|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| **Crust** |  | 8 to 64 km thickOutermost layer of Earth |  | **Why inner core is solid, but outer core liquid?** |  | Both layers are at a very high temp. However, the pressure at the inner core is higher, causing the iron to be solid |
|  |  |  |  |  |  |  |
| **Mantle** |  | 2900 km thick500 to 2000 oCSolid but plasticine like2nd outermost layer of Earth |  | **Mineral** |  | Solid, naturally occurring, inorganic substances made from very specific chemicals, with a very specific structure. |
|  |  |  |  |  |  |  |
| **Outer Core** |  | 1. km thick

>3000OCLiquid Iron (with Nickel)  |  | **Rock** |  | Solid, heterogeneous, no specific chemical composition. Contain minerals and non-minerals |
|  |  |  |  |  |  |  |
| **Inner Core** |  | Centre of the Earth>4000OCSolid Iron (with Nickel) |  | **Streak** |  | Used to identify mineralsThe colour of a mineral in its powdered form. Mark on a streak plate |
| **Lustre** |  | Used to identify mineralsThe way a mineral reflects light from its surface |  | **Magnetism** |  | Used to identify mineralsWhether a mineral interacts (responds) to a magnetic field |
|  |  |  |  |  |  |  |
| **Hardness** |  | Used to identify mineralsMeasured on the Mohs hardness scale from 1 to 10. |  | **Diamond, Quartz, topaz, Agate** |  | Are all minerals found in the earth’s crust |
|  |  |  |  |  |  |  |
| **Breakage** **(Cleavage and** **Fracture)** |  | Used to identify mineralsThe way a mineral breaks when subjected to a force. |  | **Diamond vs Coal** |  | Both are made from carbonOne is a highly prized mineral, the other a fossil fuel we burn |
|  |  |  |  |  |  |  |
| **Density** |  | Used to identify mineralsThe mass relative to the volume ( $\frac{mass}{volume}$ )of a mineral. |  | **Colour** |  | Very unreliable property sometimes used to identify both minerals and rocks. |