

**Held together
by different bonds**

**Covalent bond
atoms share
electrons**

**Ionic bond
One atom takes
an electron
from another**

**Can only be separated
with added energy**

**Mixtures may
look like compounds
can be
physically separated**

**Solutions are
mixtures where
one component
is dissolved in
another**

**Separated by
boiling
other methods**

**Energy is ability
to move
to change matter
Two main types
Kinetic Energy
energy of motion**

**Potential energy
stored energy
rock on a cliff**

**easily switch
back and forth**

**Heat an example
Kinetic energy
Thermal energy**

**Food an example
Potential energy
Chemical energy**

**Nuclear energy
loss of particle
reduces mass
kinetic energy
released**

**Man's progress
measured by
manipulation**

of elements

**First were
stones on stones
to change shape
"Stone Age"**

**low temperature metals
combined and shaped
"Bronze Age"**

**High temperature metals
much stronger
combined and shaped
"Iron Age"**

**Today we can
manipulate atoms
"Atomic Age"**