




Design and Technology Progression of Knowledge

Disciplinary Knowledge- thinking like a designer

Disciplinary knowledge is knowledge about how designers investigate choice of materials, how to evaluate whether these choices were correct or if anything could have worked better. Children learn disciplinary knowledge within relevant design and technology contexts (i.e the substantive themes such as materials.) They design and create something that fulfils a brief which allows them to place what they have created in a relevant context for today with transferable skills for problem solving practically in the future.

The disciplinary knowledge can be split into 3 different concepts

- Choose and apply- deciding what materials would be best suited for the task considering the design brief, target audience and prior knowledge of materials needed.
- Evaluate- looking at how well the finished product turned out, does it meet the brief, considering the thoughts of others.
- Resolve- using the evaluating knowledge, what can they then do to further this product or what could they try next time to upscale this.

Concepts	Choose and apply 	Evaluate 	Resolve 		
Curious Caterpillars 2-3 Years	Choosing what they will use to make their junk models and towers. Question what will it look like?				
Blossoming Butterflies 3-4 Years	Choosing what they will use to make their junk models and towers. Question what will it look like?				
Reception	Choosing what they will use to make their junk models and towers. Question what will it look like? Which tools can we use for this job? i.e scissors for cutting, glue for sticking	Discussing what looks good, how can we make it even better?	Re- trying to build their model/ tower again taking into consideration the previous attempt.		

Key stage 1	Exploring different materials and choosing what they will make depending on the product brief.	Talk about the design and explore other peoples examples and say what they like and dislike about them			
Lower key stage 2	Exploring new ideas and choosing which shape and material fits the brief with some group discussion on choices and why they have chosen this.	Explain how well products have been designed. Explain why materials have been chosen. Discuss what methods of construction have been used and why. Explain how well the product has worked.	If they were to do it again, what would they use and why? How could they fix any issues that arose from before?		
Upper Key stage 2	Explain ideas and choose which shape and material fits the brief with some group discussion on choices and why they have chosen this. Identify the needs, wants, preferences and values of individuals and groups and use this to choose materials and design of the product. Develop a simple design specification to guide their thinking drawing on research	Critically evaluate the quality of the design, manufacture and fitness for purpose of their products they design and make.	Use final evaluation to suggest where they might take their product next. Has this inspired anything else? Will they take it in another direction?		

