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# ELEMENTS, COMPOUNDS, MIXTURES 3

# SUBSTANCES

```
graph TD; A[SUBSTANCES] --> B[PURE SUBSTANCE]; A --> C[Mixture]; B --> D[Element]; B --> E[Compound];
```

## PURE SUBSTANCE

All the particles  
are the same

### Element

Substance made  
from only one  
type of atom

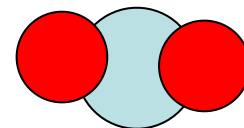
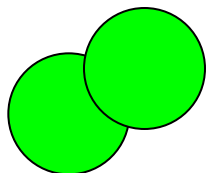
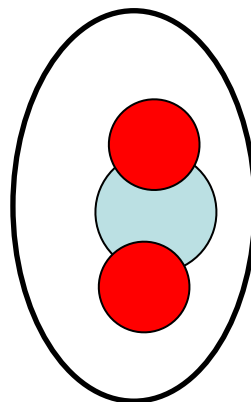
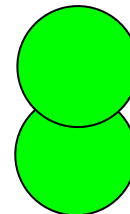
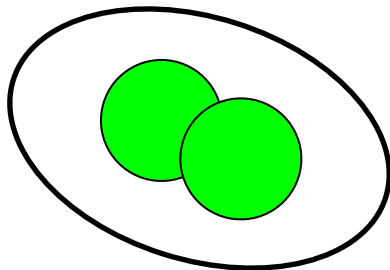
### Compound

Substance made from  
different types of atoms  
joined together

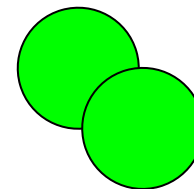
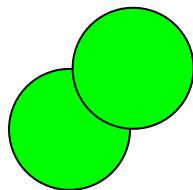
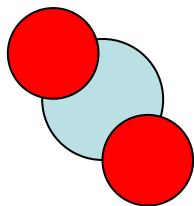
## Mixture

Contains different  
particles

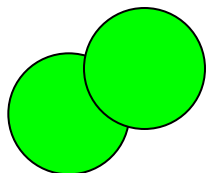
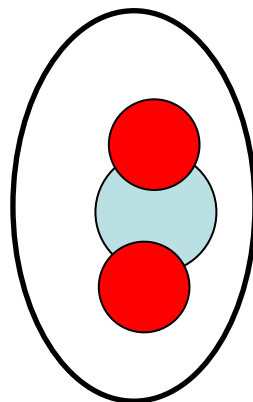
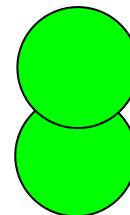
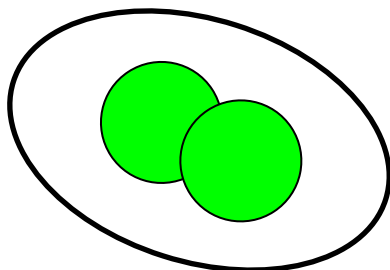
1



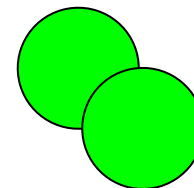
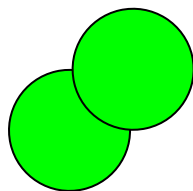
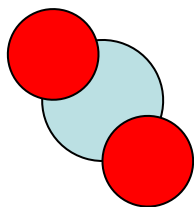
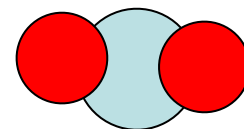
# MIXTURE



