

2  
He  
Helium

10  
Ne  
Neon

18  
Ar  
Argon

36  
Kr  
Krypton

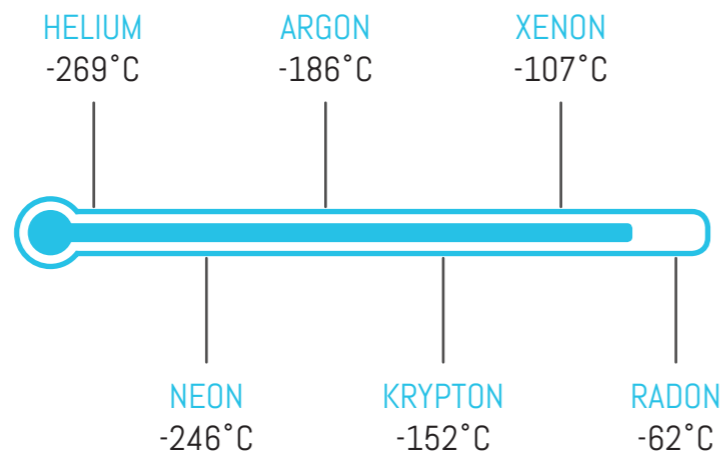
54  
Xe  
Xenon

86  
Rn  
Radon

# Group 8 - The Noble Gases

THE GROUP 8 ELEMENTS ARE ALL ODOURLESS, COLOURLESS, MONOATOMIC GASES WITH A VERY LOW CHEMICAL REACTIVITY

## BOILING POINTS



THE NOBLE GASES ARE ALL **MONOATOMIC** AND **RARELY FORM COMPOUNDS**

THE COLOURS IN 'NEON' SIGNS ARE CAUSED BY IONISED NOBLE GASES

He Ne Ar Kr Xe

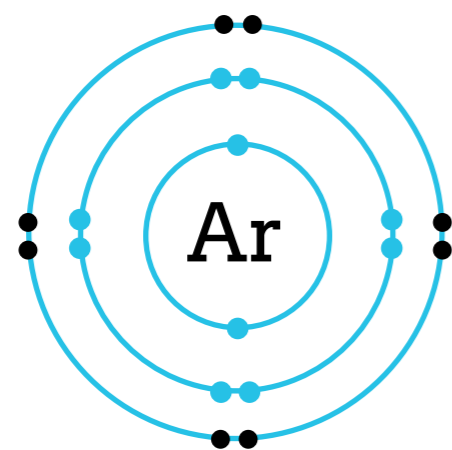
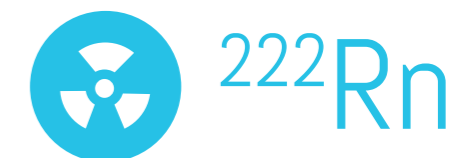
1  
H  
75%

2  
He  
23%

3  
O  
1%

**HELIUM**  
IS THE  
SECOND MOST  
ABUNDANT ELEMENT  
IN THE UNIVERSE

**RADON** IS  
**RADIOACTIVE**  
AND CAN ENTER  
HOMES THROUGH  
BASEMENTS AFTER  
**RADIOACTIVE**  
**DECAY OF ROCKS**  
BELOW THE EARTH



**ALL OF THE GROUP 8 ELEMENTS HAVE A FULL OUTER SHELL OF ELECTRONS**

THE GROUP 8 ELEMENTS ARE **VERY UNREACTIVE** AS THEY ALREADY HAVE A **FULL VALENCE ELECTRON SHELL**

**-269°C** HELIUM HAS THE LOWEST BOILING POINT OF ALL ELEMENTS IN THE PERIODIC TABLE

## USES OF THE NOBLE GASES



**HELIUM**  
BALLOONS



**NEON**  
NEON LIGHTS  
REFRIGERANT



**ARGON**  
MEDICAL LASERS  
LIGHT BULBS



**KRYPTON**  
CAMERA FLASHES



**XENON**  
MEDICAL IMAGING