

# **Two Rivers High School**

Discoverers Strand

## **Maths Curriculum**

2022-2023



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## **Discoverer's Maths Curriculum 2022-2023**






### **Statement of intent**

Maths across the Discoverers Tier is explorative, hands on and exciting for students. Purposeful exposure to Maths fundamentals allows students to develop curiosity and problem-solving skills which they can apply throughout their life. Students in the Discoverers tier will access a varied, progressive curriculum that will develop all numeracy aspects. Students will discover how to count confidently, develop a deep understanding of numbers, and acquire a secure base of knowledge and vocabulary from which mastery of mathematics is built. The curriculum includes rich opportunities for students to develop their spatial reasoning skills across all areas of mathematics including shape, space and measures. A safe learning space will develop positive attitudes and interests in mathematics, which will allow students to look for patterns and relationships, spot connections, 'have a go', talk to adults and peers about what they notice and not be afraid to make mistakes. Maths is embedded across the whole school curriculum and staff look for learning opportunities to reinforce skills learnt by all students.

### **EQUALS Curriculum across the Discoverers tiers**

## **Discoverer's Maths Curriculum 2022-2023**

**Table 1.** The relationship between curricula in EQUALS multi-tiered curriculum approach taken from EQUALS informal Curriculum 2020.

<b>Equals Pre-Formal Curriculum</b>	<b>Equals Informal Curriculum</b>	<b>Equals Semi-Formal Curriculum</b>	<b>Equals Formal Curriculum</b>	<b>National Curriculum</b>
<b>PMLD</b>	<b>Complex SLD, SLD/ASC</b>	<b>SLD, SLD/ASC</b>	<b>GLD<sup>1</sup>, GLD/ASC</b>	
Working consistently and over time within P1 to P3	Working consistently and over time within P4-P5 ish	Working consistently and over time within P4 to the early reaches of the NC	Working consistently and over time significantly below age related expectations	Working within typical or near typical age related expectations
				

## Discoverer's Maths Curriculum 2022-2023

**Table 2.** The relationship of EQUALS Curriculum class, year groups and expected branches.

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Firebird	Pre-formal/Informal Branches 1-6							
Arctic				Moving on 14+ Branch 10 and beyond				
Galaxy	Semi-formal Branches 7-10							
Everest	Semi-formal Branch 7-10							
Nova					Moving on 14+ Branch 10 and beyond			

**Table 3.** Expected pathways for Discoverer's tier.

## Discoverer's Maths Curriculum 2022-2023

	Year 7	Year 8	Year 9	Year 10	Year 11	Year 12	Year 13	Year 14
Pathway 1	<u>Firebird</u> Pre-formal/Informal Branch 1-6			<u>Arctic</u> Moving on 14+ Branch 10 and beyond				
Pathway 2	<u>Galaxy</u> Semi-Formal Branches 7-10		<u>Everest</u> Semi-Formal Branches 7-10		<u>Nova</u> Moving on 14+ Branches 10 and beyond			
Pathway 3	<u>Everest</u> Semi-Formal Branches 7-10				<u>Nova</u> Moving on 14+ Branches 10 and beyond			

The EQUALS Curriculum is embedded across the Discoverers tiers; forming a varied and diverse curriculum relevant to each pathway. Aspects from each pathway have been used to develop the aims and objectives of Maths along with the national curriculum EYFS to Key stage 3.

## Implementation

## **Discoverer's Maths Curriculum 2022-2023**

The Discoverer students will access between 2 and 4 Maths lessons depending on their pathway. Staff will follow a scheme of work that is progressive and covers all aspects of numeracy. Outcomes have been created for all curriculums, with the idea that students will progress through each pathway building upon prior skills.

Staff will use a variety of teaching styles relevant for each learner to ensure students are excited and interested by the activities they are accessing. Activities will range from explorative tough tray activities that are student-led; to students applying skills in real life situations, independently.

The Discoverers tier will mirror the topics studied by the Explorer groups (Yr 7&8), this is to ensure the students are following progressive themes in a logical order, similar to those of their age-related peers. However, Arctic and Nova will follow their own themes due to the prescriptive nature of the Moving On 14+ Numeracy Curriculum. Firebird will explore one aspect per half term due to the need for repetition. Students in Galaxy and Everest will follow the same topics as the Explorer tier, with adapted teaching and learning opportunities relevant to their learning style.

