## 6.1 N Class - Navigator Curriculum

Core mathematical facts, concepts, methods and strategies to be able to experience success when problemsolving.

keywords in (2/6 mark questions).



Year	2024 – 2025	2024 – 2025	2024 – 2025	2024 – 2025	2024 – 2025	2024 – 2025
	Topic: Calculation NPV Addition and subtraction.	Topic: Addition and subtraction.	Topic: Multiplication and division. Algebra	Topic: Number Ratio/Probability/Se quence Measure and accuracy-	Topic: Calculation. Addition and subtraction.	Topic: Angles and polygons Working in 2d/3d Measure and accuracy.

Multiplication and division.

## **Suggested Key Questions**

Can you tackle a word problem based on the topic.

#### Promote core facts.

Do you understand place value? Can you calculate using the add/subtract operations? Can you use Bidmas in multi stage calculations?

Can students recognise, find and name a half as one of two equal parts of an object, shape or quantity

Can you use understanding of title, labels and simple scales? (sixth-form)

## Key Skills and Knowledge:

Count backwards through zero to include negative numbers count in multiples of 6, 7, 9, 25 and 1000 identify, represent and estimate numbers using different representations

Recognise, find, name and write fractions 3 1,

Fractions and decimals and percentages.

## Measure and accuracy-Time

Multiplication of two digit numbers use grid method.
Division use bus stop method.

## Suggested Key Questions:

Can you tackle a word problem based on the topic.

#### **Promote core facts**

Do you know your 2.5.10 x tables. DO you know your 4,8 and 9 x tables. Do you know all your 12 x 12 tables. Can you Develop fluency Reason mathematically Solve problems involvina multiplication and division. Can you Develop fluency Reason mathematically Solve problems involvina monev. Can you Develop fluency Reason mathematically Solve problems

involving 2d/3d

shapes

#### Data and statistics

## Suggested Key Questions:

Can you tackle a word problem based on the topic.

#### Promote core facts

Can vou extract

data?

Can you present data? Can you use symbols? Can you Develop fluencv Reason mathematically Solve problems involving algebra. Can you Develop fluency Reason mathematically Solve problems involving data and statistics. Do you know metric measure for length, mass and capacity.

Use whole numbers, decimals and fractions and percentages to present results (sixthform)

## Key Skills and Knowledge:

Describe, interpret and compare observed distributions of a single variable through: appropriate graphical representation involving

weight/capacity/vol ume.

## Suggested Key Questions:

Promote core facts Can you tackle a word problem based on the topic.

Can you link likelihood and chance?
Can you Develop fluency
Reason mathematically Solve problems involving algebra.
Can you Develop fluency
Reason mathematically
Solve problems involving number.

Can you Develop fluency
Reason
mathematically
Solve problems
involving algebra.
Can you Develop fluency
Reason
mathematically
Solve problems
involving ratios,
probability and
sequence.

## Key Skills and Knowledge:

Recognise the place value of each digit in a four-digit number (thousands,

Fractions and decimals and percentages.

## Suggested Key Questions: Promote core facts Can you tackle a

Can you tackle a word problem based on the topic.

Can you order negative numbers? What are factors and multiples? Can you order decimal numbers? What are square numbers? Can you read scales? What is perimeter/ What is area?

# Can you write fraction? Can you find equivalent fractions?

## Can you simpoplify fractions?

## Key Skills and Knowledge:

Subtract fractions Mixed numbers.

Reinforce Count backwards through zero to include negative numbers count in multiples of 6, 7, 9, 25 and 1000 identify, represent and estimate numbers using

### Suggested Key Questions:

Promote core facts
Can you tackle a word
problem based on the
topic.

Do you know what opposite angles are? Do you know about angles inside triangles? Key Skills and Knowledge:

Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes

Identify and construct congruent triangles, and construct similar shapes by enlargement, with and without coordinate grids. Derive and use the sum of angles in a triangle and use it to deduce the angle sum in any polygon, and to derive properties of regular polygons

	4 1 , 4 2 and 4 3 of a length, shape, set of objects or quantity write simple fractions for example, 2 1 of 6 = 3 and recognise the equivalence of 4 2 and 2 1 .  Add fraction	Identify appropriate methods for collecting data (sixth-form)  Key Skills and Knowledge:  Count in multiples of 6, 7, 9, 25 and 1 000  Recall multiplication and division facts for multiplication tables up to 12 x 12  Recognise and use factor pairs and commutativity in mental calculations  Calculate and solve problems involving: perimeters of 2-D shapes (including circles), areas of circles and composite shapes  Draw and measure line segments and angles  Apply the properties of angles,  Recognise and use relationships between operations including inverse operations  Round numbers and measures to an appropriate degree of accuracy Mathematically Solve problems involving time.	discrete, continuous and grouped data; and appropriate measures of central tendency (mean, mode, median) and spread (range, consideration of outliers). construct and interpret appropriate tables, charts, and diagrams.  Substitute numerical values into formulae and expressions, including scientific formulae.	hundreds, tens, and ones) round any number to the nearest 10, 100 or 1 000  Use fraction and percentages to describe a proportion.	different representations	
Links to	<b>D</b> 1 1 2	<b>D</b> 1 1 2	D 1 1 2	D 1 1 2	<b>D</b> 1 1 2	D 1 1 2
Gatsby Benchmarks:	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths	Benchmark 2 Labour market to information. What are the current trends in the jobs market that involve maths skils

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| Benchmark 4.   |
| STEM opportunities-<br>linking career<br>opportunities and<br>what aspects of<br>mathematics they are<br>learning. | STEM opportunities-<br>linking career<br>opportunities and<br>what aspects of<br>mathematics they are<br>learning. | STEM opportunities-<br>linking career<br>opportunities and<br>what aspects of<br>mathematics they are<br>learning. | STEM opportunities-<br>linking career<br>opportunities and<br>what aspects of<br>mathematics they are<br>learning. | STEM opportunities-<br>linking career<br>opportunities and<br>what aspects of<br>mathematics they are<br>learning. | STEM opportunities-<br>linking career<br>opportunities and what<br>aspects of<br>mathematics they are<br>learning. |

Develop fluency Reason mathematically Solve problems