) Which particle picture represents a pure element? \_\_\_\_
(e) Which particle picture represents a mixture of two elements? \_\_\_\_
(f) Which particle picture could represent pure water? \_\_\_\_
(g) Which particle picture could represent something dissolved in water? \_\_\_\_

1. The diagram below shows a sample of air. Identify the gases present and justify your choices.

