Rolling Programme of Outcomes and Themes

Numeracy- KS3

	Autumn		Spring		Summer	
	Theme	Outcomes	Theme	Outcomes	Theme	Outcomes
Year	Experiential: P1 - 4 Number P1 (blue) P2 (green) P3(orange) P4(purple)	COUNTING PROPERTIES OF NUMBERS AND NUMBER SEQUENCES Begin to show enjoyment of light, sound, or touch sequences. Allow an adult to place an object in hands to experience the feel, and have one object changed for the next. Take an object to face to explore when the object is placed in hands. Look around for the next sound when the rhythmic beat on a drum stops. Track items that are being counted. Watch fingers, and allow an adult to count them using number names. Reach for toys as they are counted onto the table. Track the path of an object and anticipates where it will end, extend to include repetition and sequence, and experience of the associated language. Anticipate a count by vocalising or gesturing to suggest a continuation when an adult stops counting. Relate to items in increasingly systematic ways, e.g. collect items together or enjoys co-actively putting items into containers, encouraging one at a time. Participate as members of a group in games of change and chance by exchanging and stacking items. Show an interest in number activities and counting. PLACE VALUE AND ORDERING Experience touching and looking at single objects and hear them described as one. Encounter changing or different sizes of groups of things and hears adults comment on different groups. Shift attention between groups of objects;	Experiential: Shape, Space & Measure P1 (blue) P2 (green) P3(orange) P4(purple)	MEASURES Experience stretching and curling, either just using hands or feet or perhaps a whole body experience. Experience the weight and size of different objects placed in hands. Feel a collection of different size spheres from table tennis to physiotherapy balls. Make small movements to accept small items, hold arms wide to receive very large toy, hear adult language associated with size. Feel heavy and light items on the lap, and hears adults comment on 'more', 'heavier', and 'bigger'. Respond to different language and intonation used by adult. Use grasp to develop awareness of texture, length, weight of familiar objects. Use hands to enclose an object to experience its global shape and contours. Point to items that have been taken away. Indicate through sound, sign or gesture that an items needs to be moved closer. Judge sizes of items being placed in containers, nesting boxes or buckets by adults; indicate whether or not they will fit. Use sound, sign or gesture to indicate the size/shape of cup to have a drink in. Push obstructions out of the way to obtain object. SHAPE AND SPACE React to or show pleasure at feeling a smooth round shape. Tolerate the introduction of forms or items into the hand. Focus on interesting or sharply defined parts of stimuli, e.g. areas where high contrast creates line effect.	Experiential: Data Handling	 Recognise sounds and smells in familiar situations. Associate an object with a real event, person or item. Use symbols to represent events, people and items. With support identify objects that fit a given criteria e.g. Is this a dog? Pupil may respond using Yes or No. With help match objects to identical objects. With support attend to teacher pointing to a sequence of pictures/numbers and follow the sequence e.g. follows simple story board for a well-known story. May point to the set that has more when shown two different sets. May respond to words such as sort, match, and count.

shows interest when adults change the size of groups.

Shares a focus with an adult on finger manipulation, or touch sequences, showing some elements of anticipation.

Watch and feel adult mark-making, sequential movements or strokes, associated with keeping tally on events or objects.

Participate in collecting things together with an adult and experience adults' use of number names.

Experience use of number names for small numbers, e.g. associating the pointing of a finger to a single object or tracking as individual objects are pointed at or sequentially illuminated by a torch. Receive tokens offered by adults or peers intended as tallies marking events such as scoring in a game.

Appreciate that adult finger-counting is denoting sequence of quantity.

Accept wooden or plastic numerals as tokens and be encouraged to explore their shapes.

Recognise differences in groups of objects and chooses the larger group.

Place items in containers and empty them, anticipating the sequence with associated language used by adult or peer.

Begin to anticipate the ending or key

Begin to anticipate the ending or key elements of rhymes, songs and number games.

ADDITION AND SUBTRACTION

Become aware of adults entering and leaving their immediate vicinity and appreciating presence of one and more individuals.

Extend glances between their own hands, or between objects within close vision, or begins to feel alternative items.

Experience adult's use of language and intonation that refers to 'another' or 'more'. Extend awareness, watching sequences of items being placed or stacked, or being put into or taken out of bags, boxes, cupboards.

Manipulate and rotate objects, such as a cardboard tube, a triangular prism and an orange in hands.

Use grasp to develop awareness of texture, length, weight of familiar objects.
Use hands to enclose an object to experience its global shape and contours.
Experience the language of shape during exploration.

Explore the consequential properties of shape, e.g. balls roll, boxes stand or slide, triangles topple.

Use hand movements to trace around the edge of an object.

Begin to search for objects that have gone out of sight, hearing or touch, demonstrating the beginning of object permanence.

POSITION AND DIRECTION

Develop a trust and be willing to be moved or turned to experience different stimuli. Respond to familiar items being moved within their immediate vicinity. Show some awareness or desire to find source of sound that comes from side or behind.

Shuffle or wriggle, moving head and/or body to gain different view.

Turn head or body to seek new sound, show awareness of sounds behind. With assistance attempt to place a small box on a larger one.

Maintain interest in looking as tower is built, respond to the bricks being knocked over.

Follow the placement of objects in a line, and then reach out for the last object.

With assistance, put a smaller object inside a larger one.

Participate in the arrangement of objects in lines, under pots, on top of things, and remember where they are.

Recognise that their coat hangs on a hook.
Use emerging language skills to direct the

Hear associated language.	hiding of objects.		
Show anticipation and interest in watching	Begin to search for objects that have gone		
collections being made.	out of sight, hearing or touch,		
Cooperate with adult or peers giving and	demonstrating the beginning of object		
taking, experience language associated with	permanence.		
gain and loss.	permanence.		
Cooperate in building and reducing towers,	Demonstrate interest in position and the		
or filling and emptying containers such as	relationship between objects.		
boxes of toys or bun trays.			
Offer and accept items, express anticipation			
and awareness of opportunity to obtain			
items, regret at losing.			
Work with partner to extend patterns by			
adding 'another one'.			
Point at items in sequence along a number			
line, coordinate pointing with associated			
words sounds including intonation of			
increase and decrease.			
Initiate exploration and works			
independently collecting objects, expects			
things to be where they put them a few			
moments before.			
Make a tower taller or shorted by adding or			
removing objects.			
Follow sequence of pictures or numbers as			
indicated by the teacher during rhymes and			
songs.			
REASONING ABOUT NUMBERS			
Experience repeated contrasting sounds, e.g.			
high, low, high, low long, short, long, short.			
Attempt to locate and focus on source of			
interesting sound patterns from voices,			
music, equipment, toys, or materials.			
Accept and engage in co-active exploration,			
manipulating items with adult support.			
Switch attention between objects on a table			
that are highlighted in turn using a torch			
beam, or are tapped to make distinct			
sounds.			
Begin to show desire to follow modelled			
actions and imitate adult responses in			
movement and sound patterns, e.g. long and			
short beats on a drum.			
Beats on a drum or cymbal in response to a			
familiar piece of music being played.			
Create a pattern which they then observe			
create a pattern which they then observe		L	

Commenced	being continued by others. Complete a familiar sequence that has something missing or shows awareness that part of the sequence is incorrect. Show awareness of changes in shape, position or quantity. Use a finger to indicate 'one'. PROBLEMS INVOLVING 'REAL LIFE', MONEY OR MEASURES Show awareness as objects are placed against the hand, or face, in a series of touch events, accompanied by adult sound sequence. Show some anticipation of touch as items are touched on face or moved down their arm towards the hand, where they may grasp as items enter the palm. Retain a hold on objects for longer and takes objects to own face for examination. Place hands in sink as a jug of water is being emptied. Respond through facial expression or movement to '1, 2, 3, Go!' Hold coins to drop into a tin being passed around the group. Indicate choice from two objects. Consistently use a recognised response to indicate preferred choice of mathematical activities. Anticipate, follow and join in mathematical activities when given a contextual clue.				
Supported: P5 – P7 Number At the end of year 7 students are assessed to see if they move up	 Indicate 'one' or 'two' Show awareness of contrasting quantities Understand one-to-one correspondence in a range of contexts Join in rote counting up to five Count reliably to three, make sets of up to three objects Understand the concept of 'more'. Join in with number rhymes, songs, stories and games Rote count to ten Count at least five objects reliably 	Supported: Shape Space & Measure- Length & Mass	 Have an understanding of object permanence Find big and small objects on request Compare the size of one object with that of another where there is a marked difference and perhaps where there is not great difference Explore the position of objects Manipulate three-dimensional shapes. Show understanding of words, signs and symbols that describe positions Respond to forwards and backwards. 	Supported: Shape Space & Measure- Time	 Understand day/night. Relate familiar events to times of the day, days of the week and seasons of the year. Identify significant or desirable activities on specific days of the week Read an individual visual timetable. Understand the order of the day and simple timetables, for example, to plan TV viewing or radio listening, to find the starting

Independent: P7 - NC Number	 Recognise numerals from 1 to 5 and understand that each represents a constant number or amount Understand 'less' Respond to 'add one' when working with a number of objects To know smallest/biggest Recognise & order numbers to 10/20 Write numbers to 10 Know the symbols for + & = Understand simple number sentences of addition Number bonds to 10 Count to 100 Count in 10's to 100 Count in 10's from a given number Count in 5's up to 100 Count in 2's up to 50 Recognise patterns in number Place Value Th H T U Partition up to 4 digit numbers Add numbers using place value (not bridging through) Bridge through 10 when adding Use mathematical terminology Students learn basic subtraction (numbers bonds from 10 – starting with one less.) Begin to use the language and 	Independent: Number	 Pick out described shapes from a collection. Compare sizes and quantities using familiar vocabulary in practical situations. To count one more one less. To know smallest/biggest Recognise & order numbers to 10/20 Write numbers to 10 Know the symbols for + & = Understand simple number sentences of addition Number bonds to 10 Count to 100 Count in 10's to 100 Count in 10's from a given number Count in 5's up to 100 Count in 5's up to 50 Recognise patterns in number Place Value Th H T U Partition up to 4 digit numbers Add numbers using place value (not bridging through) Bridge through 10 when adding Use mathematical terminology Students learn basic subtraction (numbers bonds from 10 – starting with one less.) Begin to use the language and 	Independent: Shape Space & Measure- Time	time of films, to know when the school bus should arrive and depart. Understand the duration of an activity by using sand timers, stopwatches etc Understand the difference of doing things fast/slow. Talk about past events or future plans. Name the 7 days of the week Sequence the 7 days of the week. Explore by commenting on environmental cues related to Time. Start telling the time: O'clock using an analogue clock. Learn, order and explore seasons. Learn and order months of the year To know: The 7 days of the week 12 Months of the year What a fortnight is How many weeks in a year How many days in a year What a decade, century & millennium is How many seconds in a minute How many minutes in an hour How many hours in a day How weeks in a year What an analogue clock is Minute hand & Hour hand O'clock Half past Quarter past & quarter to Five minute intervals Read the time from a 12 hour digital clock
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understanding of 'difference between'	understanding of 'difference between'	Learn seasons
 counting up from smaller to larger 	 counting up from smaller to larger 	Learn how to read the date in
number	number	words
Students to learn basic subtraction	Students to learn basic subtraction	Learn to read the date in numbers
(numbers bonds from 10 – counting up	(numbers bonds from 10 – counting	Learn to read the date in humbers
from smaller to bigger.)	up from smaller to bigger.)	
Find the difference between numbers	Find the difference between numbers	Explore and learn what a 12 hour
below 100 (encourage strategy of	below 100. (encourage strategy of	digital clock is about.
counting from a given number 10's.)	counting from a given number 10's.)	Read the time from a 12 hour
Find the difference between numbers	 Find the difference between numbers 	digital clock
from 1000 and below (encourage	from 1000 and below (encourage	Explore and learn what a 24 hour
strategy of counting from a given	strategy of counting from a given	'
number in 100's and 10's)	number in 100's and 10's)	digital clock is about.
		Learn to read the time for a digital
		24 hour clock.

	Autumn		Spring		Summer	
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Show anticipation and interest in watching collections being made.

Cooperate with adult or peers giving and

contrast creates line effect.

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Explore the consequential properties of shape, e.g. balls roll, boxes stand or slide, triangles topple.

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Maintain interest in looking as tower is built, respond to the bricks being knocked over.

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With assistance, put a smaller object inside a larger one.

Participate in the arrangement of objects

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Supported: Number	movement to '1, 2, 3, Go!' Hold coins to drop into a tin being passed around the group. Indicate choice from two objects. Consistently use a recognised response to indicate preferred choice of mathematical activities. Anticipate, follow and join in mathematical activities when given a contextual clue. Indicate 'one' or 'two' Show awareness of contrasting quantities Understand one-to-one correspondence in a range of contexts Join in rote counting up to five Count reliably to three, make sets of up to three objects Understand the concept of 'more'. Join in with number rhymes, songs, stories and games Rote count to ten Count at least five objects reliably	Supported: Number	 Indicate 'one' or 'two' Show awareness of contrasting quantities Understand one-to-one correspondence in a range of contexts Join in rote counting up to five Count reliably to three, make sets of up to three objects Understand the concept of 'more'. Join in with number rhymes, songs, stories and games Rote count to ten 	Supported: Shape, Space & Measure- Time	 Understand day/night. Relate familiar events to times of the day, days of the week and seasons of the year. Identify significant or desirable activities on specific days of the week Read an individual visual timetable. Understand the order of the day and simple timetables, for example, to plan TV viewing or radio listening, to find the starting time of films, to know when the school bus should arrive and depart.
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	Respond to 'add one' when working with a number of objects		 amount Understand 'less' Respond to 'add one' when working with a number of objects 		 Talk about past events or future plans. Name the 7 days of the week Sequence the 7 days of the week. Explore by commenting on environmental cues related to Time. Start telling the time: O'clock using an analogue clock. Learn order and explore seasons. Learn and order months of the year
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strategy of counting from a given	Find the difference between	•	Read the time from a 12 hour digital
number in 100's and 10's)	numbers from 1000 and below		clock
	(encourage strategy of counting from a given number in 100's and	•	Explore and learn what a 24 hour
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Experience use of number names for small numbers, e.g. associating the pointing of a finger to a single object or tracking as individual objects are pointed at or sequentially illuminated by a torch. Receive tokens offered by adults or peers intended as tallies marking events such as scoring in a game.

Appreciate that adult finger-counting is denoting sequence of quantity.

Accept wooden or plastic numerals as tokens and be encouraged to explore their shapes.

Recognise differences in groups of objects and chooses the larger group.

Place items in containers and empty them, anticipating the sequence with associated language used by adult or peer.

Begin to anticipate the ending or key elements of rhymes, songs and number games.

ADDITION AND SUBTRACTION

Become aware of adults entering and leaving their immediate vicinity and appreciating presence of one and more individuals.

Extend glances between their own hands, or between objects within close vision, or begins to feel alternative items.

Experience adult's use of language and intonation that refers to 'another' or 'more'. Extend awareness, watching sequences of items being placed or stacked, or being put into or taken out of bags, boxes, cupboards. Hear associated language.

Show anticipation and interest in watching collections being made.

Cooperate with adult or peers giving and

contrast creates line effect.

Manipulate and rotate objects, such as a cardboard tube, a triangular prism and an orange in hands.

Use grasp to develop awareness of texture, length, weight of familiar objects.

Use hands to enclose an object to experience its global shape and contours.

Experience the language of shape during exploration.

Explore the consequential properties of shape, e.g. balls roll, boxes stand or slide, triangles topple.

Use hand movements to trace around the edge of an object.

Begin to search for objects that have gone out of sight, hearing or touch, demonstrating the beginning of object permanence.

POSITION AND DIRECTION

Develop a trust and be willing to be moved or turned to experience different stimuli.

Respond to familiar items being moved within their immediate vicinity.

Show some awareness or desire to find source of sound that comes from side or behind.

Shuffle or wriggle, moving head and/or body to gain different view.

Turn head or body to seek new sound, show awareness of sounds behind. With assistance attempt to place a small box on a larger one.

Maintain interest in looking as tower is built, respond to the bricks being knocked over.

Follow the placement of objects in a line, and then reach out for the last object.

With assistance, put a smaller object inside a larger one.

Participate in the arrangement of objects

taking, experience language associated with in lines, under pots, on top of things, and gain and loss. remember where they are. Cooperate in building and reducing towers, Recognise that their coat hangs on a or filling and emptying containers such as hook. boxes of toys or bun trays. Use emerging language skills to direct Offer and accept items, express anticipation the hiding of objects. and awareness of opportunity to obtain Begin to search for objects that have items, regret at losing. gone out of sight, hearing or touch, Work with partner to extend patterns by demonstrating the beginning of object adding 'another one'. permanence. Point at items in sequence along a number Demonstrate interest in position and the line, coordinate pointing with associated relationship between objects. words sounds including intonation of increase and decrease. Initiate exploration and works independently collecting objects, expects things to be where they put them a few moments before. Make a tower taller or shorted by adding or removing objects. Follow sequence of pictures or numbers as indicated by the teacher during rhymes and songs. **REASONING ABOUT NUMBERS** Experience repeated contrasting sounds, e.g. high, low, high, low... long, short, long, short. Attempt to locate and focus on source of interesting sound patterns from voices, music, equipment, toys, or materials. Accept and engage in co-active exploration, manipulating items with adult support. Switch attention between objects on a table that are highlighted in turn using a torch beam, or are tapped to make distinct sounds. Begin to show desire to follow modelled actions and imitate adult responses in movement and sound patterns, e.g. long and short beats on a drum. Beats on a drum or cymbal in response to a familiar piece of music being played. Create a pattern which they then observe being continued by others. Complete a familiar sequence that has something missing or shows awareness that part of the sequence is incorrect.

	Show awareness of changes in shape, position or quantity. Use a finger to indicate 'one'. PROBLEMS INVOLVING 'REAL LIFE', MONEY OR MEASURES Show awareness as objects are placed against the hand, or face, in a series of touch events, accompanied by adult sound sequence. Show some anticipation of touch as items are touched on face or moved down their arm towards the hand, where they may grasp as items enter the palm. Retain a hold on objects for longer and takes objects to own face for examination. Place hands in sink as a jug of water is being emptied. Respond through facial expression or movement to '1, 2, 3, Go!' Hold coins to drop into a tin being passed around the group. Indicate choice from two objects. Consistently use a recognised response to indicate preferred choice of mathematical activities. Anticipate, follow and join in mathematical activities when given a contextual clue.				
Supported: Number	 Indicate 'one' or 'two' Show awareness of contrasting quantities Understand one-to-one correspondence in a range of contexts Join in rote counting up to five Count reliably to three, make sets of up to three objects Understand the concept of 'more'. Join in with number rhymes, songs, stories and games Rote count to ten Count at least five objects reliably Recognise numerals from 1 to 5 and understand that each represents a constant number or amount Understand 'less' 	Supported: Number	 Indicate 'one' or 'two' Show awareness of contrasting quantities Understand one-to-one correspondence in a range of contexts Join in rote counting up to five Count reliably to three, make sets of up to three objects Understand the concept of 'more'. Join in with number rhymes, songs, stories and games Rote count to ten Count at least five objects reliably Recognise numerals from 1 to 5 and understand that each represents a constant number or amount 	Supported: Shape, Space & Measure- Time	 Understand day/night. Relate familiar events to times of the day, days of the week and seasons of the year. Identify significant or desirable activities on specific days of the week Read an individual visual timetable. Understand the order of the day and simple timetables, for example, to plan TV viewing or radio listening, to find the starting time of films, to know when the school bus should arrive and depart. Understand the duration of an activity by using sand timers, stopwatches etc Understand the difference of doing things fast/slow.

	 Respond to 'add one' when working with a number of objects To count one more one less. 	Indonondout	 Understand 'less' Respond to 'add one' when working with a number of objects To count one more one less. 		 Talk about past events or future plans. Name the 7 days of the week Sequence the 7 days of the week. Explore by commenting on environmental cues related to Time. Start telling the time: O'clock using an analogue clock. Learn, order and explore seasons. Learn and order months of the year
Independent: Number	 To know smallest/biggest Recognise & order numbers to 10/20 Write numbers to 10 Know the symbols for + & = Understand simple number sentences of addition Number bonds to 10 Count to 100 Count in 10's to 100 Count in 10's from a given number Count in 2's up to 100 Count in 2's up to 50 Recognise patterns in number Place Value Th H T U Partition up to 4 digit numbers Add numbers using place value (not bridging through) Bridge through 10 when adding Use mathematical terminology Students learn basic subtraction (numbers bonds from 10 - starting with one less.) Begin to use the language and understanding of 'difference between' - counting up from smaller to larger number Students to learn basic subtraction (numbers bonds from 10 - counting up from smaller to bigger.) Find the difference between numbers below 100 (encourage strategy of counting from a given number 10's.) Find the difference between numbers from 1000 and below (encourage 	Independent: Number	 To know smallest/biggest Recognise & order numbers to 10/20 Write numbers to 10 Know the symbols for + & = Understand simple number sentences of addition Number bonds to 10 Count to 100 Count in 10's to 100 Count in 10's from a given number Count in 5's up to 100 Count in 2's up to 50 Recognise patterns in number Place Value Th H T U Partition up to 4 digit numbers Add numbers using place value (not bridging through) Bridge through 10 when adding Use mathematical terminology Students learn basic subtraction (numbers bonds from 10 - starting with one less.) Begin to use the language and understanding of 'difference between' - counting up from smaller to larger number Students to learn basic subtraction (numbers bonds from 10 - counting up from smaller to bigger.) Find the difference between numbers below 100 (encourage strategy of counting from a given number 10's.) 	Independent: Shape, Space & Measure- Time	 The 7 days of the week 12 Months of the year What a fortnight is How many weeks in a year How many days in a year What a decade, century & millennium is How many seconds in a minute How many minutes in an hour How many hours in a day How weeks in a year How many days in a year What an analogue clock is Minute hand & Hour hand O'clock Half past Quarter past & quarter to Five minute intervals Read the time from a 12 hour digital clock Learn seasons Learn how to read the date in words Learn to read the date in numbers Explore and learn what a 12 hour digital clock is about.

Do we have a discrete year 7 class for one year in order to assess these students thoroughly?

Note:

- With **Independent learners group** it is essential that other aspects of topic areas are taught throughout the foundation subjects: For example, measure is taught specifically with those students in Food Tech, DT, P.E. etc. Would ideally like to see planning in this area in the planner for the particular subject.
- All 3 groups of learners to experience numeracy **U&A/Problem Solving** in other subjects cross curricular approach