Oakfield
HIGH SCHOOL & COLLEGE

Theories of Action

Maths AE

Questioning

When teachers ask probing questions, scaffolding them to build up more detailed understanding, directing and targeting them around the class and giving them time to think mathematically and develop their understanding and reasoning (removing any misconceptions).

Then learners have increased level of understanding, becomes more secure in their knowledge and progress is accelerated.

Coherence and Scaffolding

When teachers 'chunk' (in to small steps) learning around one big idea or narrative, steadily increasing the level of challenge.

Then all learners are able to make progress with increasing levels of self confidence.

Sequencing

When teachers quickly engage students with starter and spaced learning activities recalling learning from previous sessions as a feedback mechanism before developing the next sequence of learning.

Then learners cognitive load is reduced, retrieval strategies are developed, learners and teachers know where learning go next.

Assessment and feedback

When teachers use timely personal and individual feedback and praise.

Then learners feel more secure about their learning are able to challenge themselves to improve their mathematical thinking and fluency and feel affirmed and positive about their progress.

Vocabulary

When teachers clearly and consistently develop vocabulary and terminology and precise language, explaining clearly, reinforcing definition and understanding.

Then learners have a clear understanding of concept, develop skills more rapidly, communicate in a more precise manner (even if non-verbally), preparing them for their next steps in their learning and are more able to apply this understanding to a wide range of contexts.

Relationships and high expectation

When the school and all the adults consistently build authentic relationships where each learners context is known and all adults model calm and respectful trusting behaviour.

Then learners mirror that behaviour feel known and respected and listen to and then the gained learning time enables students to make faster progress and deeper understanding.

Collaborative Work

When teachers use collaboration or group activities as a part of problem solving or an enquiry.

Then learners increasingly trust one another develop a wider range of ideas and deeper mathematical thinking and motivation is increased.