

REVISION CARDS - WHAT IS CONCRETE?

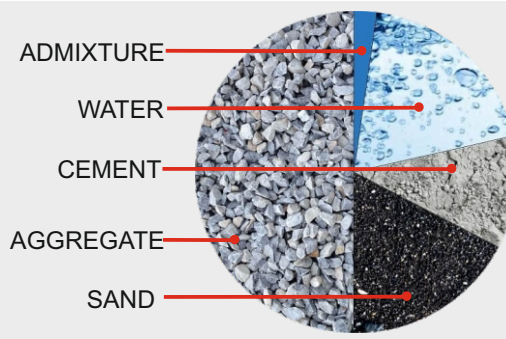
WHAT IS CONCRETE?

It is a versatile and cheap material, with a vast range of applications. Brick laying, constructing paths and driveways, foundations to buildings and walls, are some of the practical applications. Concrete has a wide range of industrial applications. These include; bridge construction, motorways, curbs, walkways and foundations to entire factories and industrial sites.

It a composite material, composed of a number of materials. Most concrete is made up of portland cement, aggregates (gravel, crushed stones) and sand. Water is added to the mix. The admixture, helps to control the setting time and waterproofs the finished concrete.

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THE NATURE OF CONCRETE



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MIXING CONCRETE

	CEMENT	SAND	AGGREGATE
General Purpose Concrete:	1	2	3
Foundation Concrete :	1	2.5	3.5
Paving Concrete :	1	1.5	2.5

FOR MORE INFORMATION AND EXERCISES ON CONCRETE GO TO

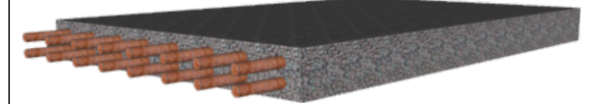
<http://www.technologystudent.com/joints/concret1.html>
<http://www.technologystudent.com/joints/reinforc1.html>

HOW STRONG IS CONCRETE?

Concrete is strong when under a **compressive** force. However, concrete is very weak when under **tension**.
 (also known as a tensile force).

Concrete can be reinforced by adding steel rods to the mixture and allowing the concrete to set solid. The steel rods ensure that reinforced concrete can withstand tensile forces. This makes reinforced concrete a composite material, that is used widely in the construction industry.

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1. What is concrete? Include the names of the materials that make up concrete.

4 marks

2. What is reinforced concrete and why is this an important way of using concrete?

3 marks

3. Using the internet as a research tool, collect five images that show the practical application of concrete. Glue the images to the back of this sheet and add a descriptive label to each one.

10 marks