NATIONAL CURRICULUM:
Select, use and combine a variety of software (including internet services) on a range of digital devices to design and create a range of programs, systems and content that accomplish given goals, including collecting, analysing, evaluating and presenting data and information.

PRIOR KNOWLEDGE:
Children created a stop motion animation using 2Animate. They have also used art tools to create backgrounds and effects.

KEY VOCABULARY:
2D
3D
3D Printing
CAD
Design Brief
Points
Net
Pattern Fill
Template

Computing – Autumn 2 Year 5

Unit: 5.6
3D Modelling

purple mash

Lesson Focus:
1. What are the different view of an object available in 2Design and Make?
2. How is CAD software used in industry? Give some examples.
3. How can the objects designed in 2Design and Make be turned into 3D objects?

CONTEXT:
These lessons use the Purple Mash tool 2Design and Make. A user guide to this tool can be found in the Guides and Resources area of Purple Mash. These lesson plans make use of the facility within Purple Mash to set activities for children which they can then complete and hand in online (2Dos). This enables you to assess their work easily as well as distribute resources to all children.

STICKY KNOWLEDGE:
Be introduced to 2Design and Make and the skills of computer aided design.
Explore the effect of moving points when designing.
Design a 3D Model to fit certain criteria.
Refine and print a model.

SKILLS:
Children can explore the different viewpoints in 2Design and Make whilst designing a building.
Children can adapt one of the vehicle models by moving the points to Alter the shape of the vehicle while still maintaining its form.
Design a 3D model for a purpose. Children can print their design as a 2D net and then created a 3D model.