1

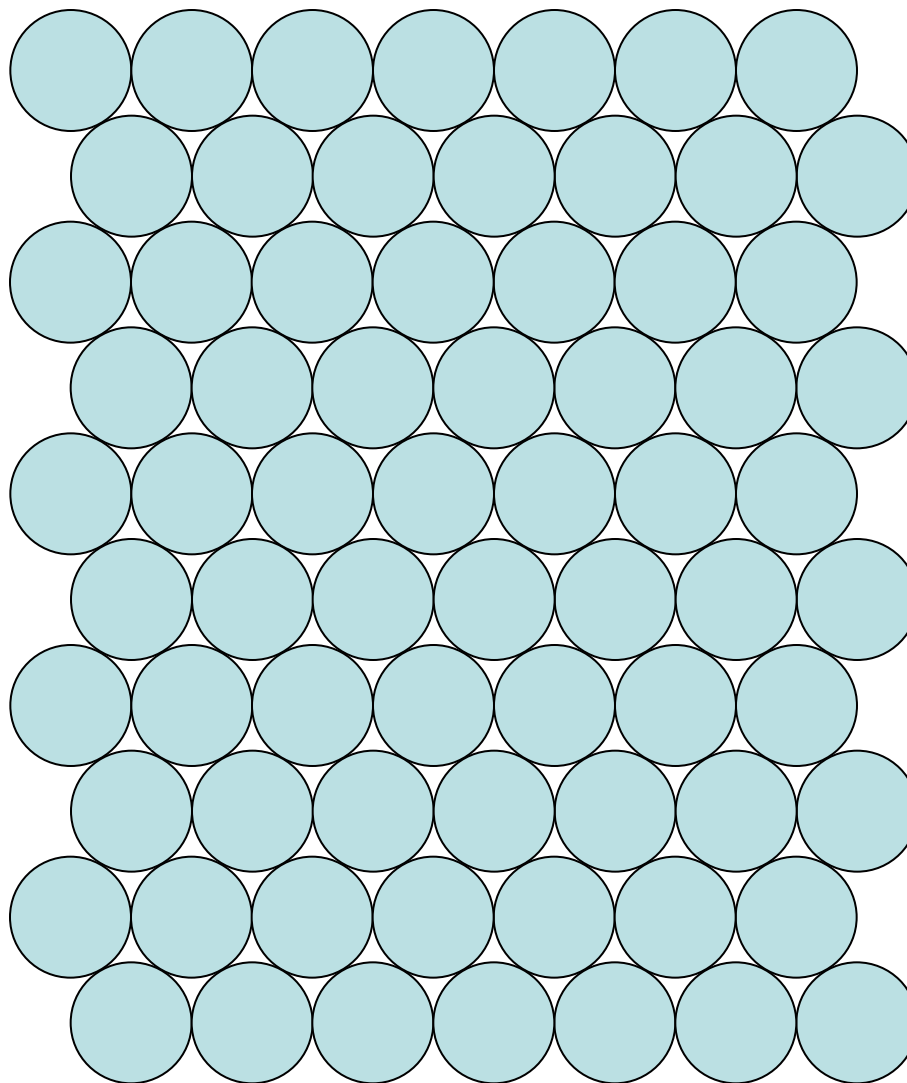


**Mixture of  
element +  
compound**

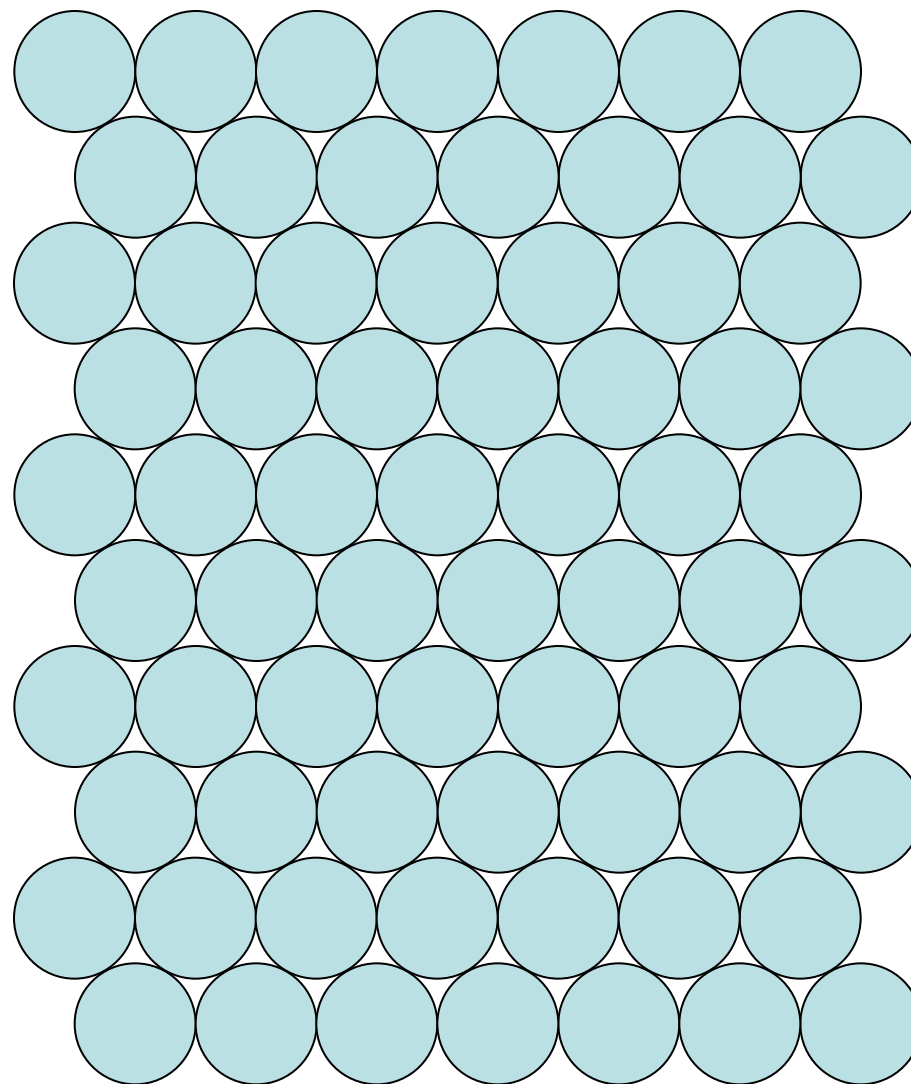


2

**PURE**

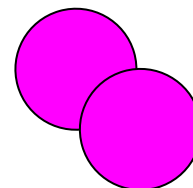
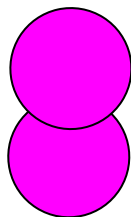
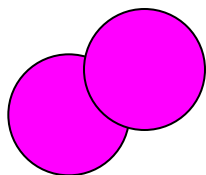
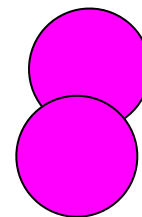
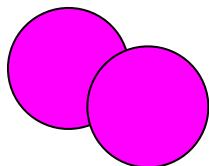


2

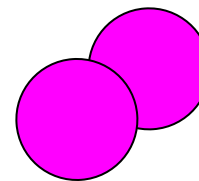
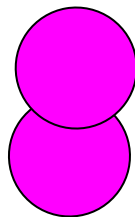
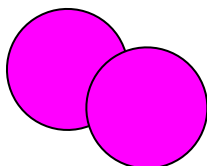


**Element**

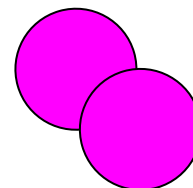
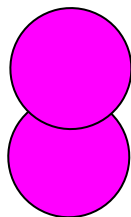
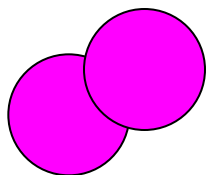
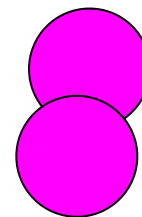
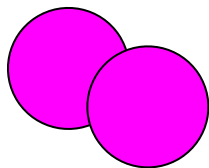
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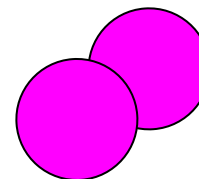
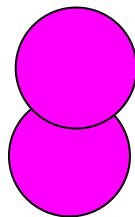
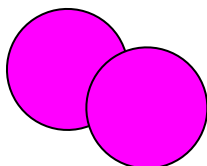
**PURE**



