

Definitions in chemistry

Definitions tell us what words mean. Good definitions can be very useful, but sometimes definitions can be wrong, or just confusing. To be helpful a definition needs to be correct, and to make sense.

Below are some definitions of important words in science. Some of the definitions below come from books, and some have been provided by young people studying science. Read each definition carefully and decide (a) if you think it is correct, and (b) whether it is a definition that would help someone learning about science. Try to explain your reasons, if you can.

1. Element: the following definitions have been given to the word 'element'

a) **Element: A substance that is made of only one kind of atom.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

b) **Element: A substance which cannot be split up into simpler substances.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

2. Compound: the following definitions have all been given to the word 'compound'

a) **Compound: Is made of two elements mixed together.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

b) **Compound: A substance consisting of atoms of different elements joined together.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

c) **Compound: A chemical substance made up of two or more elements bonded together, so that they cannot be separated by physical means.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

d) **Compound: A product which has properties different from those of either of the component substances and which is formed with an accompanying energy change is called a compound.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

3. Atom: the following definitions have been given to the word 'atom'

a) **Atom: The simplest structure in chemistry. It contains a nucleus with protons and neutrons, and electrons moving around in shells.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

b) **Atom: The smallest part of an element which can exist as a stable entity.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:



c) **Atom: The building blocks of life, the Lego® of nature.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

d) **Atom: The smallest particle of an element that still shows the chemical properties of the element.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
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| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

e) **Atom: The smallest particle of an element that can take part in a chemical reaction.**

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

f) **Atom: Smallest particle that can be found. It is made up of protons, neutrons and electrons.**

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| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

g) **Atom: The smallest particles that can be obtained by chemical means.**

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| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

4. Molecule: the following definitions have been given to the word 'molecule'

a) **Molecule: The smallest particle of matter which can exist in a free state.**

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| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

b) Molecule: Something that is formed by two atoms bonding together.

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

c) Molecule: The smallest portion of a substance capable of existing independently and retaining the properties of the original substance.

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| <input checked="" type="checkbox"/> Is the definition correct? | <input checked="" type="checkbox"/> Would the definition help someone to learn? |
| <input type="checkbox"/> Yes, it is correct | <input type="checkbox"/> Yes, it is helpful |
| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
| <input type="checkbox"/> I am not sure | <input type="checkbox"/> I am not sure |

I think this because:

d) Molecule: Group of two or more atoms bonded together. A molecule of an element consists of one or more like atoms; a molecule of a compound consists of two or more different atoms bonded together.

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| <input type="checkbox"/> No, it is wrong | <input type="checkbox"/> No, it is not helpful |
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I think this because:

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