

Design and Technology

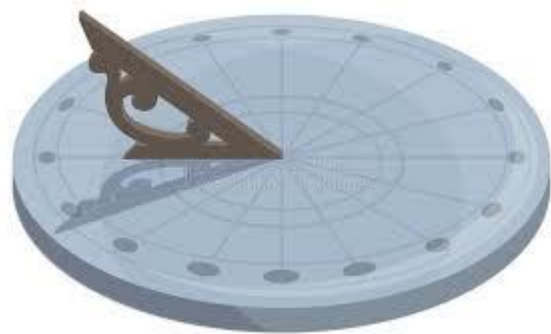
Class 3 – Cycle A

Autumn 1: Moving Cards

In this unit, pupils design and create moving cards using mechanisms such as levers and linkages, directly linking to the KS2 Design and Technology National Curriculum through designing for a purpose, selecting materials, and evaluating products. The concept of designing for a specific audience supports inclusion across all Protected Characteristics, encouraging pupils to consider diverse needs, including disability through accessibility of card use. Gender stereotypes are challenged as all pupils engage equally in creative and mechanical tasks. Cultural awareness (race and religion) can be explored through themes and occasions represented in the cards, while collaborative evaluation promotes respect for different perspectives. Although characteristics such as pregnancy, marriage and civil partnership are not directly applicable, the unit fosters an inclusive mindset by encouraging pupils to design for a wide range of users.

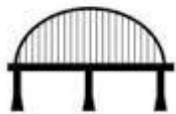
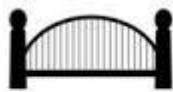
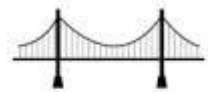
Spring 1: Sundials

This unit develops pupils' understanding of structures and scientific principles through designing and making a functional sundial, aligning with the KS2 National Curriculum focus on technical knowledge and evaluating products. Pupils consider how designs meet the needs of different users, supporting inclusion and awareness of disability through usability and accessibility. The historical context of sundials introduces opportunities to explore global cultures and contributions (race), while discussions about timekeeping across societies can broaden cultural understanding. The unit promotes gender equality by engaging all pupils in practical woodworking tasks, and age-appropriate scaffolding ensures all learners can access the curriculum. Respect for diverse viewpoints is embedded through evaluation and feedback.



Summer 1: Bridges

In the bridges unit, pupils investigate, design, and build structures, applying knowledge of strengthening and reinforcing materials in line with the KS2 Design and Technology National Curriculum. Learning about engineers from different backgrounds supports representation (race) and challenges stereotypes (gender), particularly within STEM fields. Pupils design for different users and contexts, which can include considering accessibility needs (disability). The collaborative nature of testing and evaluating designs promotes respect and inclusion. While not all Protected Characteristics are explicitly addressed, the unit encourages pupils to



think about how structures serve diverse communities, fostering an understanding of equality and real-world application.