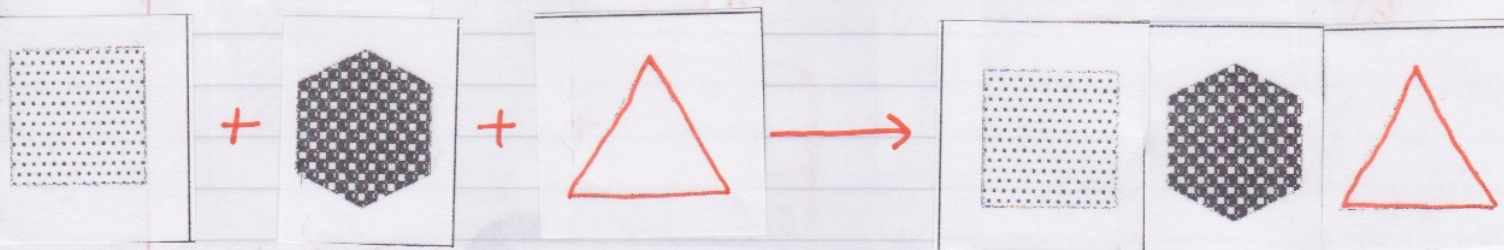


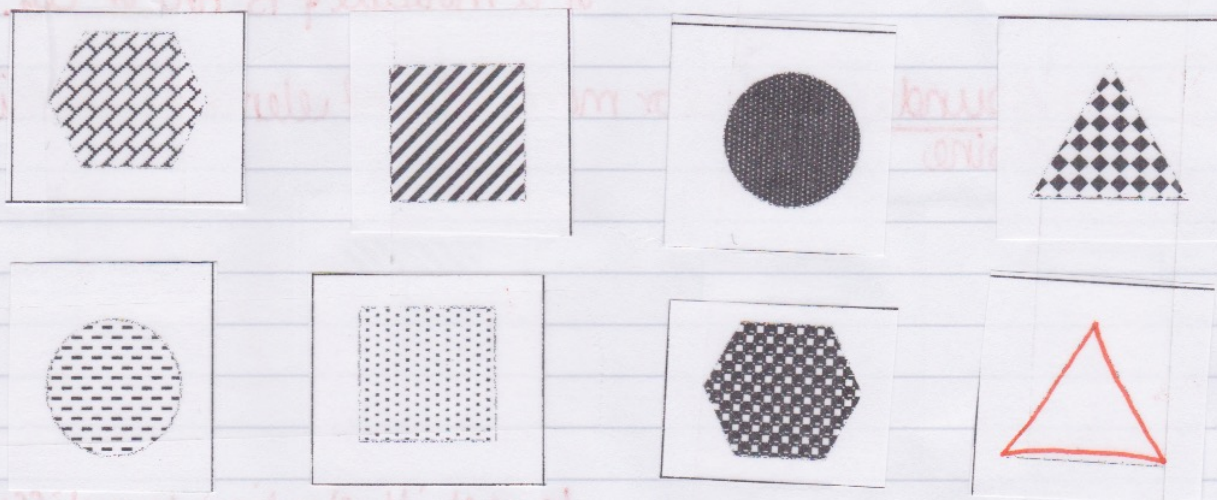
Atomic Modeling Activity

① Chemical Reaction = Law of Conservation of Matter



This chemical Rxn illustrates the law of conservation of matter b/c there are 3 ^{atoms in the} reactants, and 3 ^{atoms in the} products. Matter was not created not destroyed. It just changed forms. A chemical Δ occurred b/c a new substance was formed.

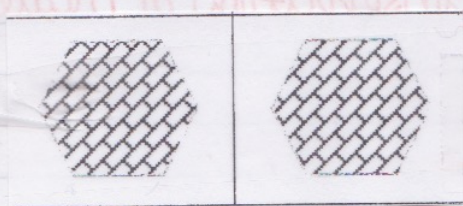
② A variety of elements (a single kind of atom) that can't be broken down into a simpler substance)



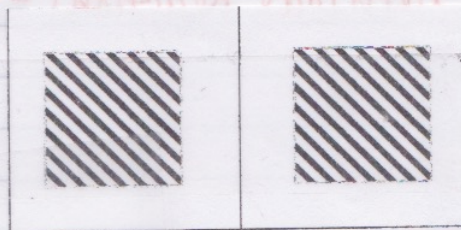
Each of the shapes are different, single elements. They can't be broken down into simpler substances or elements.

③ molecules: Two or more identical elements chemically combined; exceptions are H_2O and CO_2

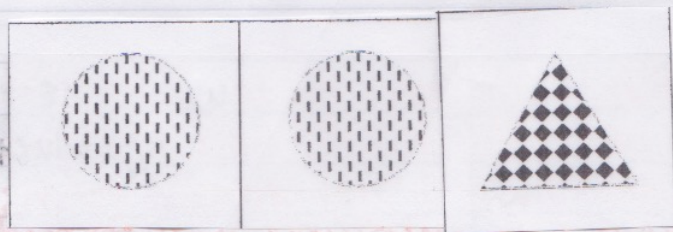
a



b

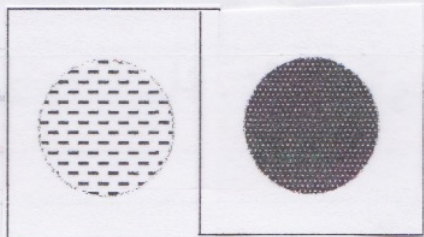
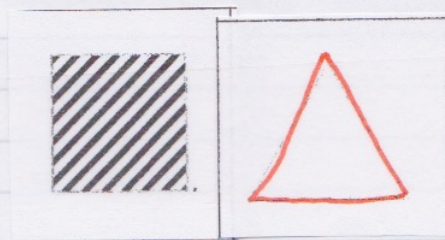
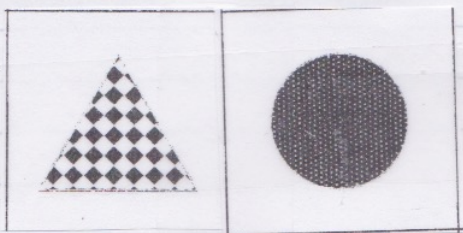


c



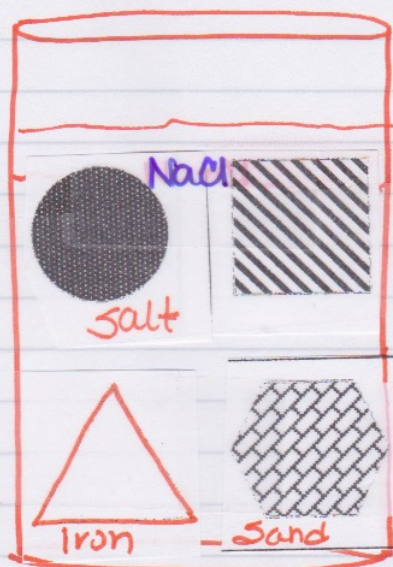
In the illustrations, a & b are identical elements combined chemically; and in c, there are 2 or more elements combined. c is the exception to the definition of a molecule & is H_2O or CO_2 .

④ Compounds: When 2 or more different elements chemically combine



In each illustration, two different elements are shown chemically combined (bonded) together.

⑤ Mixtures: Two or more substances physically joined, and can be separated



Salt, iron, and sand are not chemically combined, but are physically combined. They can be separated into their three separate substances.