# Unit 112: Construction operations and civil engineering operations

# Worksheet 25: Concrete – the materials 1 (tutor)

1. Concrete is generally made from four key ingredients. In the space provided below, name these materials and give a description of each one.

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| Material 1: Cement | Material 2: Fine aggregate (sand) |
| Description:  Comes mostly in the form of a powder.  Cement is the most important material in concrete as it is this that binds the aggregates together to provide strength and durability. | **Description:**  Fine aggregates are those having particles less than 5mm such as natural sand, finely ground stone and gravel etc.  This aggregate fills the smaller voids in the mix. |
| Material 3: Coarse aggregate (gravel) | **Material 4: Water** |
| Description:  Coarse aggregates are those having particles greater than 5mm such as uncrushed gravel, crushed stone etc.  This aggregate makes up the main body of the concrete. Crushed stone is preferred as the more angled the aggregate is, the stronger the concrete mix will be. | **Description:**  It should be clean (potable).  Water is an essential component of concrete required to hydrate the cement,  a process where the water chemically combines with the cement to make it harden. |