3

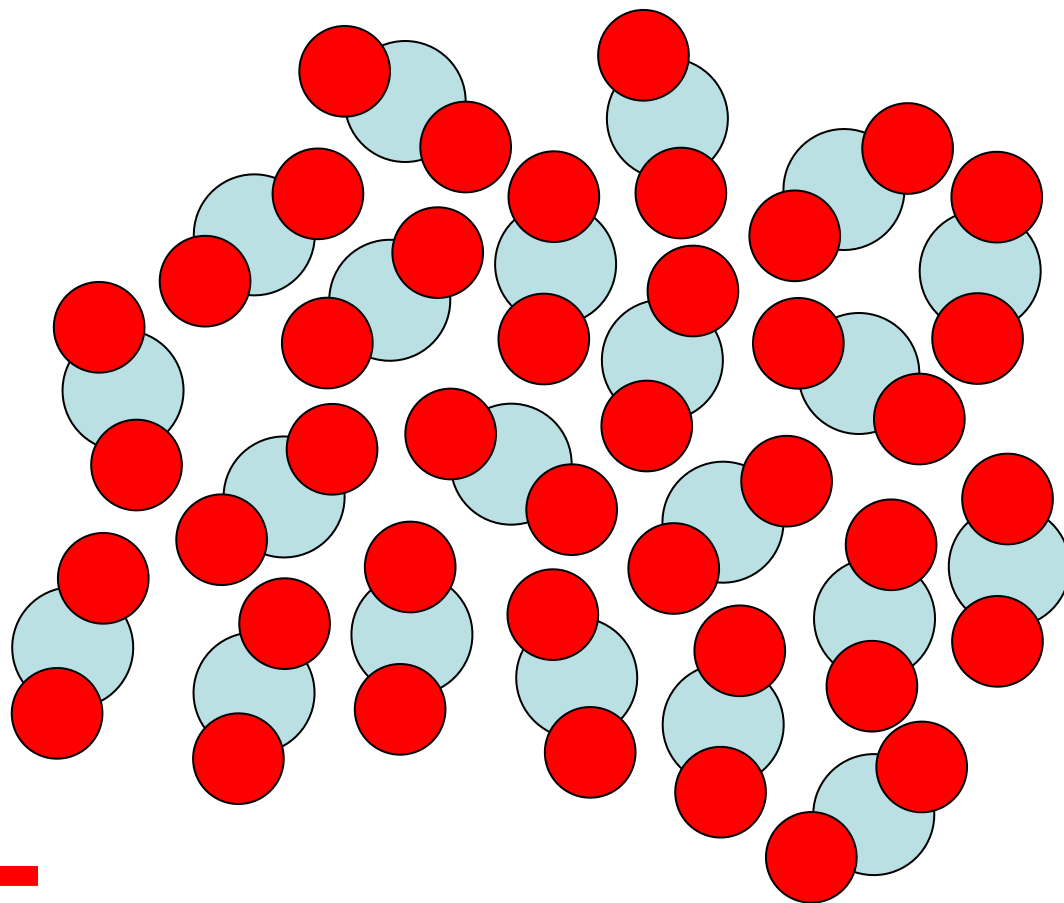


**Element**



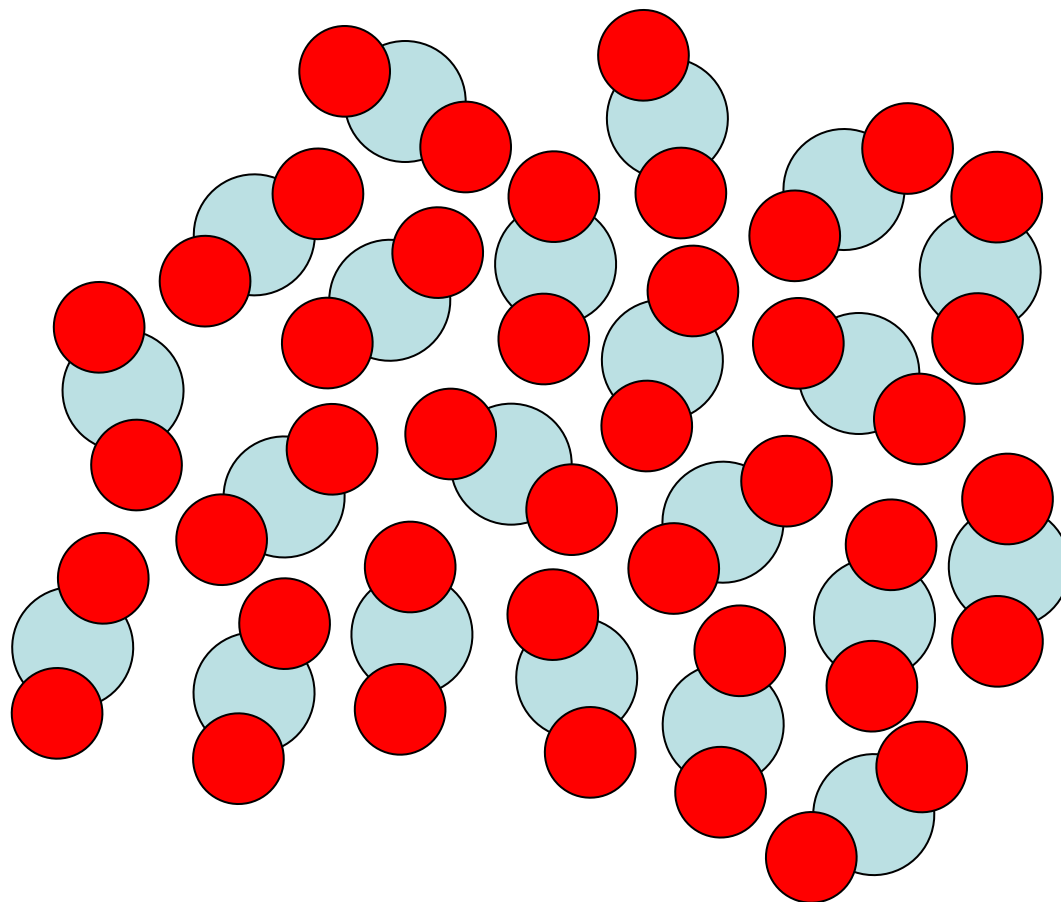


4



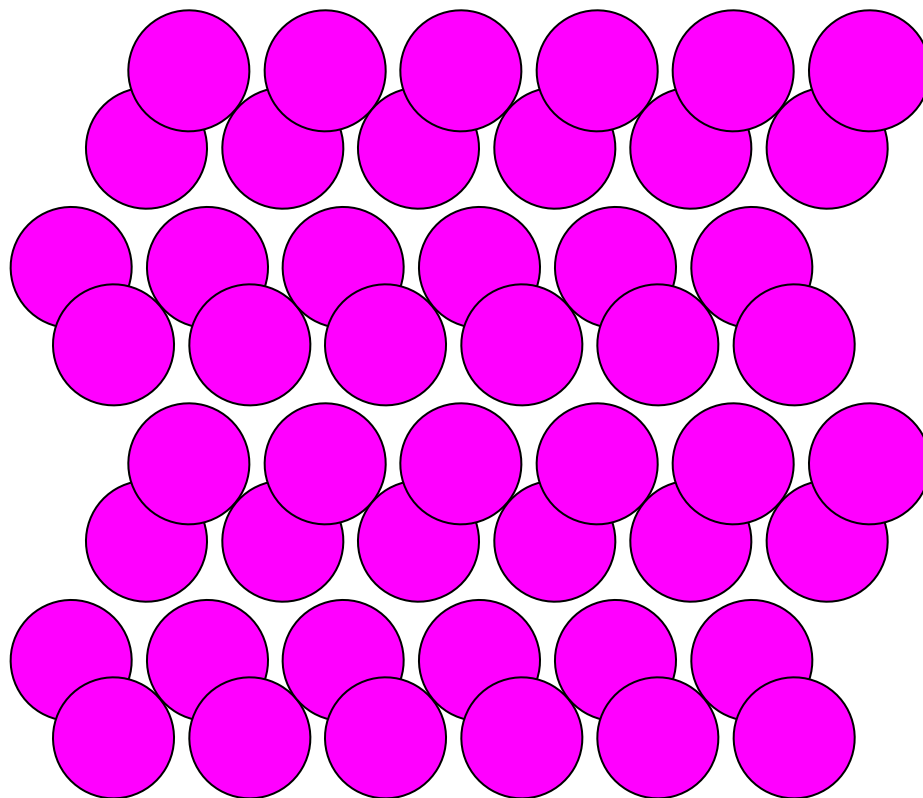
**PURE**

4



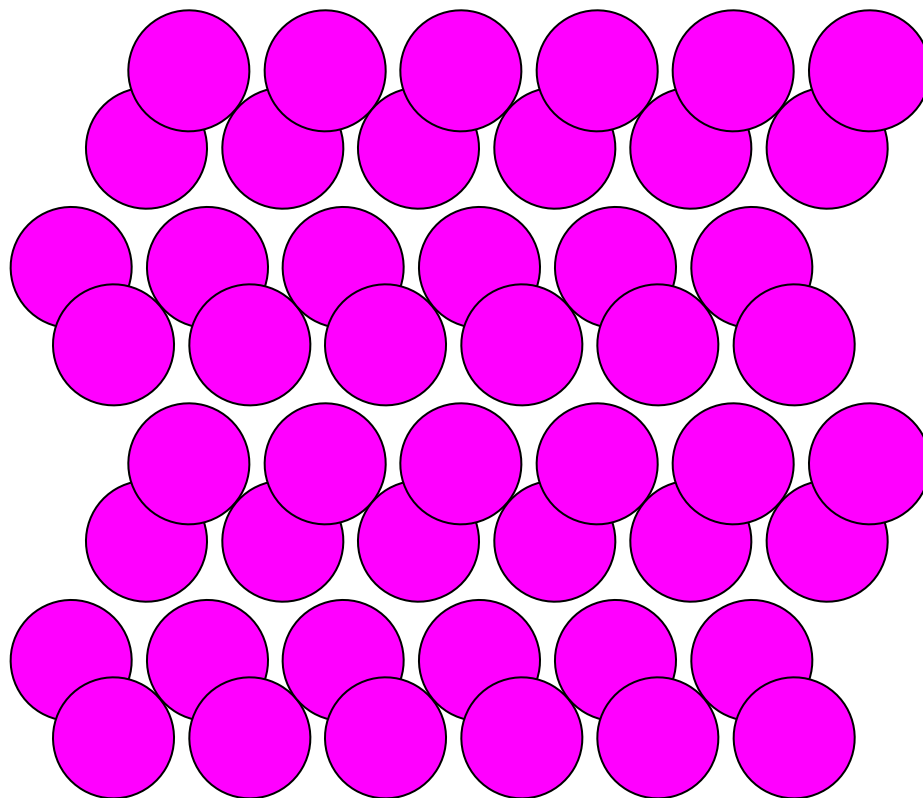
**Compound**

5



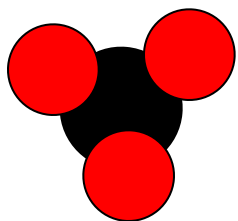
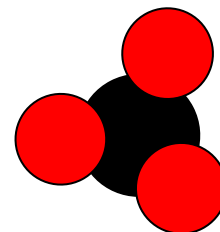
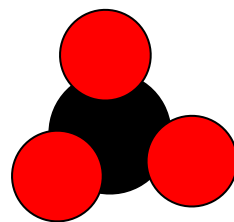
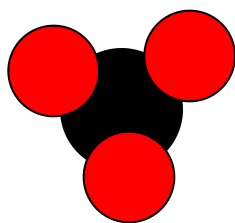
