Activity of vocabulary: fill in the blanks of the following definitions with the appropriate concepts from the list below.

(crystal, maintain, ordered, elongated, directions, Liquid, molecules, orient, liquid, substances, flow.)

1- Liquid crystals are substances that flow like a liquid but maintain some of the ordered structure of crystals. Their molecules tend to be elongated and to orient in specific directions.

(replace, components, biological, augment, function, natural, Biomaterials, often, synthetic, made, lifeless, interact, medical, materials)

2- Biomaterials are those materials- be it natural or synthetic alive or lifeless and usually made of multiple components- that interact with biological systems. They are often used in medical application to augment or replace a natural function.

(value, iron, yttrium, examples, materials, Superconductors, critical, superconducting, resistance, electrical, niobium)

3- **Superconductors** are **materials** that offers no resistance to **electrical** current. Prominent **examples** include aluminium, **niobium**, magnesium diboride, cuprates such as **yttrium** copper oxide and **iron** pnictides. These materials only become **superconducting** at temperature below a certain **value**, known as the **critical** temperature.

(crystalline, cations, gas, catalysis, bonds, linkers, open, sensing, consist, Metal, porous, separation, organic.)

4- **Metal -organic** frameworks (MOFs) are a class of **crystalline** materials that **consist** of coordination **bonds** between transition-metal **cations** and multidentate organic **linkers .**The structure of MOFs is characterized by an **open** framework that can be **porous** (porous materials). MOFs can be used for **gas** storage, purification and **separation** as well as **catalysis** and **sensing** applications.