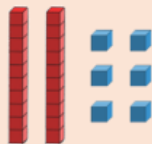


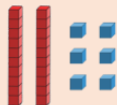

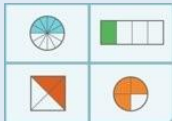



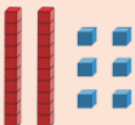

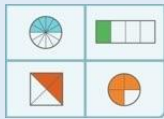


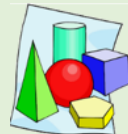
Staff will monitor progress against the outcomes and utilise the engagement model and engagement scale for relevant classes.

**Table 4.** Weekly breakdown of Maths lessons for each class.

<b><u>Firebird</u></b>	<b><u>Galaxy</u></b>	<b><u>Everest</u></b>	<b><u>Arctic</u></b>	<b><u>Nova</u></b>
• Maths lesson x 2	• Maths lesson x 4	• Maths lesson x 4	• Maths x 2	Maths x 2

**Table 5.** Year 1 Overview for Discoverers tier.

# Discoverer's Maths Curriculum 2022-2023

<u>Group</u>	<u>Autumn 1</u> <u>7 weeks</u>	<u>Autumn 2</u> <u>7 weeks</u>	<u>Spring 1</u> <u>7 weeks</u>	<u>Spring 2</u> <u>5 weeks</u>	<u>Summer 1</u> <u>6 weeks</u>	<u>Summer 2</u> <u>7 weeks</u>
<u>Firebird</u>	<u>Number</u> 		<u>Shape</u> 		<u>Measure</u> 	
<b>Galaxy</b>	Properties of number 	The four operations 	Ratio 	Money 	Measures (length and temperature) 	Geometry 
<b>Everest</b>	Properties of number 	The four operations 	Ratio 	Money 	Measures (length and temperature) 	Geometry 
<u>Arctic</u>	Measurement and volume		Shopping		Maps, Travel and Timetables	



## Discoverer's Maths Curriculum 2022-2023

			
<b><u>Nova</u></b>	Measurement and volume 	Shopping 	Maps, Travel and Timetables 

## Aims

## **Discoverer's Maths Curriculum 2022-2023**

The aims of the Discoverers Curriculum are varied and range from passive experiences to mastering key aspects of the Maths national curriculum. Each section that follows will include specific aims for each pathway.

### **Pre-formal Curriculum**

## **Discoverer's Maths Curriculum 2022-2023**

### **Aims**

The Pre-formal Curriculum is created to provide a variety of explorative and creative opportunities for students to investigate Numeracy skills both consciously and through facilitated play.

#### **The aims of the Pre-formal Curriculum are:**

- To notice and respond to new stimuli,
- to notice and respond to familiar stimuli,
- to explore a variety of environments,
- to explore cause and effect,
- to reach out and touch stimuli,
- to show a preference of stimuli,
- to repeat an action if successful,
- to adapt an action if unsuccessful.

### **Informal Curriculum**

### **Aims**

## **Discoverer's Maths Curriculum 2022-2023**

The Informal Curriculum is created to provide a variety of explorative and creative opportunities for students to investigate Numeracy skills. Students will explore with intention, showing awareness of actions and follow instructions to expand their knowledge.

### **The aims of the Pre-formal Curriculum are:**

- To show an interest in number rhymes and songs,
- begins to show an understanding in structure and routine, anticipates now and next,
- to show some understanding of number,
- to begin to show an understand of order,
- explores purposeful actions- filling and emptying and posting,
- matches identical objects,
- sort using own preferences – colour, size, shape,
- selects tools for purpose in play situations,
- begins to show an understanding of the concepts of size, shape, colour, same, different.

### **Pre-formal and Informal Implementation**

## **Discoverer's Maths Curriculum 2022-2023**

Creative and explorative tasks will create opportunities for student-led learning. Students will have resources and tools to measure, build, match and sort items. Staff will reinforce learning that takes place through use of maths terminology and providing progressive learning opportunities.