**PURE**

# 5

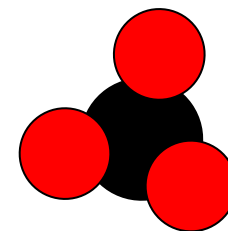
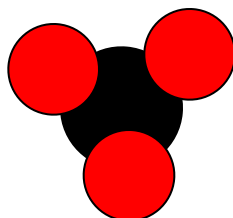


# Element

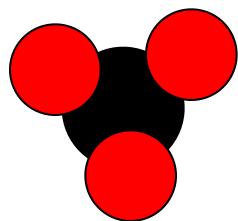
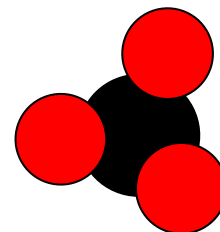
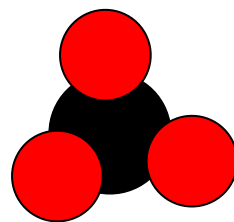
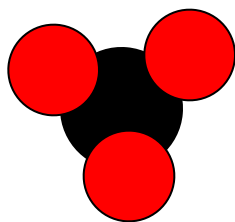
6



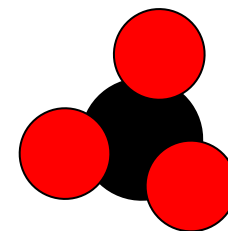
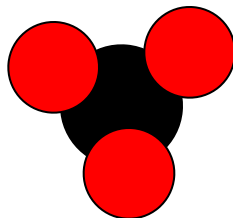
