1. Which element matched Mendeleev's eka-silicon?

   ☐ Gold

   ☐ Carbon

   ☐ Germanium

   ☐ Neon

2. How many electrons are in the outer shell of a Group I element?

   _____

3. What colour is chlorine gas?

   ☐ Purple

   ☐ Red-brown

   ☐ Pale yellow-green

   ☐ Colourless

4. Which are properties of transition metals? (Select all that apply.)

   ☐ hard and strong

   ☐ very low density

   ☐ form coloured compounds

   ☐ high melting points

   Tick every correct option.

5. Noble gases are unreactive because they have:

   ☐ a full outer shell of electrons

   ☐ one outer electron

   ☐ seven outer electrons

   ☐ no electrons

6. Magnesium is 2,8,2. Which group and period?

   ☐ Group III, Period 2

   ☐ Group II, Period 3

   ☐ Group VIII, Period 3

   ☐ Group II, Period 2

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   ☐ increases

   ☐ becomes zero

   ☐ decreases

   ☐ stays the same

8. Halogens become more reactive down the group.

   ☐ True ☐ False

9. Transition metals are more reactive than Group I metals.

   ☐ True ☐ False

10. Other elements react in order to reach a full, stable outer shell like the noble gases.

    ☐ True ☐ False

1. **Germanium**

   Discovered in 1886.

2. **1**

   Group I elements have one outer electron.

3. **Pale yellow-green**

   Its name means pale green.

4. **hard and strong; form coloured compounds; high melting points**

   They are dense, not low-density.

5. **a full outer shell of electrons**

   A full outer shell is very stable.

6. **Group II, Period 3**

   Two outer electrons, three shells.

7. **increases**

   The outer electron is lost more easily down the group.

8. **False**

   Reactivity decreases.

9. **False**

   False. Transition metals are much less reactive than the alkali metals, which is why iron and copper can be used for structures and pipes.

10. **True**

    A full shell is the stable arrangement elements aim for.

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