Year 5: Building Bridges Knowledge Mat

Subject Specific Vocabulary		Product Outcome	Important knowledge about Bridges
functionality	Being useful, practical and right for the purpose something was made.		
accurate	Correct and without any mistakes.		 I can identify a range of structures in my local area including beam bridges, arch bridges and truss bridges. I know how triangulation is used to reinforce structures. I know how to make a truss bridge that will hold a weight.
design specification	A list of criteria a product needs to meet.		
design decisions	The decisions made in the designing process.		 □ I know how the framework of a bridge affects its strength. □ I can effectively design a
compression	Pressure which squeezes an object.		structure that can hold a weight, withstand compression, is cost effective, is well reinforced, and fits with the local environment.
reinforce	To make a structure or material stronger, especially by adding another material or element to it.	Triangulation	☐ I can design using an exploding diagram and annotated sketches.
refine	To make minor changes to improve or perfect something.		☐ I know how to use a saw, sand edges and securely join my structure.
triangulation	The use of triangular shapes to strengthen a structure.		 I know how to strengthen, stiffen and reinforce my structure. I can amend and improve my
rigid	A material that is unable to bend or be forced out of shape; not flexible.	Latchford viaduct showing	design and structure against the design criteria.
tension	A force pulling on a material or structure.	triangulation.	