**PURE**



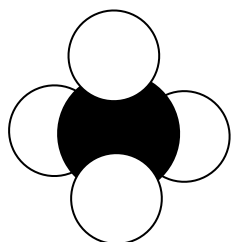
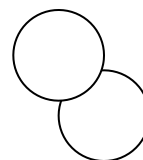
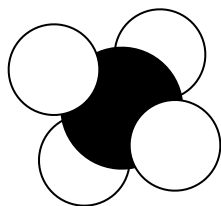
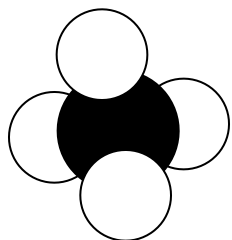
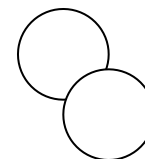
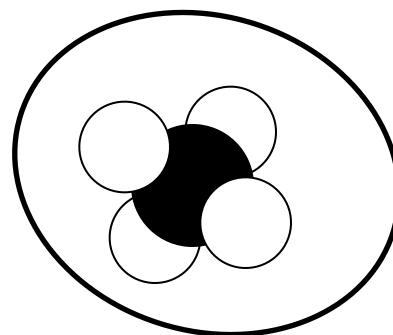
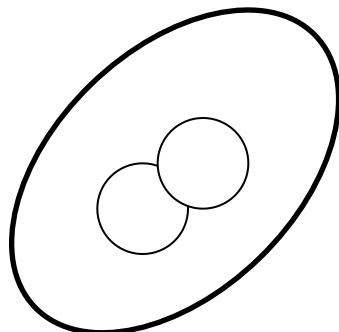
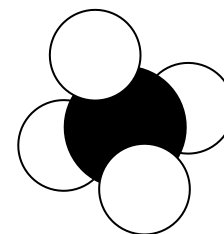
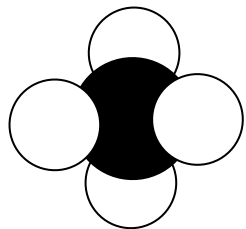
6



