**Activity One:** Fill in the gaps with the right words from the box bellow **(4pts)**

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| --- |
| **physics- principles- atomic- science- interact- understanding- energy- investigates- Chemistry-****matter- technologies- changes- critical- composition- laws- reactions** |

**Chemistry** is the branch of **science** that studies the **composition**, structure, properties, and **changes** of matter. It **investigates** substances at the **atomic** and molecular levels, exploring how they **interact**, combine, and transform during chemical **reactions**. Chemistry also examines the **principles** governing these interactions, including the roles of **energy** and the **laws** of conservation of **matter** and energy. It bridges other natural sciences like **physics** and biology and plays a **critical** role in **understanding** and developing materials, medicines, and **technologies**.

**Activity Two**: Fill in the gap with the appropriate concept**. (5pts)**

1. **Distillation**: a process of separating substances by evaporating a liquid and recondensing its vapour.
2. **Pascal**: used to measure pressure.
3. **Electrons:** particles in an atom with a negative charge.
4. **Chemical equation**: The recipe that describes what you need to do to make a reaction take place.
5. **Combustion:** When a compound combines with oxygen gas to form water, heat, and carbon dioxide.
6. **Effusion**: When a gas moves through an opening into a chamber that contains no pressure. It is much faster than diffusion because there are no other gas molecules to get in the way.
7. **Freezing:** Change of a substance from liquid phase to solid.
8. **Melting point**: is a property of a solid, it is defined as the temperature when the liquid state and the solid state remain in a thermal equilibrium with each other.
9. **Vaporization**: Change from liquid to gaseous form.
10. **Deposition**: Change from gas to solid without becoming a liquid.

**Activity Three**: Give the right tenses of the verbs in the conditional form.(4pts)

1. If she had had (have) the time, she would have helped you.
2. If he knew (know) my telephone number, he would call.
3. I would not have recognized (not recognize) you unless somebody had told me who you were.
4. If the demand increases, prices rise (rise)
5. Unless you tell me the truth, I will never know it.
6. If I were not (not be) so busy, I would help you.

**Activity Four**: Translate from English to French and vice versa. **(4pts)**

1. En 1837, Jean-Baptiste Dumas considérait le mot "chimie" comme faisant référence à la science concernée par les lois et les effets des forces moléculaires.

In 1837, Jean-Baptiste Dumas considered the word "chemistry" to refer to the science concerned with the laws and effects of molecular forces.

1. Propriété colligative : Toute propriété d’une solution qui change lorsque la concentration change. Exemples : couleur, saveur, point d’ébullition, point de fusion et pression osmotique.

Colligative property: Any property of a solution that changes when the concentration changes. Examples are color, flavor, boiling point, melting point, and osmotic pressure.

1. Glasses and other non-crystalline, amorphous solids without long-range order are not thermal equilibrium ground states; therefore, they are described as nonclassical states of matter.

Les verres et autres solides amorphes non cristallins sans ordre à longue portée ne sont pas des états de masse d’équilibre thermique ; par conséquent, ils sont décrits comme des états non-classiques de la matière.

**Activity Five:** Reorder the following words to get meaningful sentences**. (5pts)**

Physical and chemical processes can be classified by the changes occurring on the molecular level.

Chemical processes involve changes in chemical bonds, while physical processes involve changes only in intermolecular forces.

The boiling point is the temperature at which the liquid and vapour phases are in equilibrium with each other at a specified pressure.

Solids can be transformed into liquids by melting, and liquids can be transformed into solids by freezing.

The term "chymistry", in the view of noted scientist Robert Boyle in 1661, meant the subject of the material principles of mixed bodies.