Examples of student-led learning opportunities include-

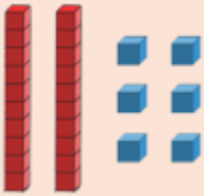


- Construction- using Lego, building blocks
- Measure- water, sand play using measurement and filling tools
- Numicon- Use of Numicon shapes to form pictures, match 1:1, build images
- Sort- matching socks, knives and forks, images, sorting by colour, matching shapes 1:1
- Action reaction- Contingency toys, marble run, software and use of technology
- What's in the box activities
- Tough Tray activities – use of numbers and items to group by how many
- Use of natural resources- sort by properties

Students in Firebird will access two Numeracy focussed lessons per week, these will include a variety of purposeful explorative activities that will support their functional skills and problem- solving abilities. They will also access a 1:1 TEAACH style activity which will be mastered before an additional activity is added. This will support students to become more independent and apply knowledge they have acquired. Staff will follow the prescribed outcomes for each curriculum and observe the student's engagement which will be measured against the engagement model. Progress will be measured through successfully attempting each outcome and at which level of engagement they have demonstrated these skills.

### Firebird Year 1 Maths Overview

<b><u>Autumn 1</u></b> <b><u>7 weeks</u></b>	<b><u>Autumn 2</u></b> <b><u>7 weeks</u></b>	<b><u>Spring 1</u></b> <b><u>7 weeks</u></b>	<b><u>Spring 2</u></b> <b><u>5 weeks</u></b>	<b><u>Summer 1</u></b> <b><u>6 weeks</u></b>	<b><u>Summer 2</u></b> <b><u>7 weeks</u></b>
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## Discoverer's Maths Curriculum 2022-2023

<b>Number</b> 	<b>Shape</b> 	<b>Measure</b> 
<b>The Big Picture:</b> 1. I can explore numbers 2. I can identify some numbers 3. I can match numbers to amounts 4. I can count items 5. I can use numicon	<b>The Big Picture:</b> 1. I can explore 2D shapes 2. I can match shapes 3. I can identify shapes 4. I can sort shapes by properties 5. I can create a picture using shapes	<b>The Big Picture:</b> 1. I can explore volume, measure and order 2. I can fill and empty containers 3. I can explore size 4. I can sort items, big and small 5. I can create models by size
<b>Suggested approaches:</b> Tough tray activities Number songs Puzzles Games Exploration of environment and items	<b>Suggested approaches:</b> Tough tray activities Shape songs Puzzles Games Exploration of environment and items	<b>Suggested approaches:</b> Tough tray activities Water and sand play Songs Puzzles Games Exploration of environment and items
<b>Cross Curricular links</b>	<b>Cross Curricular links</b> Art	<b>Cross Curricular links</b> Science

### The Engagement Model <sup>1</sup>

Progress will be measured using the Engagement Model, this will be used through teacher observation, students work and Q&A. Staff will use the outcomes from the Pre-Formal and Informal Curriculum to create learning intentions relevant to the theme. Due to

## **Discoverer's Maths Curriculum 2022-2023**

the nature of the learners, repetition will be needed for retention; however learners can demonstrate progress through their levels of engagement over time.

### **Main principles**

- The engagement model is an assessment tool that helps schools meet their duties in supporting pupils who are working below the level of the national curriculum and who are not engaged in subject-specific study.
- The model has 5 areas: exploration, realisation, anticipation, persistence and initiation.
- Engagement identifies and celebrates all pupils' progress, including linear and lateral progress, the consolidation and maintenance of knowledge, skills and concepts and the prevention or slowing of a decline in pupils' performance, whilst recognising that a minority of pupils may have a regressive condition.

### **The areas of engagement**

The engagement model has 5 areas of engagement, these are:

- Exploration
- Realisation
- Anticipation
- Persistence
- Initiation

Each area can provide a focus on how well pupils are achieving a specific outcome or individual development target as set out in their EHC plans or high-needs funding agreements.

<sup>1</sup> *The engagement model, Guidance for maintained schools, academies (including free schools) and local authorities. July 2020*

The 5 areas are not hierarchical, so there is no expectation that pupils need to demonstrate progress in all 5 areas. Instead, each of the areas represent what is necessary for pupils to fully engage in their development and reach their full potential. The areas also provide the scaffolding to enable pupils to become independent in developing a new skill or concept.