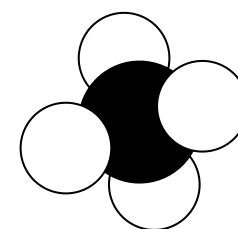
**Compound**



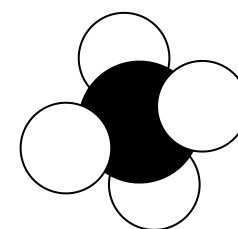
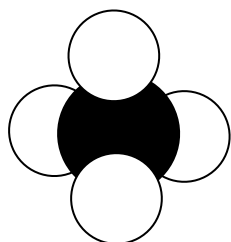
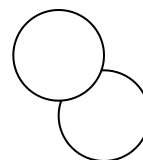
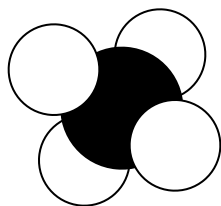
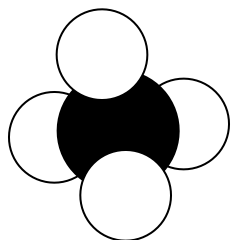
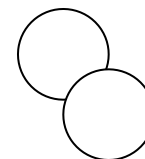
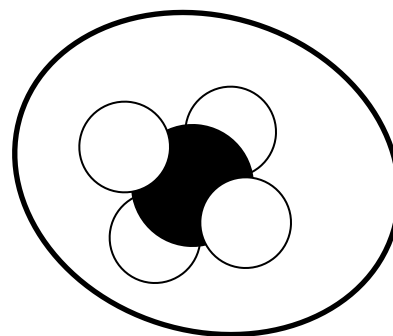
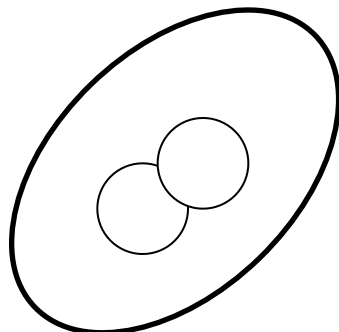
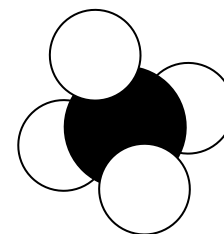
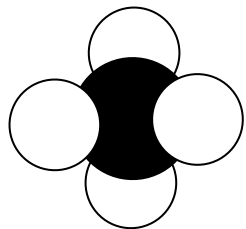
7



**MIXTURE**



7



**Mixture of  
element +  
compound**



8

# Mineral Water



**MIXTURE**

8

# Mineral Water



$H_2O$

**Lots of minerals**

9



**Diamond**

**PURE**

9



**Diamond**

**C**  
**Element**

10

A large cluster of colorful balloons floating in a blue sky with white clouds. The balloons are in various colors including red, yellow, green, blue, pink, orange, and purple. They are tied together and appear to be rising into the air.

