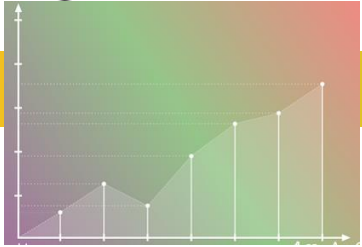# KEY STAGE 3 MATHEMATICS CURRICULUM

YEAR 7

AUTUMN TERM 1

Sequences

Understanding & using algebraic notation

Equality & Equivalence

AUTUMN TERM 2

'Place value and ordering integers & decimals

Fraction, decimal & percentage equivalence
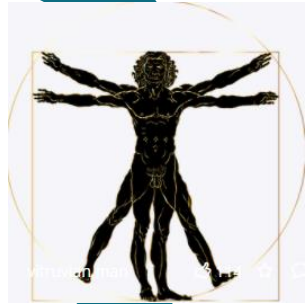
SPRING TERM 1

Solving problems with addition, subtraction, multiplication & division

Fractions and percentages of amounts

SPRING TERM 2

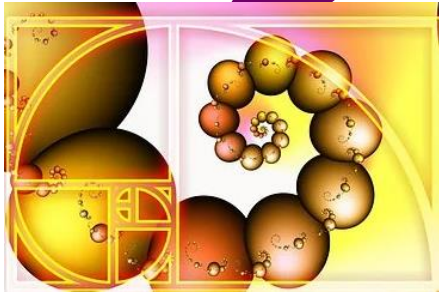*Operations and equations with directed numbers*

Addition and subtraction of fractions

SUMMER TERM 1

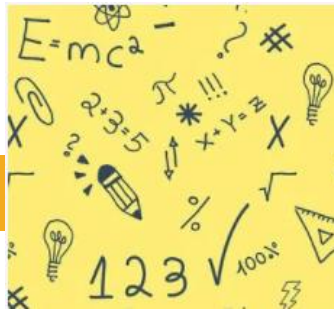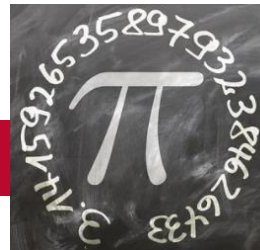*Constructing, measuring & using geometric notation*

Developing geometric reasoning
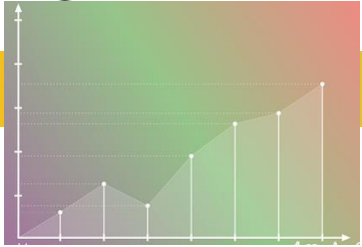
SUMMER TERM 2

Developing number sense

Sets and probability

Prime numbers and proof

KEY STAGE 3 MATHEMATICS CURRICULUM

YEAR 8

AUTUMN TERM 1
Ratio & scale

Multiplicative change

Multiplying & dividing fractions

AUTUMN TERM 2
'Working in the cartesian plane

Representing data

Tables & probability

SPRING TERM 1
Brackets, equations & inequalities
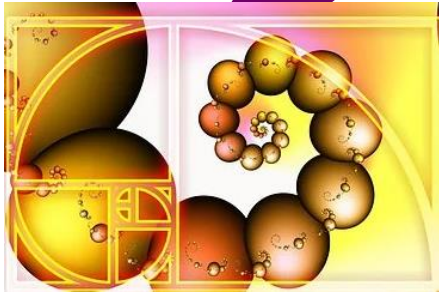
Sequences indices

SPRING TERM 2
Fractions & percentage
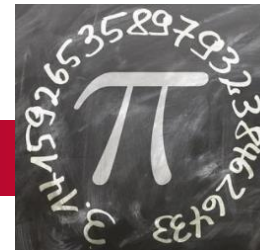
Standard index form

Number sense

SUMMER TERM 1
Angles in parallel lines and polygons

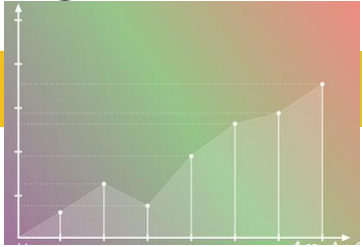*Area of trapezia & circles*

Line symmetry & reflection

SUMMER TERM 2
The data handling cycle

Measures of location'

