Design and Technology Feedback Prompts

Associate teachers should be demonstrating accurate subject knowledge and their understanding of effective teaching and learning by planning, delivering, and assessing their design and technology lessons using a 3-stage project approach thus ensuring all pupils gain a deep and secure understanding of the subject whilst applying the 6 design principles.

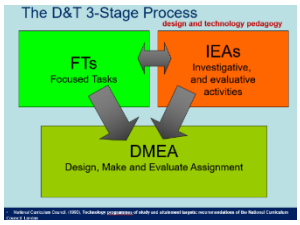
Reference should be made to the aims of the national curriculum – developing technical expertise to develop a repertoire of knowledge, understanding and skills to design and make high-quality prototypes and products for a wide range of users. They should understand how to evaluate and test ideas and products and the work of others and understand and apply the principles of nutrition and learn how to cook.

Substantive knowledge encompasses a deep understanding of the fundamental concepts and principles of design and technology, such as the design process, materials and their properties, and technological systems. This knowledge allows teachers to provide accurate and comprehensive explanations, guide students through hands-on projects, and facilitate critical thinking and problem-solving skills.

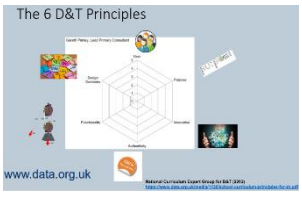
Disciplinary knowledge involves staying updated on the latest advancements, trends, and best practices in design and technology education. This includes an awareness of ethical considerations and sustainable practices. Teachers with a strong disciplinary knowledge can inspire students, foster innovation, and help them develop a broader understanding of the impact of design and technology on society and the environment.

By combining both substantive and disciplinary knowledge, educators can create an engaging and meaningful learning environment that empowers primary students to become creative thinkers and proficient problem solvers in the realm of design and technology.

Procedural Knowledge related to teaching primary design and technology encompasses the practical skills, processes, and methods involved in effectively instructing children in this subject. It involves the ability to plan and deliver engaging lessons, create a safe and inclusive learning environment, and guide students through hands-on activities. This includes teaching techniques for introducing design concepts, fostering creativity, and encouraging critical thinking and problem-solving skills. Additionally, procedural knowledge in teaching design and technology includes expertise in using various tools, materials, and technologies, as well as facilitating collaborative projects and providing constructive feedback to students. By applying procedural knowledge, educators can empower primary students to explore, create, and innovate in the realm of design and technology, setting a strong foundation for their future learning and careers.



Design and Technology should be taught through Design Make, Evaluate Projects following the 3-stage process and adhering to the 6 design principles.



Key Concept:	What to look for
Designing Understanding contexts, users and purposes. Generating, developing, modelling and communicating ideas	How is previous learning and prior knowledge considered in the context of this lesson? How does the Associate Teacher facilitate communication of ideas between children and between the children and the teacher? How do they ensure that children consider the **6 design principles** in their designs – including user and purpose? How does the Associate Teacher support all children to record their ideas including those with disabilities and special educational needs?

	How do they encourage children incorporate their skills, knowledge and understanding from previous lessons into their designs? How does the Associate Teacher incorporate choices for the children to make decisions and develop their creativity?
Making Planning Practical skills and techniques	How is previous learning and prior knowledge considered in the context of this lesson? How is questioning and guidance used to support resilience when things go wrong? How effectively does the Associate Teacher model relevant skills for this project? Are the children given opportunities to practise skills before designing their own products? [**Focused Tasks**] How does the Associate Teacher encourage the iterative design process to be employed? How do they ensure that tools and processes are used safely and efficiently?
Evaluating Existing products Own products and ideas Key Events and Individuals	How do Associate Teachers support children to use the 6 design principles as a basis for critical evaluation of existing products? [**Investigative and Evaluative Activities**] How do Associate Teacher s support children to share positive constructive criticism with each other? How do they help children to consider the impact of each stage of the design process on the final outcomes? How do Associate Teachers support children to create their own learning goals for future projects based on their evaluations? Does the Associate Teacher make links to the evolution of ideas which are relevant to the skills and concepts that they are teaching? Are children introduced to notable inventors, influential designs, industrial revolutions? Are children encouraged to consider ethical and environmental issues and sustainable design?
Technical knowledge Making products work	**Electricity** Does the Associate Teacher build on learning from science to develop children's practical understanding and use of materials and (in KS2) electric circuits? **Mechanisms** How well does the Associate Teacher model construction and principles of mechanisms such as levers and linkages in KS1 and pulleys in KS2? **Structure** How does the Associate Teacher support children to understand how to shape and join materials to make structures within their designs, considering strength, stiffness and stability? **Textiles** How does the Associate Teacher teach children to create 3D textile products by joining textiles with a needle and thread?
Food technology Food preparation, cooking and nutrition Where food comes from	How do Associate Teachers help children to understand the benefits of a healthy eating by building knowledge around nutrients in different foods and how to eat a balanced diet? How effectively does Associate Teacher model relevant culinary skills such as chopping, peeling and grating Does the Associate Teacher facilitate creativity by giving children choices to make in relation to skills and ingredients? Are children taught to understand where food comes from, including animals, plants, farming, home-growing, seasonality and imports?
Adaptive teaching in design and technology	Are all pupils enabled to access the design and technology content taught? Are adaptations made in terms of ***how*** design and technology content is taught rather than the content itself? Which adaptive strategies are used to challenge and support pupils with SEND and/or EAL to access to the history lesson (e.g. the use of scaffolded resources such as sprung scissors, alternative ways for pupils to communicate ideas, targeted adult support)? How effective are these?
Assessing learning and progress in design and technology	Has the Associate Teacher identified important content and concepts they will teach and assess? How do they check whether pupils know these? Does the Associate Teacher use a range of assessment methods effectively to assess knowledge, understanding and/or progress throughout the lesson? Does the Associate Teacher draw valid inferences about what pupils know from formative assessment used during the lesson? Does the Associate Teacher address any gaps in learning or misconceptions which are identified through formative assessment? How will assessment inform pupils' next steps in design and technology learning?

Target Setting: At least one subject specific target should be set following an observation. This should include **what** is the next step (to support Associate Teacher progress), **why** is this important (impact on pupil progress), and **how** will this be achieved (what actions are needed?)

E.g. Assuming children are observed using bench-hooks correctly but hacksaws incorrectly (common error): To model safe and effective use of a junior hacksaw in order to develop children's skills to enable them to shape resistant materials by showing children how to correctly grip and gently move the tool across the material in long strokes to use all the teeth on the blade.