DT Maths

Reference	Mathematical skills requirement	Potential applications
a	Confident use of number, percentages and percentiles	Calculation of quantities of materials, costs and sizes.
b	Use of ratios	Scaling drawings.
c	Calculation of surface areas and/or volumes	Determining quantities of materials.
d	Use of trigonometry	Calculation of sides and angles as part of product design.
e	Construction, use and/or analysis of graphs and charts	Representation of data used to inform decisions and evaluation of outcomes. Presentation of market data, user preferences, outcomes of market research.
f	Use of coordinates and geometry	Use of datum points and geometry when setting out design drawings.
g	Use of statistics and probability as a measure of likelihood	Interpret statistical analyses to determine user needs and preferences. Use data related to human scale and proportion to determine product scale and dimensions.

Confident use of number, percentages and percentiles:

Number, percentages and percentiles:

Application: Calculation of quantities of materials, costs and sizes

Use of Ratios:

Ratios:

Application: Scaling drawings

Calculation of surface area and/or volumes:

Surface area and Volume:

Application: Determining quantities of materials

Use of trigonometry:

Trigonometry:

Application: Calculation of sides and angles as part of product design

Construction, use and/or analysis of graphs and charts:

Graphs and charts:

Application: Representation of data used to inform decisions and evaluation of outcomes

Application: Presentation of market data, user preferences, outcomes of market research

Use of coordinates and geometry:

Coordinates and geometry:

Application: Use of datum points and geometry when setting out design drawings

Use of statistics and probability as a measure of likelihood:

Statistics:

Application: Interpret statistical analysis to determine user needs and preferences

Application: Use data related to human scale and proportion determine product scale and dimensions