Recovery Curriculum Planning Mathematics

Post COVID-19 Lockdown

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Recovery Curriculum Planning

Summer Term

It is vital that all schools look to develop sequences of learning that:

- revisit prior learning across all the domains
- challenge and support pupils to remember key ideas and facts
- challenge pupils to reason and solve problems
- regain the levels of fluency and accuracy previously attained.

Remember the basics…

- Reasoning and problem solving
- Counting and place value
- Four operations (mental and formal)
- Key number facts
- Key facts about measures

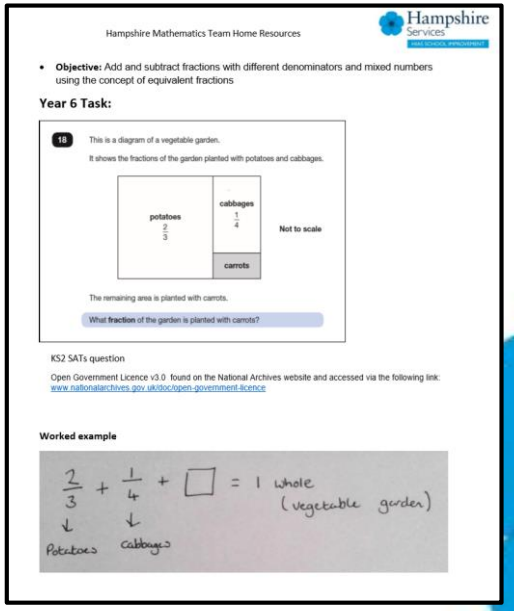
‘Home Learning’ resources
Year 1- Year 6

Each year group:

- Home learning schedule, including all domains, for whole summer term
- Linked example ‘problem of the week’

Each ‘Problem of the week’:

- **Written with simple explanation of the task for pupil independence, parental support**
- **Worked example for the solution**
- **Variations of the task for further practise**
- **Solutions**
- **References to online resource if used**


Hampshire Mathematics Team Home Resources

- **Objective:** Add and subtract fractions with different denominators and mixed numbers using the concept of equivalent fractions

Year 6 Task:

18 This is a diagram of a vegetable garden.

It shows the fractions of the garden planted with potatoes and cabbages.

potatoes $\frac{2}{3}$ of the garden

cabbages $\frac{1}{4}$ of the garden

carrots

Not to scale

The remaining area is planted with carrots.

What **fraction** of the garden is planted with carrots?

KS2 SATs question

Open Government Licence v3.0 found on the National Archives website and accessed via the following link: www.nationalarchives.gov.uk/doc/open-government-licence

Worked example

$\frac{2}{3} + \frac{1}{4} + \square = 1$ whole (vegetable garden)

↓ Potatoes ↓ Cabbages

https://maths.hias.hants.gov.uk/course/index.php?categoryid=135

‘Transition Plans’ from summer 2

Transition Plans start from summer 2 through to the end of the following autumn term.

Year 1 to Year 6

Eg Year 1 summer term to end of the autumn term in Year 2

- Link to Hampshire Primary scheme of learning Unit Plans
- First 7 weeks secures end of one year eg end of Year 1 before beginning to work in the following year’s curriculum eg Year 2
- Can be used with any other resource eg White Rose
- Support for changes of teacher summer/ autumn term giving one plan to follow

Revised 2020 Planning Overview: Summer 2 to end of Autumn

Hampshire Services
HIAS SCHOOL IMPROVEMENT

Wk	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
1	NPV Add/Sub	NPV Add/Sub	Multiplication/ division Fractions *start with multiplication/ division to get tables facts going again through the half term*	Multiplication/ division Fractions *start with multiplication/ division to get tables facts going again through the half term*	Fractions Geometry Percentages	All four operations
2						statistics
3					Multiplication/ division	Geometry (position and direction)
4	Multiplication/ division	Multiplication/ division Fractions	Add/Sub money	Add/Sub money time		Fractions (add/sub)
5	Add/Sub money				Add/ sub	Fractions (Multiplication/ division)
6		Add/sub money			All four operations (measure/ decimals)	Measure: perimeter, area &volume
7	Geometry	Geometry	Geometry	Geometry		Fractions, Decimals & Percentages
			End of Summer term			
1	NPV, Add/sub	NPV, Add/sub	NPV Add/sub,	NPV Add/sub,	NPV Add/sub, measurement	NPV Add/sub
2						
3						
4			Add/sub Measurement (money, length)	Add/sub Measurement (money, length)	Multiplication/ division	Multiplication/ division
5	Measurement (money, length) Add/ sub	Measurement (money, length) Add/ sub				
6			Multiplication/ division	Multiplication/ division		
7					Fractions	Fractions
			Half Term			
1	Multiplication/ division Fractions Geometry	Multiplication/ division Fractions Geometry	Fractions Geometry	Fractions Geometry	Fractions, Measurement, Geometry	Percentages Measurement, Geometry
2						
3						
4	NPV Add/sub statistics	NPV Add/sub statistics				
5			NPV Measurement (length, mass, time)	NPV Measurement (length, mass, time)	NPV Measurement all four operations	NPV, Measurement, all four operations
6						
7						

