

Year 7 Unit 1 Overview-Number skills:

Test window: 7th November 2019 - 18th November 2019

Target grade for tests:

You will learn about:

- Numbers and the number system.
- Adding and subtracting.

You will be able to:

- Identify and find factors, multiples, prime numbers and composite (non-prime) numbers.
- Establish whether a number up to 100 is prime and recall prime numbers up to 19.
- Recognise and use square numbers and cube numbers, and the notation for squared (²) and cubed (³)
- Solve problems involving multiplication and division including using your knowledge of factors and multiples, squares and cubes.
- Read, write, order and compare numbers to at least 1,000,000 and determine the value of each digit.
- Read Roman numerals to 1000 (M) and recognise years written in Roman numerals.
- Use negative numbers in context, and calculate across zero.
- Add and subtract whole numbers with more than 4 digits, including using mental and written methods
- Solve addition and subtraction multi-step problems in contexts, deciding which operations and methods to use and why.
- Communicate your methods verbally, using a range of mathematical vocabulary.
- Structure your methods showing clear steps of workings.



<p>Lesson Overview</p> <p><u>NUMBERS AND THE NUMBER SYSTEM</u></p> <ul style="list-style-type: none">• Know and identify multiples of a given number• Know the identify factors of a given number• Find the 'common factor' of two numbers• Know the meaning of 'prime number' and recall the prime numbers less than 20• Know the prime factors of a given number• Know how to test if a number up to 100 is prime• Know and identify square numbers• Know and identify cube numbers <p><u>COUNTING AND COMPARING</u></p> <ul style="list-style-type: none">• Understand place value in numbers with up to seven digits• Order numbers up to and including those with seven digits• Write and read numbers up to and including those with seven digits• Read Roman numerals to 1000 (M)• Recognise years written in Roman numerals• Count forwards and backwards in whole number steps when negative numbers are included• Count forwards and backwards in whole number steps including through zero• Understand and use negative numbers in context, including temperatures below 0°C	<p>Key Words</p> <p>Refer to http://studymaths.co.uk/glossary.php for definitions of the key words</p> <p>Multiple (Common) factor Divisible Factor pairs Prime number, Composite number Square number, Cube number Power Place value Digit Roman numerals Negative number Addition Subtraction Sum, Total Difference, Minus, Less Column addition Column subtraction Operation Exchange Estimate</p> <p>Notation 5² is read as '5 to the power of 2' or '5 squared' and means '2 lots of 5 multiplied together' 5³ is read as '5 to the power of 3' or '5 cubed' and means '3 lots of 5 multiplied together'.</p>
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ADDING AND SUBTRACTING

- Add four-digit numbers and ones, tens, hundreds or thousands mentally
- Subtract four-digit numbers and ones, tens, hundreds or thousands mentally
- Use column addition for numbers with more than four digits with no carrying required
- Use column addition for numbers with more than four digits with carrying required
- Use column subtraction for numbers with more than four digits with no exchanging required
- Use column subtraction for numbers with more than four digits with exchanging required
- Solve multi-step problems involving addition and/or subtraction

Research	
Note-making	
Group work & discussion	
Memorisation	
Precision & accuracy	
Independence	
Reflection	

Suggested reading or support/challenge available

Support is available from a Maths teacher in 'MORALE' in M1 daily from 1:30pm -1:45pm

www.mymaths.co.uk
login: penryn
password: octagon

www.hegartymaths.com
Go to student login at the top... find your school, enter your details and then set up your password...

vle.mathswatch.co.uk/vle/
username: school
username@penryn-college
password: Penryn2016

www.justmaths.co.uk/online
login: PenrynStudent
password: Penryn

Use your revision guide
Use the code in the front of your guide to access your free online revision

Cross curricular

SMSC:

- 1.1 Exploring, understanding and respecting cultural diversity e.g. exploration of different methods of multiplication (Chinese, Russian).
- 3.1 Developing personal qualities and using social skills (regular paired/group work communication).
- 3.2 Participating, cooperating and resolving conflicts (paired/group activities).
- 4.2 Experiencing fascination, awe and wonder of mathematics.
- 4.4 Using imagination and creativity in learning.

Literacy: Verbal communication of understanding using key words in the correct context. Development of written communication of methods and strategies to problem solve.

NAC:

Science – Read and write numbers in figures and words. Recognise and use decimals and negative numbers. Estimation. Mental and written addition and subtraction. Know the multiplication tables and associated division facts. Multiplication and division calculations.

Technology- Read and write numbers in figures and words. Know the multiplication tables and associated division facts. Multiplication and division calculations.

Creative Arts – Read and write numbers in figures and words.

MFL – Recognise and use decimals. Written addition and subtraction. Multiplication and division calculations.

RE - Read and write numbers in figures and words.

PE - Know the multiplication tables and associated division facts. Multiplication and division calculations.

Geography - Read and write numbers in figures and words. Mental addition and subtraction. Know the multiplication tables and associated division facts. Multiplication and division calculations.

History - Mental addition and subtraction.