CEDAR
Children's Academy

Design and Technology (DT) Policy

Our Vision for DT

We need the children to say 'why not?' not just 'why?'

DT allows the children to prepare themselves for the ever-changing world. It also allows the children to develop wider skills of experimenting, exploring, risk taking, creativity and greater dexterity. In addition, DT enables the children to use creativity and imagination to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. The subject allows children to learn to think independently and as a part of a team. We provide the children with opportunities to reflect upon and evaluate not only their own product but also the products of others. This in turn allows them to become engineers. We teach the children the safe and effective use of a range of tools, materials and components and develop the children's understanding of the ways in which people have engineered products in the past and present to meet their requirements.

At Cedar, we aim:

- To develop the children's understanding and appreciation of the impact DT has on daily life and the wider world.
- For children to learn how to take risks, become resourceful, innovative, enterprising, and capable citizens.
- To foster teamwork, commitment and enjoyment when engineering their own functional products with users and purpose in mind.

Children should:

- Approach DT with confidence, determination and resilience.
- Feel comfortable to make mistakes and learn from them.
- Be given regular opportunities to explore how things work and use them to inspire their own ideas.
- Make independent decisions and negotiations about their own products.

Procedures and Principles

- DT is taught as a subject in its own right but can also be used as a medium for cross-curricular learning.
- Planning and teaching is based on 'projects on a page' provided by the D&T association.
- The children have a variety of products to make for each project and are not directed to a specific one. Teaching may include group products as well as independent ones.

- The children access eighteen projects across KS1 and KS2. This is to ensure that the national curriculum requirements are met and enough DT is taught for the children to make progress.
- Each year the children complete three projects, one of which is food based. The requirements are to prepare more than one dish in KS1 and a variety of dishes in KS2. The food project will also include designing, making, cooking and nutrition.
- The projects include six principles to provide a bigger picture:
  - User – who are the products for?
  - Purpose - what tasks the products will perform.
  - Functionality - how the products will work.
  - Design Decisions - the opportunities children have to make choice.
  - Innovation - the scope children have to be original with their thinking.
  - Authenticity - how believable/real the products will be to the children.
- All DT is taught using Investigative and Evaluative Tasks (IEAs), Focused Tasks (FTs) and a Design, Make and Evaluate Assignment (DMEA). The IEAs and FTs directly feed into the DMEA.
  - IEAs – learn about existing products and DT in the wider world
  - FTs - taught technical knowledge, designing skills and making skills
  - DMEA – create functional products with users and purposes in mind
- 8-12 hours for most projects (the recommended minimum is 6 hours per project) - Average of 40-60 minutes per week.
- Teachers may 'block' the teaching of DT in order to provide a more meaningful learning experience, but the projects must not be blocked from start to finish. The children need time to process their learning and self-reflect about their own ideas and those of others.
- Food, textiles, structures and mechanisms are covered in KS1.
- Food, textiles, structures, mechanical systems and electrical systems are covered in KS2.
- DT in KS2 will involve programming, control, and CAD (computer-aided designs) in at least two projects.
- Principally teachers teach DT. Teachers have the main responsibility for planning and teaching. This does not preclude other trained adults (e.g. TAs) from providing support.
- All pupils are entitled to access the DT curriculum at a level appropriate to their needs arising from race, gender, ability or disability.

Monitoring and Assessment

- The subject leader set priorities for the development of DT in an action plan. Standards are monitored throughout the year and the plan is annotated to reflect achievements and areas identified for further development.
- On-going feedback is provided about standards across the curriculum, drawing on information from discussions with pupils and staff, learning walks, looking at planning and evidence from samples of work.

- The children will be assessed accordingly by the class teacher at the end of each project on curriculum-based criteria. The assessment grids that are used, are broken down into KS1, Lower KS2 and Upper KS2. Each building on previously learnt skills.
- The subject leader will collect progress and attainment data three times a year. This will allow the subject leader to see progress in DT across the school. This information will be used to assist teachers in planning for next steps in learning and provide subject leaders with an overview of the strengths and areas for development within their subject.

Health and Safety

- Real tools are used throughout the school including early years.
- All equipment is checked before teaching. The teacher also provides a demonstration of how to use it correctly and safely.
- The children have time to practice using the tools before beginning their final product.
- Cooking resources, saws and sharp objects are stored in the resources room.
- Before any food and nutrition lessons, or activities in DT involving sharp or potentially 'dangerous' resources take place, the class teacher must complete a Risk Assessment which should be saved with their planning.