

# ATOMIC THEORY WORKSHEET

1. Circle the correct options with regards to Dalton's Atomic Theory. (There may be more than one).
  - (a) Everything is composed of extremely small, indivisible particles called atoms.
  - (b) Atoms of different elements can chemically interact to form compounds.
  - (c) A single element is made up of several different type of atoms.
  - (d) Chemical reactions take place when atoms separate, combine, or rearrange.
  
2. Circle the correct options with regards to Rutherford's Atomic Model. (There may be more than one).
  - (a) An atom mostly consists of empty space.
  - (b) Almost of all of the mass of the atom is present in its nucleus.
  - (c) The nucleus is large compared to the rest of the atom.
  - (d) A nucleus is made up of only positively charged particles called protons.
  
3. Greek philosopher Democritus was the first one to suggest that matter was made up of tiny particles called atoms all the way back in 4th century B.C. But his ideas were rejected at the time even though he was proven to be true later. Why were his thoughts not widely accepted at the time?

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## Answers

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The problem with Democritus' ideas is that they were just that - ideas with no scientific basis. Not only did the philosopher's ideas lack any experimental evidence to back them up, there was also no explanation provided for chemical behavior.