Key stage 4
Mathematics Curriculum

YEAR 9F

AUTUMN TERM 1

Primes, factors & multiples

Algebraic manipulation

Accuracy & rounding

AUTUMN TERM 2

Mensuration

Proofs & formulae

Sequences

SPRING TERM 1

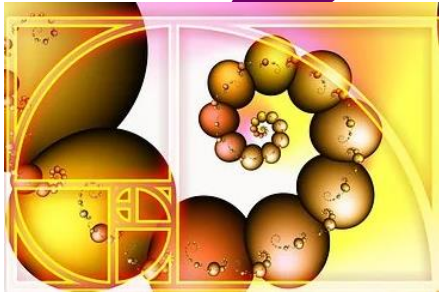*Geometric constructions & calculations*

Direct & inverse proportion

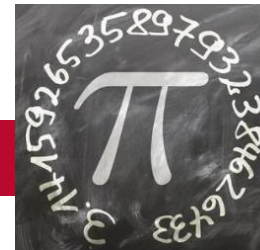**SPRING TERM 2**

Percentage change

Solving of equations

SUMMER TERM 1

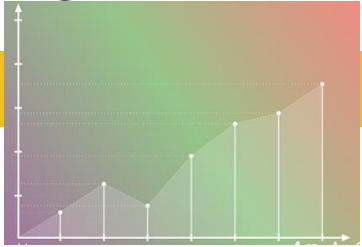*Fractions & decimals*
Indices & standard form

Exact calculations

SUMMER TERM 2

Equations & inequalities

Compound units

Key stage 4
Mathematics Curriculum

YEAR 9H

AUTUMN TERM 1

Primes, factors & multiples

Algebraic manipulation

Accuracy & bounds
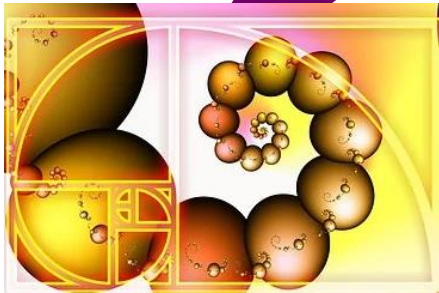
AUTUMN TERM 2

Pythagoras Theorem & Trigonometry;

Circles, spheres & pyramids;

Proofs & formulae

Construction & loci.

SPRING TERM 1

Geometric proofs

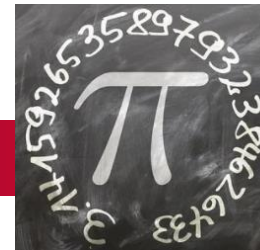Direct & inverse proportion

Percentage change

SPRING TERM 2

Graphical solutions of equations

Algebraic solutions of equations

SUMMER TERM 1

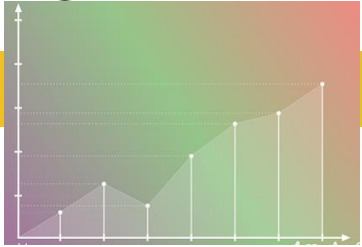Fractions & decimals

Standard form and indices

Surds

SUMMER TERM 2

Exact calculations

Trigonometry 2D & 3D representations

Sequences

**Key stage 4
Mathematics Curriculum**

YEAR 10F

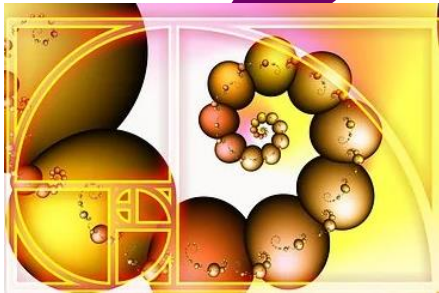**AUTUMN TERM 1**

2D & 3D representations

Geometric review

Vectors

AUTUMN TERM 2

'Probability

Bivariate data

Scatter diagrams

SPRING TERM 1

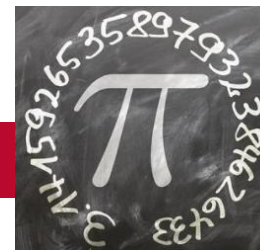*Collecting, organising, presenting and analysing data*