Year 2 | Year 3 | Year 4 | Year 5 | Year 6 | Year 7

'Transition' Plans 21 weeks

Autumn term 'Catch Up' plans 14 weeks

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Why Year 6?

- They are in a unique position – all pupils will be moving to a new school and working within a new curriculum
- For many pupils this imminent transition will be a source of anxiety
- They will be acutely aware that they have not completed their Primary curriculum
- We have an opportunity to work with Year 6 and develop a sense of growth and confidence in their ‘readiness’…

Year 6
Four week plan

- 20 lesson learning schedule based on the Hampshire Mathematics Scheme of Learning
- This document focusses on the core skills, knowledge and understanding that an ‘on-track’ learner would be expected to bring to the next stage of their learning

Teachers will need to adapt this schedule to the needs of their learners.

https://maths.hias.hants.gov.uk/

Week 1:
Four operations (inc decimals)

Week 2:
Geometry

Week 3:
Fractions (add/sub; multi/ divi, %)

(Week 4)
(Measurement)

Hampshire Mathematics Scheme of Learning: Summer Term 2020 Year 6

Week commencing	Unit	Area of study	Objectives	Key teaching points/ facts focus/ 'Big Ideas'
Mon 25-05-2020			HALF TERM	
Week 1	6.10	All four operations (secure the formal and informal methods) Mental arithmetic (add/ sub inc fraactions and decimals)	Solve problems involving addition, subtraction, multiplication and division, deciding which operations and methods to use and why Use knowledge of the order of operations to carry out calculations involving the four operations Identify common factors, common multiples and prime numbers.	**Revisit and embed informal strategies for addition and subtraction using complements to 10,100,1000.** *Use number-lines as a visual consolidation* **Revisit multiplication tables and associated facts** *Use arrays and bar models as visual consolidation to support transition from Y6 to Y7* **Model formal methods** *with models and images to remind learners of how and why a method works.*
	6.10	Statistics	Calculate the mean as an average and the range as a measure of spread Solve comparison, sum and difference problems using information presented in a line graph or pie chart Complete, read and interpret information in tables.	Review a range of known graphs and charts, including line graphs, bar charts, pie charts and pictograms. Plot information onto graphs and charts from given data Support pupils to construct and compare pie charts as appropriate Calculate and compare mean averages and ranges from different data sets to encourage pupils to reason about averages and their meaning.

Recovery Curriculum Planning

Autumn Term ‘Catch up’ plans

- revisit key learning from the previous year’s curriculum
- check and close the most vital ‘gaps’ in knowledge, skills and understanding
- focus on the more complex aspects of the previous year’s curriculum which is unlikely to have been covered or sufficiently understood. Possibly some domains not taught.
- align the revision and catch up coverage with the new year’s curriculum so that it is sequential and progressive, and enables pupils to catch up fully in the academic year 2020-2021

For particularly low attaining year groups, could start with ‘Transition Plans’ which have a 7 week focus securing previous year group’s curriculum before beginning Autumn term ‘Catch Up Plan’. Both plans seamlessly link together giving a 21 week plan.

