

## Barriers to and solutions for Engagement, Progress and Achievement in Design and Technology

- Clarity of instruction, explanations and modelling are crucial
- **Be aware of safety with the use of materials and tools – extra supervision may be needed**
- Support **motor planning** for children with certain types of SEN
- Provide **explicit skill teaching** for those who need it
- Ensure that children can see success
- Motivation is vital to bring about engagement – if it feels too hard or too easy it will not be motivating
- Adapt to go with interests of the children

	Hearing Impairment	Visual Impairment	Dyspraxia (fine/ gross motor)	Memory/ processing	ASC/ADHD	Speech and Language	Cognition	SEMH
Barriers identified by SENCo/Class teacher	<ul style="list-style-type: none"> <li>• Difficulty in hearing instructions from teacher/peers</li> <li>• Filtering noise to hear what is important</li> <li>• Low self esteem</li> <li>• Difficulty with vocabulary.</li> <li>• Difficulties in working safety in practical activities- may have misheard</li> </ul>	<ul style="list-style-type: none"> <li>• May struggle with contrasting colours</li> <li>• May struggle to work practically</li> <li>• Safety when working with equipment</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty in recording in writing and diagrams</li> <li>• Cutting out and sticking in</li> <li>• Use of tools</li> <li>• Working safely with equipment- cutting, drilling, sawing, cooking</li> </ul>	<ul style="list-style-type: none"> <li>• Difficulty recalling instructions</li> <li>• Difficulty recalling prior learning (long and short term)</li> <li>• Working safely if multiple instructions</li> <li>• Difficulty in formulating multiple ideas or designs</li> </ul>	<ul style="list-style-type: none"> <li>• Noise and movement – overstimulating</li> <li>• Sharing space and equipment with others</li> <li>• Sensory issues- noise, smell, taste, texture</li> <li>• Safety with using resources</li> <li>• Organisation</li> <li>• Frustration is product does not match brief</li> <li>• Less structured time</li> <li>• Rigidity over chosen design</li> </ul>	<ul style="list-style-type: none"> <li>• Safety with using resources</li> <li>• Key words unfamiliar</li> </ul>	<ul style="list-style-type: none"> <li>• difficulty in understanding</li> <li>• difficulty recording in a way which supports learning and retrieval</li> </ul>	<ul style="list-style-type: none"> <li>• Motivation</li> <li>• Participation</li> <li>• Team/partner work</li> <li>• Sharing materials and “air-time”</li> </ul>



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Solutions Identified by subject co-ordinator	<ul style="list-style-type: none"> <li>• Pictorial representations to support understanding</li> <li>• Vocab lists and explanations</li> <li>• Position within the class</li> <li>• Modelling under visualiser</li> </ul>	<ul style="list-style-type: none"> <li>• Enlarged resources</li> <li>• Extra supervision when using tools</li> </ul>	<ul style="list-style-type: none"> <li>• Graphic organisers</li> <li>• Alternative ways of recording</li> <li>• Simplification of diagrams</li> <li>• Hand over hand support in practical lessons if needed</li> <li>• Risk assess safety needs on individual basis</li> </ul>	<ul style="list-style-type: none"> <li>• Graphic organisers</li> <li>• Step by step instructions</li> <li>• Visual prompts</li> <li>• Hovering adult for support</li> <li>• Instructions broken into steps</li> <li>• Modelling under visualiser</li> </ul>	<ul style="list-style-type: none"> <li>• Visual representation</li> <li>• Pre warn- eg noisy drill</li> <li>• Ear defenders if needed</li> <li>• Careful positioning of children- time out if necessary</li> <li>• Chunk activities</li> <li>• Clear instructions</li> <li>• Support for motor skills may be needed</li> <li>• Be aware of sensory issues – do not force to touch certain items etc.</li> <li>• Own set of resources if needed</li> </ul>	<ul style="list-style-type: none"> <li>• Key words given with visual prompts</li> <li>• Reduced/ alternative recording</li> <li>• Instructions broken down into steps</li> <li>• Show videos where necessary (available on Kapow)</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge/graphic organisers</li> <li>• Word banks</li> <li>• Alternative methods of recording</li> </ul>	<ul style="list-style-type: none"> <li>• Clear end points</li> <li>• Clear expectations</li> <li>• Modelling and explanations</li> <li>• Extra supervision when using tools</li> <li>• Hovering adult for support</li> <li>• Careful grouping</li> </ul>