SPRING TERM 2

Time series

Index numbers

SUMMER TERM 1

Graphs

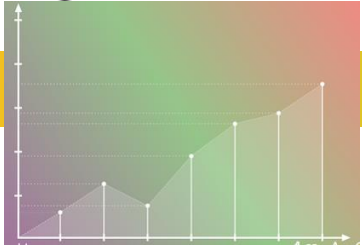*Transformations*

SUMMER TERM 2

Straight lines review

Non-linear graphs

Transformations

Key stage 4
Mathematics Curriculum

YEAR 10H

AUTUMN TERM 1
Straight line graphs
Real-world graphs

Similar figures

Compound units

AUTUMN TERM 2
Probability

Probability distributions

SPRING TERM 1
Data collection and sampling

Organising, presenting and analysing data

SPRING TERM 2
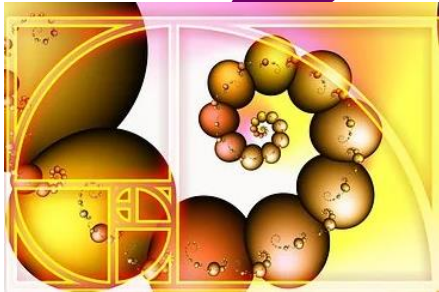*Processing and representing data*
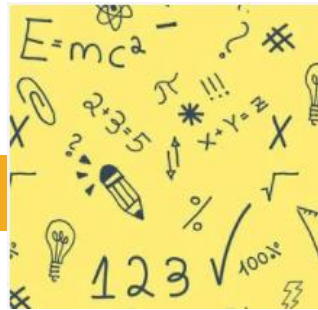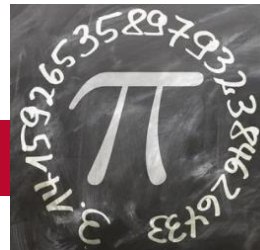
Summarising data

SUMMER TERM 1
Year 10 PPE1 w/c 18/04/22 & 25/04/22

Bivariate data

Time series

Index numbers

SUMMER TERM 2
Non-linear graphs

Transformations

STATISTICS EXAMS (dates tbc)'

Key stage 4 Mathematics Curriculum

YEAR 11F

AUTUMN TERM 1

PPE 1 Revision

AUTUMN TERM 2

Year 11 PPE 1 w/c 01/11/21 & 08/11/21

Targeted teaching based on QLA from PPE 1

SPRING TERM 1

Targeted revision
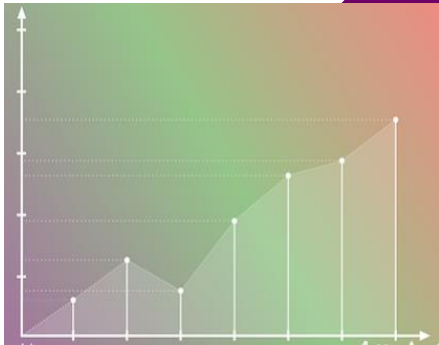
SPRING TERM 2

Targeted revision Year 11
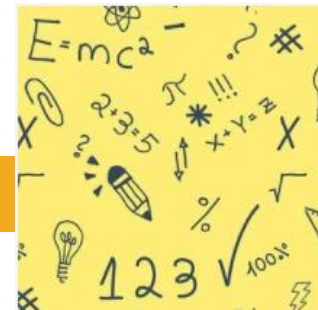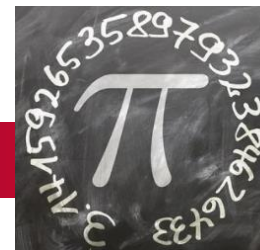
PPE 2 w/c 21/02/2022 & 28/02/2022

SUMMER TERM 1

Revision

OCR Paper 1 – 20th May 2022

SUMMER TERM 2

OCR Paper 2 – 7th June 2022

OCR paper 3 – 13th June 2022

**Keystage 4
Mathematics Curriculum**

YEAR 11H

AUTUMN TERM 1

Bespoke topics for each group based on weaknesses identified in QLAs following assessments including Year 10 PPEs Assessment & QLA Year 11 PPE 1; Revision

AUTUMN TERM 2

Year 11 PPE 1 – w/c 01/11/22 & 08/11/22

Bespoke topics for each group based on weaknesses identified in PPE1 QLA

SPRING TERM 1

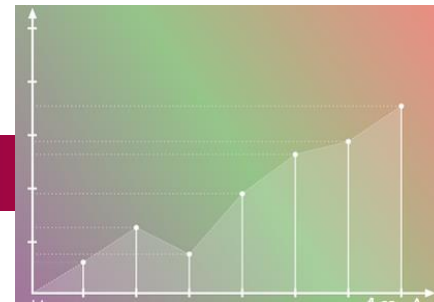*Targeted revision based on PPE QLA*

SPRING TERM 2

Targeted revision Year 11
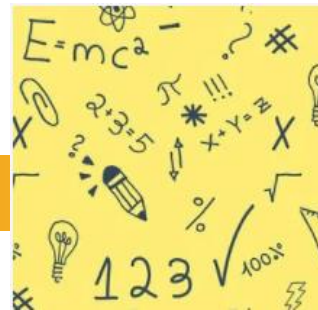
PPE 2 – w/c 21/02/2022 & 28/02/2022