Revised 2020 Planning Overview: Summer 2 to end of Autumn

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HIAS SCHOOL IMPROVEMENT

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4	Multiplication/ division	Multiplication/ division Fractions	Add/Sub money	Add/Sub money time	
5	Add/Sub money				Add/ sub
6		Add/sub money			All four operations (measure/ decimals)
7	Geometry	Geometry	Geometry	Geometry	
	End of Summer term				
1	NPV, Add/sub	NPV, Add/sub	NPV Add/sub,	NPV Add/sub,	NPV Add/sub, measurement
2					
3					
4			Add/sub Measurement (money, length)	Add/sub Measurement (money, length)	Multiplication/ division
5	Measurement (money, length) Add/ sub	Measurement (money, length) Add/ sub			
6			Multiplication/ division	Multiplication/ division	
7					Fractions
	Half Term				
1	Multiplication/ division Fractions Geometry	Multiplication/ division Fractions Geometry	Fractions Geometry	Fractions Geometry	Fractions, Measurement, Geometry
2					
3					
4	NPV Add/sub statistics	NPV Add/sub statistics			
5			NPV Measurement (length, mass, time)	NPV Measurement (length, mass, time)	NPV Measurement all four operations
6					
7					

Year 2 Year 3 Year 4 Year 5 Year 6

'Transition' Plans 7 weeks + 14 weeks

Autumn term 'Catch Up' plans 14 weeks

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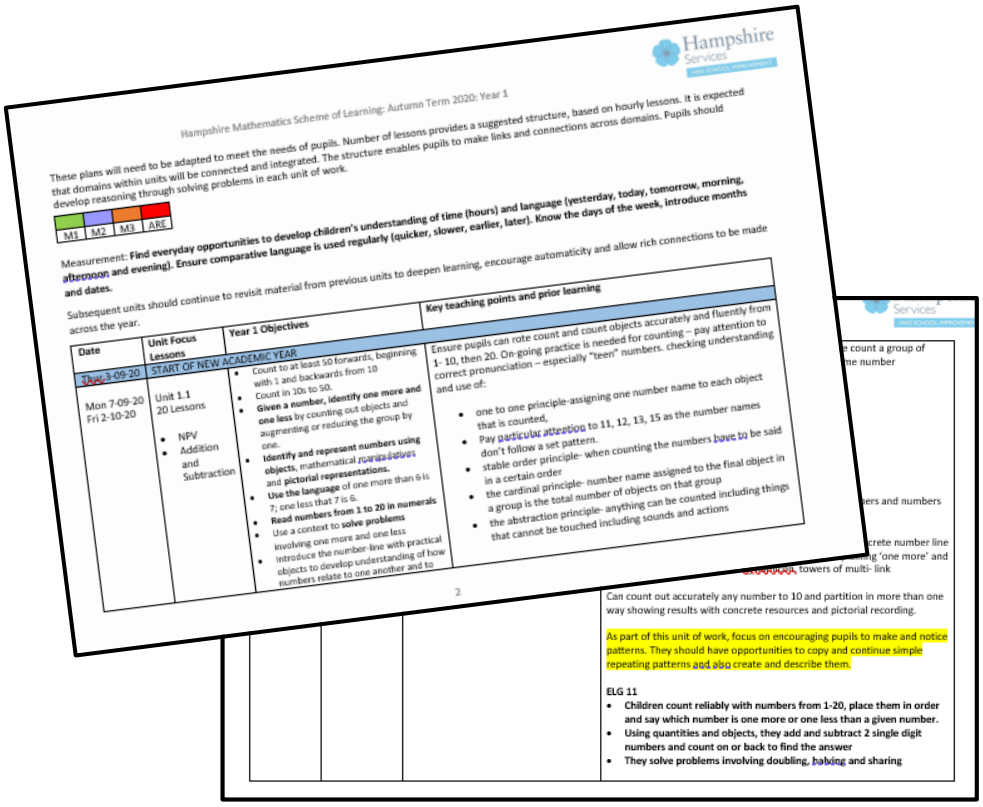
Autumn term ‘Catch Up Plan’ Year 1



Hampshire Mathematics Scheme of Learning: Autumn Term 2020: Year 1

These plans will need to be adapted to meet the needs of pupils. Number of lessons provides a suggested structure, based on hourly lessons. It is expected that domains within units will be connected and integrated. The structure enables pupils to make links and connections across domains. Pupils should develop reasoning through solving problems in each unit of work.

M1 M2 M3 ARE

Measurement: **Find everyday opportunities to develop children's understanding of time (hours) and language (yesterday, today, tomorrow, morning, afternoon and evening). Ensure comparative language is used regularly (quicker, slower, earlier, later). Know the days of the week, introduce months and dates.**

Subsequent units should continue to revisit material from previous units to deepen learning, encourage automaticity and allow rich connections to be made across the year.