## **Discoverer's Maths Curriculum 2022-2023**

### **Exploration**

This shows whether a pupil can build on their initial reaction to a new stimulus or activity; for example, whether they display more than an involuntary or startled reaction to the activity. Additionally, the pupil may be interested in and curious about the stimulus or activity; for example, they may notice it or reach out to it. Exploration becomes more established when the pupil is still responsive to the same stimulus or activity when it is presented in different contexts or environments; for example, a different time of day, a different place or with different people. Exploration is important in identifying which stimuli or activities interest the pupil and motivate them to pay attention and investigate them further, so that they can develop new knowledge and skills.

### **Realisation**

This shows how the pupil interacts with a new stimulus or activity or discovers a new aspect of a familiar stimulus or activity. They will display behaviours that show they want more control of the stimulus or activity, for example by stopping it or trying to make changes to it. The pupil will often show what familiar adults consider to be 'surprise', 'excitement', 'delight', 'amazement' or 'fear'. Realisation becomes more established when the pupil uses the newly developed skills or knowledge in new ways and in different contexts or environments. This is important as it can keep the pupil excited in their education and prevents an activity from becoming routine.

### **Anticipation**

This shows how much the pupil predicts, expects or associates a stimulus or activity with an event. They may anticipate that a familiar activity is about to start or finish by interpreting cues or prompts such as auditory (what they hear), tactile (what they feel) and visual (what they see). Anticipation becomes more established when the pupil shows awareness that a familiar activity is about to start or finish, even when cues and prompts are reduced. Anticipation is important in measuring the pupil's understanding of cause and effect; for example, if they do this, then something will happen. This prepares the brain and helps with the pupil's memory and sequencing.

<sup>1</sup> *The engagement model, Guidance for maintained schools, academies (including free schools) and local authorities. July 2020*

### **Persistence**



## **Discoverer's Maths Curriculum 2022-2023**

This shows whether the pupil can sustain their attention in a stimulus or activity for long enough that they can actively try to find out more and interact with it. Persistence becomes more established when the pupil shows a determined effort to interact with the stimulus or activity. They will do this by showing intentional changes such as changes in their gaze, posture and hand movement.

Persistence is important so that the pupil maintains an activity long enough to develop, reinforce, and apply their skills or knowledge so they can achieve their desired outcome.

### **Initiation**

This shows how much, and the different ways, a pupil investigates a stimulus or activity in order to bring about a desired outcome. The pupil will act spontaneously and independently during a familiar activity without waiting for direction. Initiation becomes more established when the pupil shows they understand how to create an impact on their environment in order to achieve a desired outcome. Initiation is important to establish how well the pupil is developing independence, which is required for more advanced progression.

<sup>1</sup> *The engagement model, Guidance for maintained schools, academies (including free schools) and local authorities. July 2020*

### **Pre-formal and Informal Impact**

## **Discoverer's Maths Curriculum 2022-2023**

The Pre-formal and informal curriculum will assist students to explore and learn with intent. Students will have gained confidence to attempt new activities and see that their actions cause effects. Learners will have gained some fundamental skills, including recognising numbers, shapes and colours. Students will have been exposed to a range of maths vocabulary and may be able to respond to this and use in themselves. Routines and concepts of now and next may be embedded at this point, allowing students to comprehend the structure of their day and routine.

Learners who have progressed through these curriculums will have the basic pre-requisites to access the Semi-Formal Curriculum.

### **Semi-formal Curriculum**

## **Discoverer's Maths Curriculum 2022-2023**

The Semi-formal Curriculum is the next stage for Pre-formal/informal learners to progress to. Outcomes are skill specific and relate to half termly topics. Students at this level of learning have a basic understanding of Maths concepts and are now beginning to expand and apply this knowledge to more complex ideas.

### **The aims of the Semi-formal curriculum include;**

- To show an understanding of number and concepts of order, amount, more, less
- to identify and sort 2d and 3d shape,
- to understand and apply positional language,
- to begin to explore the 4 operations,
- to show an understanding of measure in different forms,
- to apply number knowledge to money and time,
- to apply maths knowledge to solve simple problems,
- to begin to understand fractions,
- to use mathematical language correctly.

