

Atomic Particle Basics

Name - KEY

1.) For each of the following descriptions, which particle fits best?

a.) has a positive charge. proton

b.) is the most massive. neutron

c.) has a negative charge. electron

d.) gives the nucleus its electric charge. proton

e.) is in the region surrounding the nucleus. electron

f.) has no electric charge. neutron

g.) has the least amount of mass. electron

h.) is in the nucleus along with protons. proton

2.) Neutral atoms have no overall electric charge even though protons and electrons have an electric charge. Explain.

Neutral atoms have no charge as the positive charges of the protons are in the same amount as the negative charges of the electrons. These equal amounts of opposite charges cancel each other out and result in a net charge of zero.

3.) Imagine that the nucleus of an atom is the size of a hardball. If the hardball was placed on a pitchers mound how large would the whole atom be?

The atom would equal the size of the entire stadium to match the space the electrons take up.