Date	Unit Focus Lessons	Year 1 Objectives	Key teaching points and prior learning
Thur 3-09-20	START OF NEW ACADEMIC YEAR		
Mon 7-09-20 Fri 2-10-20	Unit 1.1 20 Lessons • NPV • Addition and Subtraction	• Count to at least 50 forwards, beginning with 1 and backwards from 10 • Count in 10s to 50. • **Given a number, identify one more and one less** by counting out objects and augmenting or reducing the group by one. • **Identify and represent numbers using objects**, mathematical [illegible] **and pictorial representations.** • **Use the language** of one more than 6 is 7; one less that 7 is 6. • **Read numbers from 1 to 20 in numerals** • Use a context to **solve problems** involving one more and one less • Introduce the number-line with practical objects to develop understanding of how numbers relate to one another and to	Ensure pupils can rote count and count objects accurately and fluently from 1- 10, then 20. On-going practice is needed for counting – pay attention to correct pronunciation – especially "teen" numbers. checking understanding and use of: • one to one principle-assigning one number name to each object that is counted, • Pay particular attention to 11, 12, 13, 15 as the number names don't follow a set pattern. • stable order principle- when counting the numbers have to be said in a certain order • the cardinal principle- number name assigned to the final object in a group is the total number of objects on that group • the abstraction principle- anything can be counted including things that cannot be touched including sounds and actions

2

Can count out accurately any number to 10 and partition in more than one way showing results with concrete resources and pictorial recording.

As part of this unit of work, focus on encouraging pupils to make and notice patterns. They should have opportunities to copy and continue simple repeating patterns and also create and describe them.

ELG 11

- **Children count reliably with numbers from 1-20, place them in order and say which number is one more or one less than a given number.**
- **Using quantities and objects, they add and subtract 2 single digit numbers and count on or back to find the answer**
- **They solve problems involving doubling, halving and sharing**

- **Supports YR to Y1 journey with references to ELGs**

- **Year 1 – Appendix Transition from the Early Years Foundation Stage to the Key Stage One Curriculum guidance document**

4 weeks: add/sub PV
3 weeks: measurement add/sub
3 weeks: multi/ div; fractions, geometry
4 weeks: NPV, add/sub

Links to Year 1 Unit Plans in Hampshire Primary Scheme of Learning

Catch up Plans from Autumn term
Year 1 to Year 6

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Hampshire Mathematics Scheme of Learning: Autumn Term 2020: Year 2

These plans will need to be adapted to meet the needs of pupils. Number of lessons provides a suggested structure, based on hourly lessons. It is expected that domains within units will be connected and integrated. The structure enables pupils to make links and connections across domains. Pupils should develop reasoning through solving problems in each unit of work.

M1	M2	M3	ARE

Measurement: **Find everyday opportunities to develop children's understanding of telling the time (quarter past and to the hour) and language (days of the week and months of the year).**

Calculation: **Find everyday opportunities to develop children's fluency with counting and addition and subtraction facts to 20 in context. E.g. lunch/sandwiches.**

Date	Unit Focus Lessons	Year 2 Objectives	Key teaching points and prior learning
Thur 3-09-20	START OF NEW ACADEMIC YEAR		
Mon 7-09-20 Fri 2-10-20	Unit 2.1 20 Lessons • NPV • Addition and Subtraction	• **Identify, represent and estimate numbers using different representations including the number line** • **Read and write numbers to at least 100 in numerals and in words.** • **Compare and order numbers from 0 up to 100, use <, > and = signs** • **Given a number, identify one/ten more and one/ ten less** (include writing as a number sentence) • **Use place value and number facts to solve problems**	• **Y1: Count to and across 100, forwards and backwards, beginning with 0 or 1, or from any given number** • **Y1: Identify and represent numbers using objects and pictorial representations, including the number-line, and use the language of: equal to, more than, less than (fewer), most, least.** • Use the number-line with structured resources to develop understanding of how numbers relate to one another and to support ordering. e.g. Explore place value patterns such as 7,17,27…. and 57,47,37___ On a number-line marked in multiples of 10, explore 'nearly numbers' such as those ending in '8' or '9'. E.g. '18 is close to (or nearly) 20'. • Revise representations for NPV and recording calculation eg number sentences (expressions and equations) two part 'cherry' and bar models and number lines • Solve problems involving add/ sub of tens • Revise and develop fluency in **solving problems that involve addition and subtraction to 20,** including revision of all number bonds of numbers to 10 using **concrete objects and pictorial representations.**

