Support for Pupils with SEND in Mathematics at DFPS

Sound and light issues:

- Interactive whiteboards are non-reflective to reduce glare.

Seating:

- Seating should allow all pupils in the class to communicate, respond and interact with each other and the teacher in discussions.
- Avoid the need for copying lots of information.

Resources:

- Use systems (such as drawers) so that maths equipment can be accessed by all and labelled.
- Modified maths equipment is available in the classroom, including tactile and specialist equipment for shape, space and measure to overcome difficulties in managing visual information.

Displays:

- Displays are accessible, within reach, visual and tactile
- Displays are engaging
- Clear, broken down steps to learning.

Working with additional adults

Plan for:

- Pupils to be pre-tutored in important mathematical vocabulary, concepts and/or processes
- Scaffolding when pupils use equipment
- Help for pupils, e.g. pupils with a hearing impairment
- Prepare resources

Multi-sensory approaches

- Find out how pupils prefer to learn mathematics, including visual, auditory and kinaesthetic style.
- Build on pupils' preferred learning style when explaining mathematical concepts, by exploiting different media e.g. stories, acting out processes, models etc.
- Explore concepts in different forms e.g. as a word-sentence, sequence of body language, pictures, puppets, objects etc.
- Use concrete or visual support for mathematical discussions whenever possible.
- Exploit the many forms of mathematical representations e.g. pie charts, number lines, abacus, tiles etc.
- Simple audio recording devices can replace the need for written notes during activities.

Low-arousal areas

- Low-arousal areas are planned for pupils who may need it
- Area includes only immediately relevant materials/resources to minimise distraction.

Unfamiliar learning environments

- Pupils are prepared adequately for changes to their mathematic learning environment e.g. outside.

Grouping pupils

- All forms of pupil grouping including pupils with SEN and/or disabilities
- Transition from whole-class to group or independent work, and back, is clearly signalled.

IT

- Pupils can try out hypotheses with IT Programmes
- Turn mathematic ideas into graphic and 3D forms
- Practise and enjoy developing their abilities in calculation using Timetables rockstars, Numbots and Mathsframe
- Pupils can react quickly to opportunities for mathematical thought in their environment e.g. taking photographs
- Pupils can use mathematical information from the internet e.g. social issues expressed in mathematical terms such as percentages.

Managing group work and discussion

- Pupils move carefully from paired discussion to group discussion – the language necessary for whole-class discussion work may be a barrier for pupils who find it difficult to express themselves in public. Paired and small group discussions provide opportunities for all to take part.

Teachers' communication

- Recognise that the language of mathematics may be challenging for many pupils. For example:

" the specific mathematical use of everyday words such as 'tables', 'translate', 'right angle', terms specific to mathematics – eg 'digit', 'subtract', " terms such as 'height', 'distance' or 'mass' can create barriers for some pupils, because of their abstract nature.

- Plan to teach new vocabulary explicitly. Make sure that pre-tutoring on mathematical vocabulary is available for pupils who need it.