**Helium**  
**PURE**

10



**Helium**  
**He**  
**Element**

**11**

**Air**

**MIXTURE**

# 11

# Air

$\text{N}_2$

$\text{O}_2$

$\text{Ar}$

$\text{CO}_2$

$\text{H}_2\text{O}$



12



**Carbon  
dioxide**

**PURE**

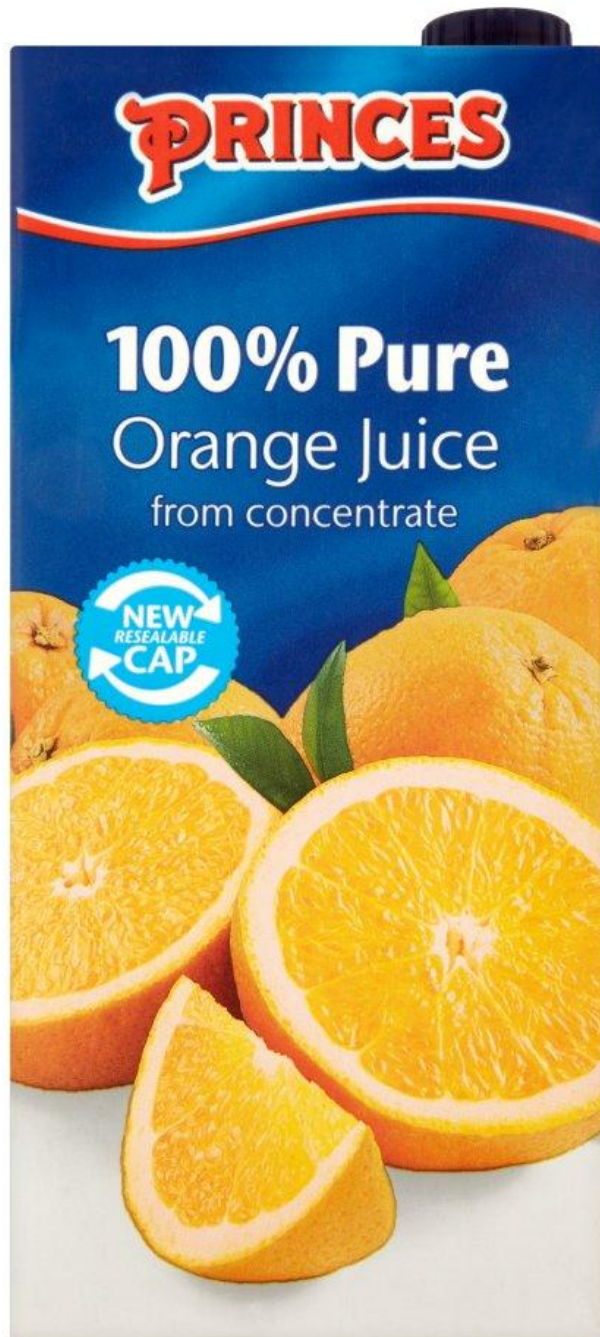
12



**Carbon  
dioxide**

**CO<sub>2</sub>  
Compound**

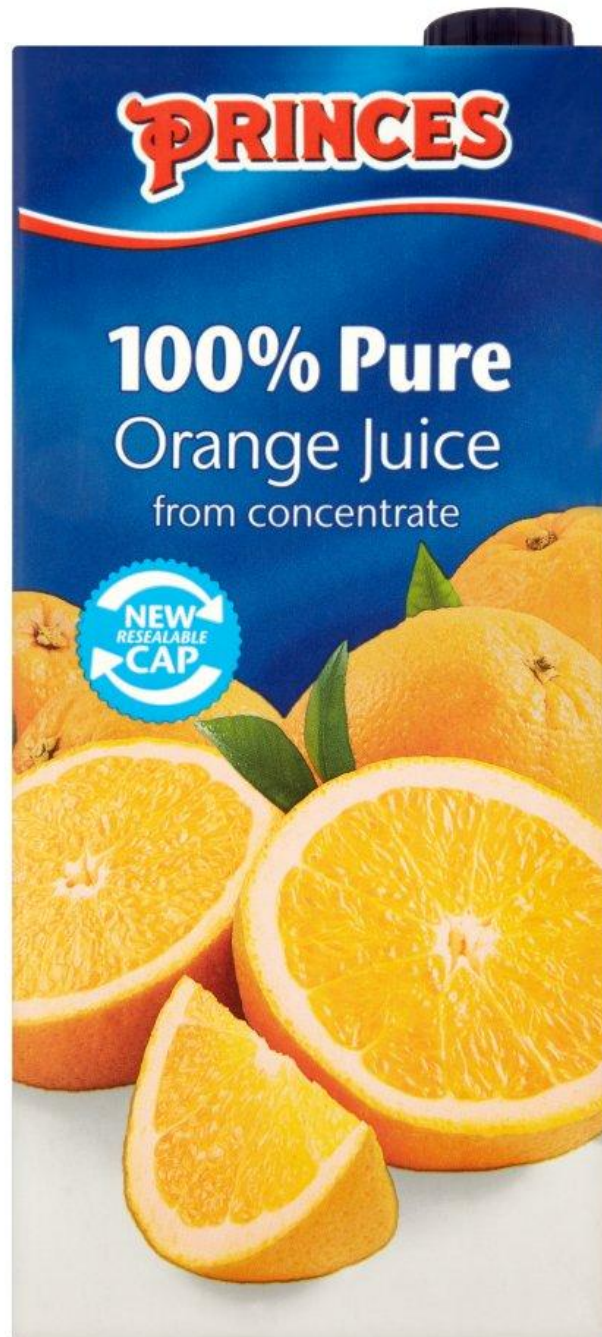
13



**Orange  
Juice**

**MIXTURE**

13



# Orange Juice

**Water**  
**Citric acid**  
**Vitamin C**  
**etc**