

TS Tuition Chem - Atomic Structure and Periodic Table Hwk #1

1. How many protons, electrons and neutrons are there in the following atoms? Complete the following table. Note that I have given you the element names only, so you have to search for the right element symbols.

Element	Protons (p ⁺)	Electrons (e ⁻)	Neutrons (n ⁰)
Helium			
Chlorine			
Gallium			
Cobalt			
Phosphorus			
Argon			
Zirconium			
Tungsten			
Boron			
Sodium			
Tin			
Mercury			
Iron			
Gold			
Plutonium			

2. Name all the *Alkali Metals* (i.e. Group I elements) and one common chemical property.

3. Name all the *Halogens* (i.e. Group VII elements) and one common chemical property.

4. Name all the *Noble Gases* (i.e. Group VIII elements) and one common chemical property.

5. Draw the following atomic diagrams and write the electronic configurations (i.e. 2.8.8...):

a) Oxygen (O)

b) Silicon (Si)

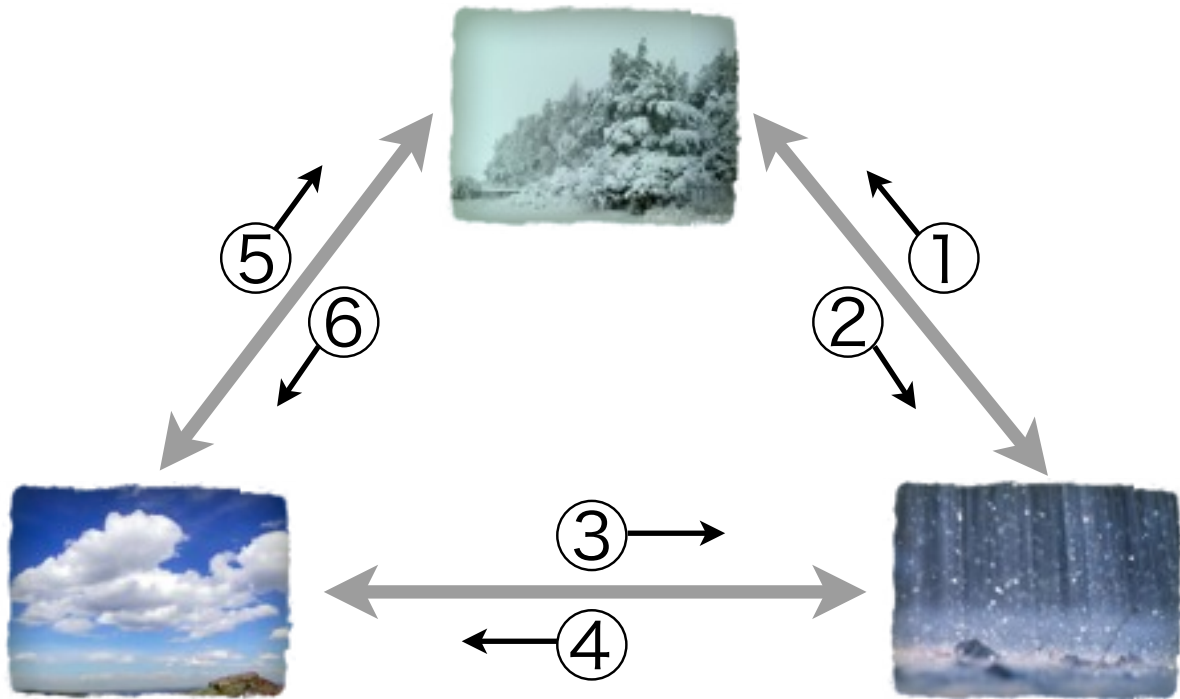
c) Potassium (K)

d) Bromine (Br)

e) Magnesium ion (Mg^{2+})

f) Sulphur ion (S^{2-})

6. Complete the states of matter cycle and give a real-life example of each occurring. Each is numbered, so write your answers below the diagram.



Name of ①:

Use of ①:

Name of ②:

Use of ②:

Name of ③:

Use of ③:

Name of ④:

Use of ④:

Name of ⑤:

Use of ⑤: Snow forming in clouds (I couldn't give you an example of this in class!)

Name of ⑥:

Use of ⑥: