

Subject: Maths

Curriculum value and character drivers

	<b>Strive</b> Enthusiasm, perseverance and resilience	<b>Harmony</b> Empathy, understanding and tolerance	<b>Inspire</b> Responsibility, right and wrong, respect	<b>Nurture</b> Health bodies, minds and relationships	<b>Excel</b> Ambition
	Autumn		Spring		Summer
Reception	<ul style="list-style-type: none"> <li>• Getting to know you</li> <li>• Just like me!</li> <li>• It's me 1, 2, 3!</li> <li>• Light and dark</li> </ul>		<ul style="list-style-type: none"> <li>• Alive in 5!</li> <li>• Growing 6, 7, 8</li> <li>• Building 9 and 10</li> </ul>		<ul style="list-style-type: none"> <li>• To 20 and beyond</li> <li>• First, then, now</li> <li>• Find my pattern</li> <li>• On the move</li> </ul>
Year 1	<ul style="list-style-type: none"> <li>• Place Value (within 10)</li> <li>• Addition and subtraction (within 10)</li> <li>• Shape</li> <li>• Place Value (within 20)</li> </ul>		<ul style="list-style-type: none"> <li>• Consolidation</li> <li>• Addition and subtraction (within 20)</li> <li>• Place Value (within 50)</li> <li>• Length and height</li> <li>• Weight and volume</li> <li>• Consolidation</li> </ul>		<ul style="list-style-type: none"> <li>• Consolidation</li> <li>• Multiplication and division</li> <li>• Fractions</li> <li>• Position and direction</li> <li>• Place value (within 100)</li> <li>• Money</li> <li>• Time</li> </ul>
Year 2	<ul style="list-style-type: none"> <li>• Place Value</li> <li>• Addition and subtraction</li> <li>• Money</li> <li>• Multiplication and division</li> </ul>		<ul style="list-style-type: none"> <li>• Multiplication and division</li> <li>• Statistics</li> <li>• Properties of shape</li> <li>• Fractions</li> </ul>		<ul style="list-style-type: none"> <li>• Length and Height</li> <li>• Position and direction</li> <li>• Consolidation and problem solving</li> <li>• Time</li> <li>• Mass, capacity and temperature</li> </ul>
Year 3	<ul style="list-style-type: none"> <li>• Place Value</li> <li>• Addition and subtraction</li> <li>• Multiplication and division A</li> </ul>		<ul style="list-style-type: none"> <li>• Multiplication and division B</li> <li>• Length and perimeter</li> <li>• Fractions A</li> <li>• Mass and capacity</li> </ul>		<ul style="list-style-type: none"> <li>• Fractions B</li> <li>• Time</li> <li>• Shape</li> <li>• Statistics</li> <li>• Consolidation</li> </ul>

Year 4	<ul style="list-style-type: none"> <li>• Place Value</li> <li>• Addition and subtraction</li> <li>• Length and perimeter</li> <li>• Multiplication and division</li> </ul>	<ul style="list-style-type: none"> <li>• Multiplication and division               <ul style="list-style-type: none"> <li>• Area</li> <li>• Fractions</li> <li>• Decimals</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Decimals</li> <li>• Money</li> <li>• Time</li> <li>• Statistics</li> <li>• Properties of shape</li> <li>• Position and direction</li> <li>• Consolidation</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Place Value</li> <li>• Addition and subtraction</li> <li>• Statistics</li> <li>• Multiplication and division</li> <li>• Perimeter and area</li> </ul>	<ul style="list-style-type: none"> <li>• Multiplication and division               <ul style="list-style-type: none"> <li>• Fractions</li> </ul> </li> <li>• Decimals and percentages               <ul style="list-style-type: none"> <li>• Consolidation</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Consolidation</li> <li>• Decimals</li> <li>• Properties of shape</li> <li>• Position and direction</li> <li>• Converting units</li> <li>• Volume</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Place Value</li> <li>• Addition, subtraction, multiplication, division</li> <li>• Fractions A</li> <li>• Fractions B</li> <li>• Converting Measure</li> </ul>	<ul style="list-style-type: none"> <li>• Ratio</li> <li>• Algebra</li> <li>• Decimals</li> <li>• Fractions, decimals and percentages</li> <li>• Area, perimeter and volume</li> <li>• Statistics</li> </ul>	<ul style="list-style-type: none"> <li>• Shape</li> <li>• Position and direction</li> </ul> <p>Themed projects, consolidation and problem solving</p>

Moral - Ability to recognise integrity (the difference between right and wrong) and to readily apply this understanding in their own lives, recognise legal boundaries and, in so doing, respect the civil and criminal law of England.

Spiritual Development - Ability to be reflective about their own beliefs (religious or otherwise) and perspective on life. Knowledge of, and respect for, different people's faiths, feelings and values.

Cultural – The essential knowledge pupils need to be educated citizens, introducing them to the best that has been thought and said and helping to engender an appreciation of human creativity and achievement (music, art, poetry etc.).

Social – Ability to use of a range of social skills in different contexts, for example **working and socialising** with other pupils, including those from different **religious, ethnic and socio-economic backgrounds**. Demonstrate a willingness to participate in a variety of communities and social settings, including by volunteering, **cooperating well with others** and being able to **resolve conflicts effectively**.

Character – a set of positive personal traits, dispositions and virtues that informs their motivation and guides their conduct so that they reflect wisely, learn eagerly, behave with integrity and cooperate consistently well with others.

Value	KS1	KS2
<b>Strive</b> Enthusiasm, perseverance and resilience	At Northwood Park, we focus on developing deep understanding rather than memorisation, helping children to develop self-belief, persistence and resilience through 'small steps' progression. This allows children to learn at their own pace while still achieving high standards. Children feel safe to make mistakes, with 'Marvellous Misconceptions' shared. Pupils are encouraged to be creative and conjure a sense of exploration and curiosity and discuss their mistakes, thus reducing anxiety around the subject.	Daily problem-solving activities have multiple approaches towards their solution to enable our learners to build both their resilience and perseverance. We encourage pupils to discuss their math; by sharing and discussing alternative approaches, learners will begin to develop a 'toolkit' of methods so they can make more informed decisions about which approach to take on future occasions.
<b>Harmony</b> Empathy, understanding and tolerance	Every lesson utilises an 'I Do, We Do, You Do' approach which encourages pupils to work together to learn new skills and knowledge. Throughout the lesson, mathematical talk is encouraged and pupil work, both in pairs and in larger table groups, to discuss, unpick and share their creative solutions to problems. During this discussion, pupils develop tolerance of other's ideas. Children also use maths to learn about different faiths and cultures around the world. E.g., looking at patterns/shapes within Islam/ Hindu religions. Pupils participate, co-operate and resolve conflicts posed in daily reasoning and problem-solving task which involve 'but also 'X thinks ____, Y thinks ____, who is right?' type questions. We help to demonstrate democracy in action,	Children regularly work in groups to explore concepts and challenges, developing teamwork, understanding and tolerance of other's ideas. This teamwork supports creative thinking and engagement with the subject as it promotes collaborative problem solving and mathematical discussion. During 'statistics' topics, pupils will vote when collecting data. Pupils are encouraged to use their imagination and creativity to explore ideas while learning mathematics by identifying and applying patterns and rules to everyday problem-solving; writing own problems and challenges that use those patterns or rules. As in KS1, pupils participate, co-operate and resolve conflicts posed in daily reasoning and problem-solving task which involve 'but also 'X thinks ____, Y thinks ____, who is right?' type

	for example, by letting all students share views on what is being learnt, which is furthered through the use of pupil voice to reflect upon practice and identify ways in which to improve.	questions. We help to demonstrate democracy in action, for example, by letting all students share views on what is being learnt. This is furthered through the use of pupil voice to reflect upon practice and identify ways in which to improve.
<b>Inspire</b> Responsibility, right and wrong, respect	Children learn to follow both class rules during tasks and activities for the benefit of all children, taking turns and not speaking over others, as well adhere to the rules of math games. Children work within boundaries to make safe choices during practical activities and learn to share concrete resources such as scales, weights, shapes etc. Pupils are able to make their own choices within data handling activities, and through this learn to respect other choices. Daily reasoning tasks help pupils develop an understanding of the consequences of actions: E.g. If you perform a particular action to one number, will the same outcome apply to other numbers? Is it always the case? 'Sometimes, always, never' statements.	Pupils' experiment applying rules in calculations during algebra and geometry lessons and develop an understanding of the consequences of actions: E.g. If you perform a particular action to one number, will the same outcome apply to other numbers? Is it always the case? 'Sometimes, always, never' statements. Group work allows pupils to learn mutual respect and to behave appropriately, allowing all peers the opportunity to work effectively. Pupils learn how to: take turns and share equipment; review each other's ideas and work respectfully; work collaboratively on projects and problems, helping and advising others.
<b>Nurture</b> Health bodies, minds and relationships	Children are encouraged not to be afraid to make mistakes and learn from them. 'Marvellous Misconceptions' are shared and discussed as part of learning in order to help develop a growth mindset. In problem solving, children are encouraged to take risks.	Pupils learn to understand and appreciate personal influences: taking into account other people's views and understanding how to express their own views. E.g., How to explain to someone where they may have gone wrong in a question when working as part of a team. Moreover, pupils are encouraged to devise their own ways to present ideas and solutions with 'Marvellous Misconceptions' discussed openly and in a positive manner as to build a growth mindset.
<b>Excel ambition</b>	Every pupil is given the opportunity to excel in Math. The use of 'small steps' progression allows children to learn at their own pace while still achieving high standards. The scheme of learning is designed to support the development of reasoning and problem solving alongside fluency to ensure challenge and ambition for all pupils.	As in KS1, every pupil has access to a 'Ladder Task': a high-ceiling, low threshold task designed to challenge all pupils, no matter their ability. Furthermore, topics are introduced to children in a logical order and revisited throughout the year to encourage deep learning and ensure children have the foundational knowledge they

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need, before moving on to more advanced maths concepts and tackling more challenging number problems.

SHINE

ACADEMIES