### **Semi-Formal Implementation**

## **Discoverer's Maths Curriculum 2022-2023**

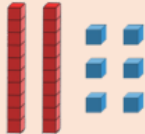

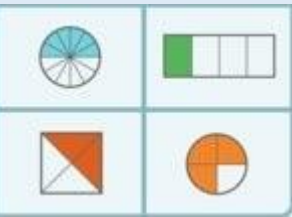



Learning will take place through practical activities based on a topic each half term. Students will begin with number and explore all aspects before applying these skills in other topics. Students will access four Maths lessons per week and an intervention lesson; this structure allows for repetition and retention of key skills.

Activities will include practical aspects to embed knowledge and plenty of opportunity to practice, examples of activities include;

- Number- making groups of action figures, using Numicon shapes to label amounts in groups
- Shape- building structures with 2D shapes, what's in the box with 3D shapes
- Money- Creating a class shop, using tills, exchanging money for items.
- Time- use of large clocks, songs and time games
- Fractions- Using images, food items, puzzles, to half and quarter.

Progress will be measured through engagement and support needed when attempting each outcome. Teachers will assess how the students have engaged with each activity and attempt to support less each time until students can apply the skills independently, where possible. This will be tracked using the Engagement Scale (page 23).

## Discoverer's Maths Curriculum 2022-2023

<u>Autumn 1</u> <u>7 weeks</u>	<u>Autumn 2</u> <u>7 weeks</u>	<u>Spring 1</u> <u>7 weeks</u>	<u>Spring 2</u> <u>5 weeks</u>	<u>Summer 1</u> <u>6 weeks</u>	<u>Summer 2</u> <u>7 weeks</u>
Properties of number 	The four operations 	Ratio 	Money 	Measures (Volume and size) 	Geometry 
<b>Big picture:</b> 1. I can recite numbers in order 2. I can order numbers 3. I can match numerals to amounts 4. I can count out objects when requested 5. I can use Numicon accurately	<b>Big picture:</b> 1. I can add two numbers together 2. I can take a number from another 3. I can count in multiples 4. I can use +, -, = correctly 5. I can solve simple problems	<b>Big picture:</b> 1. I can explore aspects of fractions of objects 2. I can identify whole items 3. I can select $\frac{1}{2}$ of an item 4. I can $\frac{1}{2}$ a group of items 5. I can count to check I have $\frac{1}{2}$	<b>Big picture:</b> 1. I can match identical coins 2. I can sort coins by amount 3. I can order coins 4. I can select coins when requested 5. I can begin to exchange coins for items	<b>Big picture:</b> 1. I can use positional language 2. I can recognise full, empty 3. I can identify heavy and light 4. I can compare two volumes 5. I can use the correct measurement tools	<b>Big picture:</b> 1. I can copy simple patterns 2. I can make arrangements with shapes 3. I can identify 2D shapes by name 4. I can sort 2D shapes by properties 5. I can explore 3D shapes
<b>Suggested approaches:</b> Numicon Education City Maths games Maths Bot	<b>Suggested approaches:</b> Education City Maths games Maths Bot	<b>Suggested approaches:</b> Education City Maths games Maths Bot Visual resources Food items Playdough	<b>Suggested approaches:</b> Education City Maths games Maths Bot Visual resources Class shop Use of school shop	<b>Suggested approaches:</b> Education City Maths games Maths Bot Visual resources Tough tray- water sand	<b>Suggested approaches:</b> Education City Maths games Maths Bot Visual resources
<b>Cross Curricular links</b>	<b>Cross Curricular links</b>	<b>Cross Curricular links</b>	<b>Cross Curricular links</b>	<b>Cross Curricular links</b>	<b>Cross Curricular links</b>

**Semi-Formal Impact**

## **Discoverer's Maths Curriculum 2022-2023**

Once students have completed the Semi-Formal curriculum they will be confident with their subject specific skills, which may include, counting, identifying shapes and sorting by properties, use of time and money, use of the 4 operations and use of fractions. Students will have a good understanding of Maths concepts, language and skills.

These fundamental skills will support the students in everyday life by telling the time, using money in the community, identifying numbers in a phone number and recognising signs in community. Students will be prepared to build upon these skills further by accessing the Moving On 14+ Curriculum.

## **Moving on 14+ Curriculum**

Moving On 14+ is a flexible, all-inclusive curriculum with national accreditation for students aged 14+ years who experience difficulties in learning.