Date / suggested number of weeks for each block

Links to Unit Plan Learning Journeys in Moodle Plus, additional resources eg vocab cards

Year group objectives

Teaching tips for recovering learning, tracking back to previous curriculum

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Hampshire Mathematics Scheme of Learning: Autumn Term 2020: Year 2

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M1	M2	M3	ARE

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NCETM Professional Development materials

Hampshire Services
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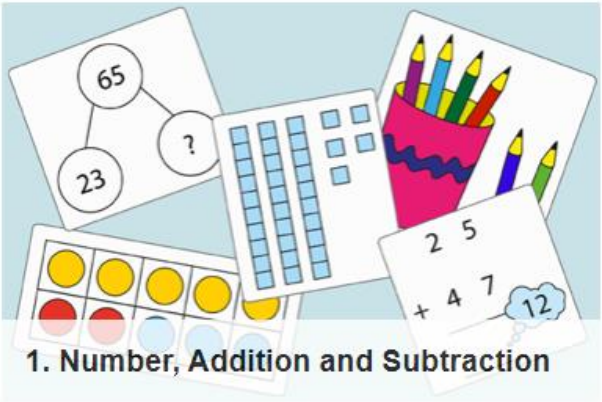
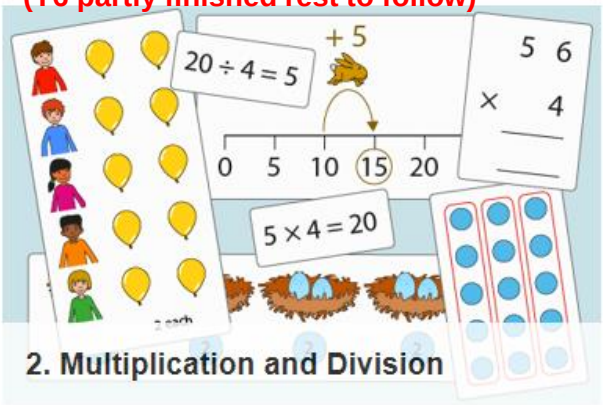
Y1-Y6 Complete
30 segments



1. Number, Addition and Subtraction

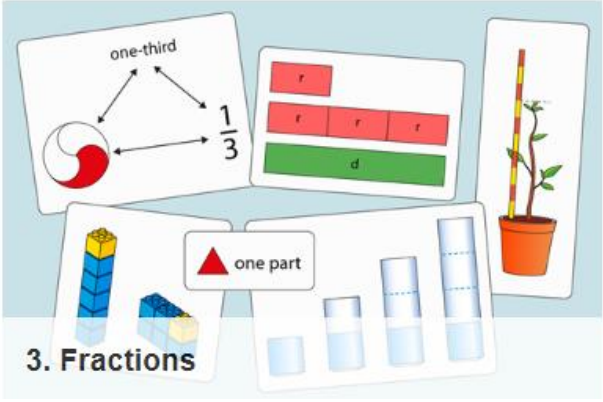
Y1-Y5 Complete
30 segments

(Y6 partly finished rest to follow)



2. Multiplication and Division

Y1-Y6 Complete
10 segments for Years 3–6, plus a preliminary segment (3.0) with guidance notes on teaching fractions in Key Stage.



3. Fractions

Y1-Y6 Key features :

- Progression in learning within a domain with reference to links across domains (PDF file and PPT file of representations)
- CPA approach to emphasise structure and relationships in mathematics
- Exemplification of vocabulary and language use needed by pupils to develop reasoning and support sharing of ideas
- Exemplification of use of concrete, representations (pictorial) and abstract notation
- Anchor tasks

