DT Curriculum

Implementation

'let your light shine'
Matthew 5:16

LET YOUR LIGHT SHINE

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1. Modular knowledge approach

The CUSP Design and Technology curriculum is organised into blocks with each block covering a particular set of disciplines, including food and nutrition, mechanisms, structures, systems, electrical systems, understanding materials and textiles. Vertical progression in each discipline has been deliberately woven into the fabric of the curriculum so that pupils revisit key disciplines throughout their Primary journey at increasing degrees of challenge and complexity.

Each module is revisited either later in the year or in the following year as part of a spaced retrieval practice method to ensure pupils retain key knowledge and information.

Do Nows and Reteach weeks are also used to support retention of knowledge.

2. Developing Disciplinary knowledge and skill development

As well as ensuring pupils are taught key knowledge, each module is designed to offer pupils the opportunity across the year to practice in all design forms.

In addition to the core knowledge required to be successful within each discipline, the curriculum outlines key aspects of development in the Working as a Designer section. Each module will focus on promoting different aspects of these competencies. This will support teachers in understanding pupils' progress as designers more broadly, as well as how successfully they are acquiring the taught knowledge and skills.

Working as a Designer			
Design	**Make**	**Evaluate**	**Apply**
The art or process of deciding how something will look or work.	Create something by combining materials or putting parts together.	Form an opinion of the value or quality of something after careful thought.	Use something or make something work in a particular situation.

3. Lesson structure

| Feature	Function
Do Now	To recall previous learning
Hinge Knowledge Retrieval	To recall knowledge from previous years learning and/or last module
I (Model/Guided Discourse)	Class teacher will model explicitly what needs to be achieved in the lesson. In DT this can be broken down into manageable steps to help the child to achieve the end point.
We	Children are given the opportunity to explore the skill shown and allow for development on the next step. Adults and peers can give feedback on the step shown.
You	The children independently achieve the task.
Exit ticket (cumulative)	This is to assess within the lesson what the children have achieved and allows for recall of learning.

4. Knowledge notes

Knowledge notes are the elaboration and detail which help pupils acquire the content of each module. They support vocabulary and concept acquisition through a well-structured sequence that is cumulative. Each Knowledge Note begins with a brief summary of the content of each block.

Year 1
Knowledge
Note

Year 1: Mechanisms
How do you make a picture move?

Core content:

Investigate how sliders work.
Design and make a card slider product.

Technical vocabulary:

Slider – a rigid bar which moves backwards and forwards along a straight line.

Slot – a narrow cut which a slider can pass through.

Bridge – rectangles cut from rigid material and stuck to the surface which the slider passes under.

Push – a force to move something away from you.

Pull – a force to move something closer to you.

Rigid – stiff and difficult to move or bend

Connections:

Little Red Riding Hood
Deans of London (1855)

5. Formative Assessment

Assessment for learning strategies

Cold calling, thumbs up, think pair share

Hinge Points

Hinge points in DT are a good opportunity to monitor the room and assess that all children are achieving the task given and by assessing the room you have a clear idea of what the children have understood.

Exit Tickets

Exit tickets relate to the learning objective and assess where the children are in that lesson

Cumulative assessments

Cumulative assessments are designed to help children recall previous learning so they can learn and remember more.

6. Summative Assessment

End of unit assessments

End of unit assessments are completed at the end of each unit to assess where each child is at and allows the teacher to monitor gaps.

End of year assessments

End of year assessment are a combination of exit tickets from the end of unit assessments and a task to show the skills that have been learnt throughout each module.

Reteach weeks

Reteach weeks are informed from the gaps that have been identified from the end of unit assessments. They are retaught this misconception within the reteach week.

Retrieval Weeks

Retrieval weeks children complete a lesson based on the retrieval of skill or knowledge. The gap is identified by the teacher.

Autumn Anchors

Autumn Anchors are there for the next academic year to inform the next teacher where the gaps are.

7. Supporting pupils with SEND

We aim for all DT lessons and modules to be accessible to all pupils. Pre-teaching of design vocabulary provides all children with the opportunity to demonstrate an understanding of subject specific language and to apply to the later skill. The use of Knowledge Notes provide visuals to aid understanding and recall. In addition, knowledge notes are utilised in all lessons to minimise cognitive overload, so children can use and apply their knowledge more easily. Pictures are added to provide extra support.

As part of the planning and preparation for the delivery of each block, teachers will need to consider how specific activities, or the delivery, may need to be adjusted to ensure that pupils with SEND are able to access the materials and participate fully in the lesson.

Pupils with language and communication difficulties (including those with ASD) may need additional visual prompts to help them understand what is expected of them. The task could be broken down into smaller, more manageable chunks and individual task boards used to demonstrate these. Some pupils may have sensory sensitivities. For those pupils, adjustments may need to be made in order for them to access materials. Pupils who have difficulties with tasks requiring fine motor skills may need appropriate adjustments to be made to enable them to access the task and / or in order to keep them safe.

As part of termly SEND reviews, the SENDCO uses the foundation assessment tracker to identify pupils where Tier 1 and Tier 2 intervention isn't effective in ensuring mastery for all in order to provide tailored CPD and training to staff.