## **Discoverer's Maths Curriculum 2022-2023**

The Moving On Essential Skills covers three courses of study Literacy, Numeracy and ICT. The courses are broken down into practical subject areas which relate to real life, everyday situations thus enabling students to access their community as fully as possible and gain a greater degree of independence.

### **Aims of Moving On 14+ Curriculum:**

To provide learning experiences which enable students to:

- Develop autonomy and broaden choices and opportunities in a range of contexts, for example, citizenship and community, domestic and everyday life, the workplace, leisure, education and training, travel and using ICT in social roles.
- Develop specific skills and capabilities in contexts for communication, speaking and listening, reading and writing, engaging with the world.
- Develop specific skills and capabilities in contexts for number, measures, shape and space, sequencing and sorting, and money.
- Develop ICT skills and capabilities in contexts for communication, providing personal information, developing community participation skills and engaging with the world: objects, technology, people.
- Develop skills to make and communicate informed choices.
- Develop as high a degree of personal independence and safety as possible.

**The Programme of study for Moving on Numeracy includes:**



## **Discoverer's Maths Curriculum 2022-2023**

<b>Numeracy</b>				
Maths in Everyday Life	Maths for Life	Maths for the Community	Maths for Design	Maths for the Future
Measurement and Volume  Weighing and Cooking  Time	Shopping  Domestic Appliances  Telephone and Communication	Maps, Travel and Timetables  Using Leisure Facilities  Money	Repeating Patterns  Shape, Colour and Space  Design	Enterprise  Work  Financial Responsibility

## **Moving On 14+ Implementation**




## **Discoverer's Maths Curriculum 2022-2023**

Three topic areas will be selected each year to allow students to learn, and apply these skills each term in all relevant aspects of their curriculum. Students will access two Maths lessons per week where they will learn key skills and concepts and practice them in real life situations in order to embed these skills for life.

Students will be building upon previous knowledge of number, shape and measure in order to apply these fundamental skills.

Progress will be measured using the Engagement scale, page 26. Teachers will provide differentiated learning opportunities from the prescribed outcomes and students will be supported in learning these skills. Staff will measure student engagement through observations to demonstrate how much progress has been made in each area.

## Discoverer's Maths Curriculum 2022-2023

<b><u>Autumn 1 &amp; 2 -14 weeks</u></b> <b>Maths in Everyday Life</b>	<b><u>Spring 1&amp; 2- 12 weeks</u></b> <b>Maths for Life</b>	<b><u>Summer 1 &amp; 2 – 13 weeks</u></b> <b>Maths for the Community</b>
Measurement and volume 	Shopping 	Maps, Travel and Timetables 
<b><u>Big Picture</u></b> 1. I can measure items using a variety of units 2. I can use the correct unit if measurement to complete a recipe 3. I record the results of different measurements 4. I can create an item using measurements 5. I can request the correct size when given a choice	<b><u>Big Picture</u></b> 1. I can create a shopping list 2. I can collect the correct items from the shopping list 3. I can pay for items using different machines 4. I can shop in a variety of establishments 5. I can identify if I have enough money	<b><u>Big Picture</u></b> 1. I can explore different maps and timetables 2. I can use a timetable 3. I can create a map of a familiar place 4. I can plan a route 5. I can follow a map or route
<b><u>Suggested approaches:</u></b> Tough tray activities- water, sand Education City Cooking Sewing/arts and crafts	<b><u>Suggested approaches:</u></b> Shopping in the local community Use of the school shop Money activities Shop set up in classroom	<b><u>Suggested approaches:</u></b> Orienteering Independent travel
<b><u>Cross Curricular links</u></b> Cooking Art	<b><u>Cross Curricular links</u></b> Citizenship Independent travel	<b><u>Cross Curricular links</u></b> Outdoor education Independent travel

### The Engagement Scale

## **Discoverer's Maths Curriculum 2022-2023**

The Moving On 14+ scheme of work is designed to provide 'units of work' that indicate continuity and progression over time. Each subject area has a scale of 10 levels of achievement. These have been provided to allow each level of attainment to be accredited.