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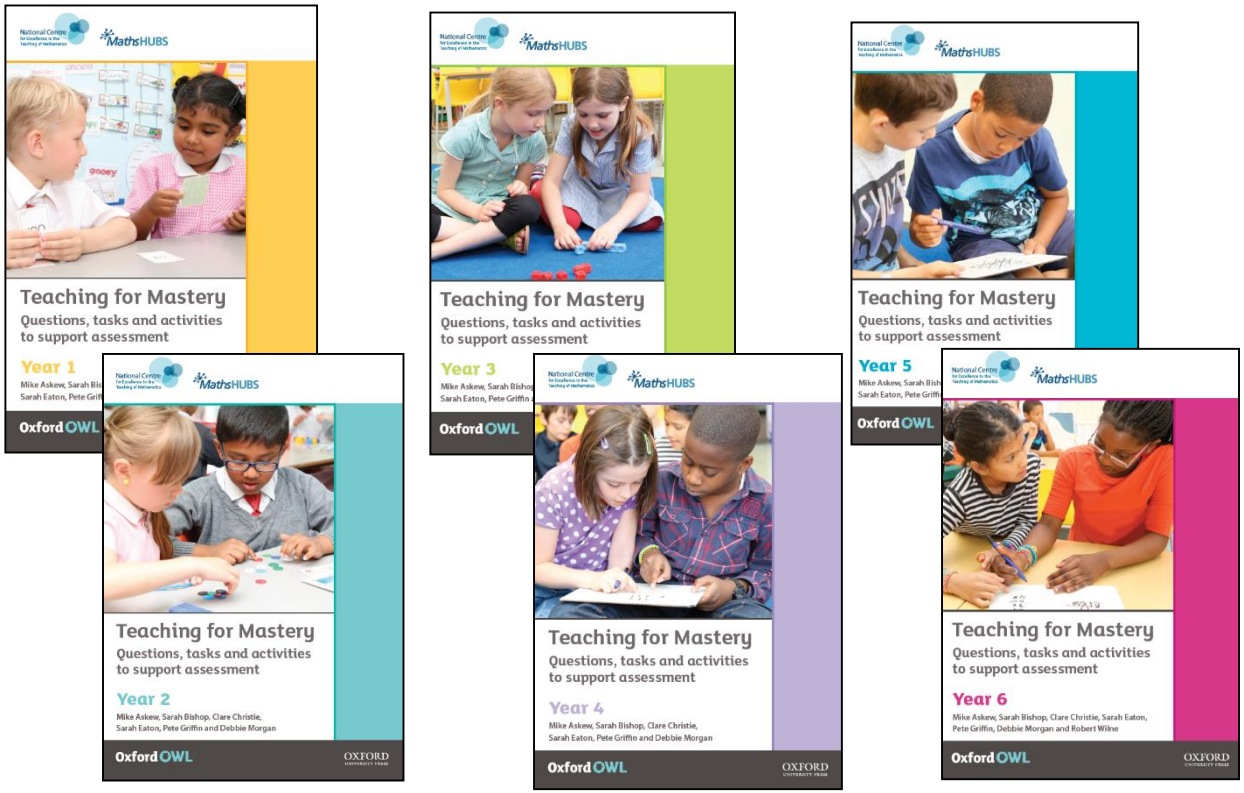
https://www.ncetm.org.uk/resources/50639

NCETM Teaching for Mastery

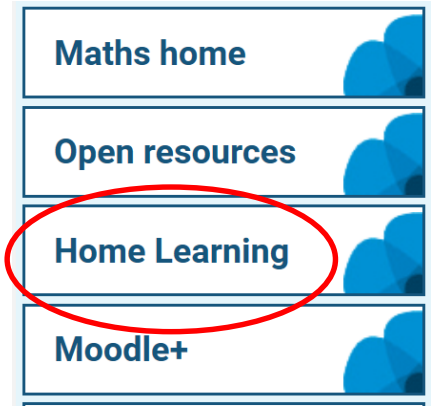


https://www.ncetm.org.uk/resources/46689

Resources

Home learning ‘open access’

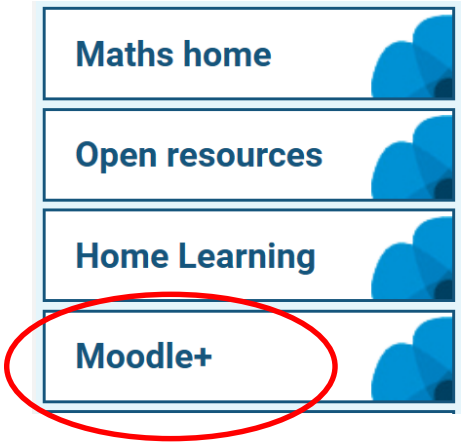
- Curriculum schedule
- Problem of the week



https://maths.hias.hants.gov.uk/course/index.php?categoryid=135

‘Transition and Catch up Plans for maths’ – Moodle+

- Year 6 Four week plan
- ‘Transition’ summer to autumn plans. Y1 to Y6
- Autumn term ‘Catch up Plans’. Y1 to Y6



https://maths.hias.hants.gov.uk/enrol/index.php?id=297