8. Reading and vocabulary instruction

We want our children to have an expansive vocabulary and through teacher modelling and planning, children are given opportunity to use and apply appropriate vocabulary. Design language is taught and built upon with vocabulary being a focus. Utilising research, the school explicitly teachers Tier 2 and Tier 3 vocabulary in all subjects.

Our DT curriculum is supported by a wealth of high-quality texts and articles which support pupil's learning and develop their skills in accessing information from a range of sources. The MTPs are supported with literature links to texts that are purposeful. We aim to utilise, 'Curriculum Visions,' to ensure that our subject content has materials that can be accessed by pupils both in school and at home.
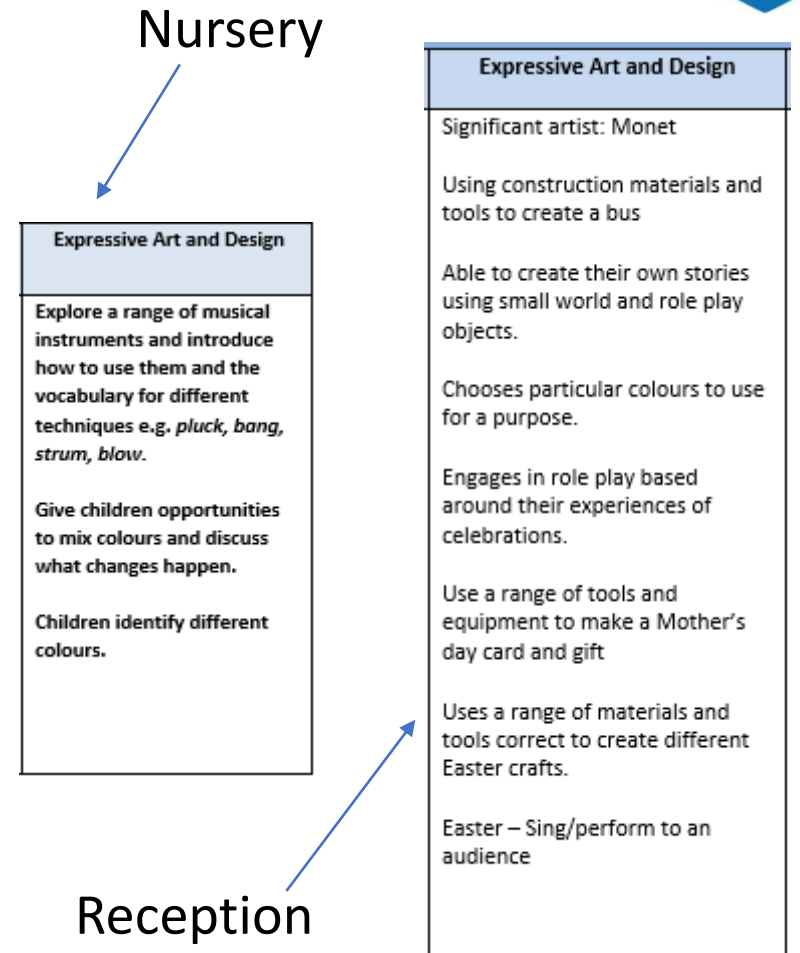
9. DT in the EYFS

At Hawkesley we have one curriculum. However, the end points for EYFS and Years 1 – 6 come from different places. For each subject we have broken down end points into component parts to create one cumulative journey from Nursery to the end of Year 6. The school has created and adopted bridging documentation to manage the difference in expectations of early learning goals and knowledge needed to successfully integrate into the National Curriculum.

The areas of the EYFS curriculum which link directly to science are:

1. Expressive arts and design
2. Physical Development
3. Understanding the World
4. Personal, Social and Emotional Development

Each EYFS medium term plan has a subject overview document that allows curriculum leaders to monitor the activities that link directly to each curriculum areas.

Examples of DT learning in Nursery and Reception include:

Nursery

Expressive Art and Design

Explore a range of musical instruments and introduce how to use them and the vocabulary for different techniques e.g. *pluck, bang, strum, blow*.

Give children opportunities to mix colours and discuss what changes happen.

Children identify different colours.

Expressive Art and Design

Significant artist: Monet

Using construction materials and tools to create a bus

Able to create their own stories using small world and role play objects.

Chooses particular colours to use for a purpose.

Engages in role play based around their experiences of celebrations.

Use a range of tools and equipment to make a Mother's day card and gift

Uses a range of materials and tools correct to create different Easter crafts.

Easter – Sing/perform to an audience

Reception

10. Celebrating diversity

We are committed to ensure that our curriculum reflects the diversity of British society.

In DT, the children are exposed to a variety of LGBTQ+, disabled and members of the GM/BME (Global Majority and Black and Minority Ethnic) including:

11. Staff CPD

All staff have undergone CPD in Cognitive Load Theory, Spaced Practice Retrieval Theory and planning the wider curriculum. Staff receive regular quality first teaching coaching from senior leaders to support with the implementation of all areas of the curriculum.

- Audit

- Briefing training based on audit needs

- Curriculum leader coaching for target teachers

- Detailed MTPs

- Access to unit support through UNITY curriculum

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