<b>Ten developmental stages</b>	<b>Stage characteristics</b>	<b>Stage Descriptor</b>
<b>1. Encounter</b>	Characterised by presence and reflex responses	Learners are present during an activity or experience. Any participation is fully prompted by facilitators. Learners may remain passive or they may resist. For some learners, being able to tolerate a shared activity may, in itself, be significant. Learners may show simple reflex responses to encounters but it will be difficult to tell if any learning has occurred.
<b>2. Early Awareness</b>	Characterised by presence and reflex responses	Learners are present during an activity or experience. Any participation is fully prompted by facilitators. Learners may remain passive or they may resist. For some learners, being able to tolerate a shared activity may, in itself, be significant. Learners may show simple reflex responses to encounters but it will be difficult to tell if any learning has occurred.
<b>3. Interest</b>	Characterised by presence and reflex responses	Learners are present during an activity or experience. Any participation is fully prompted by facilitators. Learners may remain passive or they may resist. For some learners, being able to tolerate a shared activity may, in itself, be significant. Learners may show simple reflex responses to encounters but it will be difficult to tell if any learning has occurred.
<b>4. Supported Participation</b>	Characterised by cooperation and engagement	Learners accept supported participation. They cooperate with shared exploration and engage in activities, although their responses may be supported by staff or other learners.
<b>5. Active Involvement</b>	Characterised by cooperation and engagement	Learners accept supported participation. They cooperate with shared exploration and engage in activities, although their responses may be supported by staff or other learners.
<b>6. Development</b>	Characterised by remembered responses and intentional	Learners begin to develop and refine actions and reactions, often by trial and improvement. They remember responses over short periods of time. Learners begin to communicate intentionally.

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	communication	They seek attention through eye contact, gesture or action. They request events or activities.
<b>7. Exploration</b>	Characterised by concentration, recall and observation	Learners begin to explore materials in increasingly complex ways. They concentrate for longer periods and participate in shared activities with less support. Learners remember responses over more extended periods and participate in shared activities with less support. Learners remember responses over more extended periods. They observe the results of their actions with interest.
<b>8. Initiation</b>	Characterised by established responses and conventional communication	Learners begin to initiate activities. They may respond to options and choices with actions or gestures. They greet known people and use emerging conventional communication. Learners maintain established responses over increasing periods of time and anticipate more and more known events. They actively explore objects and events for more extended periods
<b>9. Consolidation</b>	Characterised by the formation of skills, knowledge, concepts and understandings	Learners gain, strengthen or make general use of skills, knowledge, concepts or understandings that relate to their experience of the world around them. They are aware of cause and effect and know that certain actions produce predictable results. Learners apply potential solutions systematically to problems. They use single words, gestures, signs or symbols to identify or request familiar objects or to communicate
<b>10. Application</b>	Characterised by the application of skills, knowledge, concepts and understandings	Learners apply their skills, knowledge and understanding to a range of familiar experiences. They carry out simple tasks in familiar settings and are able to engage in familiar, straightforward routines, anticipating some of the stages. They are aware of cause and effect and are able to anticipate the effects of a range of familiar actions. They can review activities, identifying what they enjoy and what they don't. They are able to access appropriate sources of help when carrying out routine activities. Learners can apply knowledge or skills used in one familiar activity to another familiar activity, using this ability to solve simple problems. Learners can speak or otherwise communicate in simple exchanges and discussions, make requests, ask questions and make statements. They can listen and respond to requests and follow single-step instructions.

## **Discoverer's Maths Curriculum 2022-2023**

Teachers will select a learning intention for the lesson from the list of outcomes for the curriculum, staff will observe students and assess through question and answer, support needed and production of work. Students may progress through the engagement scale as the year moves on, or they may fluctuate around the scale depending on the task and support needed dependent on their needs.

**Moving on 14+ Impact**

## **Discoverer's Maths Curriculum 2022-2023**

Students who complete the five year Moving On 14+ curriculum will have gained a breadth of experience and knowledge to support them for leaving high school. They will be prepared for continuing their learning journey in further education or prepared to live as independently as possible in society.

Students will have experienced how to handle money, shop, and be financially responsible; how to cook, weigh and measure items and use domestic appliances; the concept of time, time management and using timetables and finally aspects of work.

All of these aspects, along with the other areas of their robust curriculum will support the young person to thrive in their next steps whichever pathway they choose to take.