

Summer Bridging Tasks for: AAQ L3 Engineering

Task 1: **Materials Research Task** Research and investigate the following material types – ferrous metals, non-ferrous metals and ceramics. Explain the important features of each, the properties of common examples and engineering uses of the materials. Include relevant diagrams/images. (2 sides of A4)



Picture: A carbon-ceramic racing disc brake with billet alloy caliper.

Task 2: **Design Task** A roofing company have asked you to design an engineering solution which would allow them to inspect an 8m high roof before carrying out repairs. Write a 6 point specification for a piece of equipment that would allow the roof to inspected remotely (inspector stays on the ground). Then create 3x quality designs with labels for the solution to their problem/brief. You may design only 1 flying (drone) solution – the other designs must use other approaches. (2 sides of A4 including designs)



Helpful sites: Wikipedia.org, technologystudent.com.

You may copy images from the internet, but text must be your own.