Support SEND Pupils in Mathematics

Barriers to Mathematics	High Quality Teaching Strategies	Support 'additional to' or 'different'
Difficulties recalling times tables to aid calculation.	Play times table games, sing times table songs where short spells are time are available e.g. lining up for lunch time. Visual supports in the classrooms. Times tables chart/word mats. Use short time opportunities in the day to rehearse e.g. when lining up, at the end of the day. Repeat associated number facts e.g. division facts. Use 101 maths- times table timed challenges online Use of times table rockstars for specific children e.g. during basic skills time. Limit times table rockstars to one single times table be less overwhelming for some pupils.	Precision Teaching – focus on one times table at a time and revisit, assess and review daily. Multi-sensory pre-teaching where adult is available – use of games, songs, actions – focus on the times table needed within the next lesson. Limit the facts within the times table as required. Create a times table book as a reference point within lessons for specific pupils. Tailor homework to focus on timetables.
Difficulties learning and retaining new concepts.	Encourage learners to make jottings/notes where able to revisit as a tool to support their independent work. Provide parents with a 'how to' guide when sending homework. - worked examples. Success criteria provided for books as a reference point- 'how to' guide. Use on concrete resources / apparatus to represent visually (Maths bot- on screen manipulatives) (Maths miracle website – basic skills revision) Practice fluency or new concepts outside the maths lesson e.g. during science learning, dates in history Build on successful prior learning – show what pupils already know first and then build upon this with new learning example to connect ideas. Create a warm up to the maths lesson	Consider pre-teaching prior to a new concept. Consider revisiting a concept with an individual or group of children at another time to reinforce new ideas. Provide worked examples as a reference point to refer to. E.g Maths working wall Tailor homework for individuals to repeat and reinforce a challenging concept. Provide a video tutorial on an ipad for pupils to refer back to when tackling more challenging concepts. 'How to' guide.

	using a skills which may be needed within the lesson to rehearse e.g. when dividing by 7 in a lesson rehearse the 7 times table at the start of the lesson.	
Difficulties understanding or interpreting mathematical language (including vocabulary with the same meaning such as 'add', 'plus')	When asking questions verbally repeat using a different phrase e.g. How many in total? How many altogether? Use of a working wall or alternative visual support to display new vocabulary as a reference point. Use of Stem sentences. Use the 'say and repeat' method e.g. model the sentence, pupil says it back to check understanding. Use of mnemonics, rhymes, actions phrases to help with recall. Provide 'on the spot' feedback tailored to individuals to help move them forwards.	Word mats for individuals. Pre-teaching of key vocabulary and its definition.
Difficulties interpreting questions written in a different form e.g. a worded problem	Create questions tailored to the learners interests to encourage engagement. Consider pupils pairings – can one able pupil read the question to another to help with understanding. Consistent use of Stem sentences. Use the 'say and repeat' method e.g. model the sentence, pupil says it back to check understanding. Consider worksheet presentation – reduce the amount of questions or consider chunking into smaller sections so pupils are not overwhelmed.	Highlight key words of reference within the question to help pupils understand the important information. Create a picture or image representation alongside the written questions to help with conceptual understanding. Adult support where applicable to read the question to the pupil. Record questions verbally to play to pupils or use ipad tool 'text to speech' for pupils to have question read aloud using technology.
Difficulties using mathematics equipment or drawing mathematics diagrams e.g. rules, protractors, graphs	Provide paper with larger squares if required. Scaffold graph/table drawings e.g. provide the labelled axis in advance, provide a labelled table. Use of on-screen manipulatives to demonstrate.	Pre-teaching of equipment to enable confidence in the lesson. Adult support where available. Consider revisiting a concept with an individual or group of children at another time to reinforce new ideas.