SUMMER TERM 1

Targeted revision

Exam practice OCR Paper 4 – 20th May 2022

SUMMER TERM 2

OCR Paper 5 – 7th June 2022

OCR paper 6 – 13th June 2022

YEAR 12 Mathematics Curriculum

Year 12

Autumn Term 1

Algebra 1
Year 12 course suitability assessment
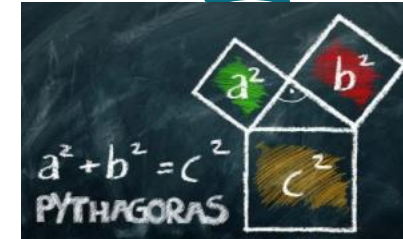Vectors

Autumn Term 2

Polynomials & binomial theorem
Units & kinematics
PPE 1 revision

Spring Term 1

Trigonometry
Forces & Newton's laws
Year 12 PPE 1 wb 07/02/22

Spring Term 2

Differentiation & Integration
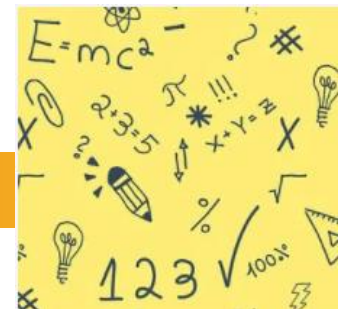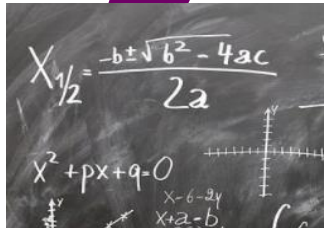Collecting, representing & interpreting data

Summer Term 1

Exponential & logarithms

Probability & discrete random variables

PPE 2 revision

Summer Term 2

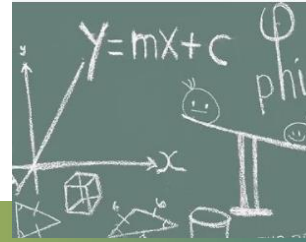Year 12 PPE2 – w/c 20/06/22

Hypothesis testing 1

Year 12 Further Maths
MATHEMATICS CURRICULUM

YEAR 12 FM

AUTUMN TERM 1

Matrices
Linear transformation
Complex numbers
Argand diagrams
Momentum and impulse
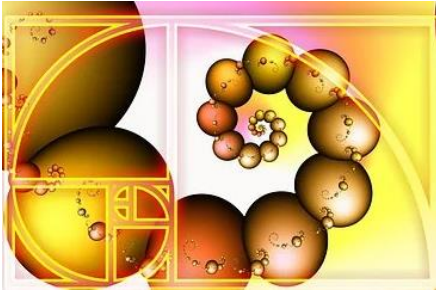Discrete random variable

AUTUMN TERM 2

Series
Roots of polynomials
Volume of revolutions
Binomial and poison distributions
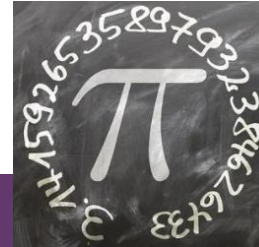Work energy and power

SPRING TERM 1

Year 12 PPE 1 w/c 07/02/22
Roots of polynomial
Vectors
Proof by induction
Elastics and springs
Elastic collision in 1-dimension
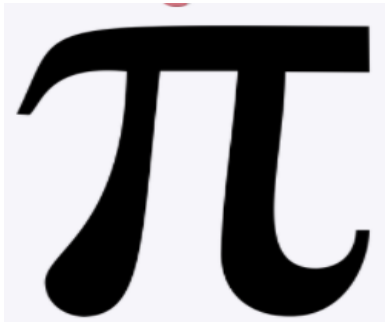Elastic collision in 2-Dimension
(introduction)

SPRING TERM 2

Elastic collision in 2D
Geometric and negative binomial distribution
Normal distribution and central limit theorem
Probability generating function
Chi square test
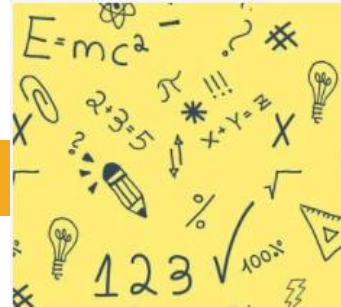Hypothesis testing;   Quality of test

SUMMER TERM 1

Volume of revolution
Revision
Exam preparation

SUMMER TERM 2

Year 12 PPE2 – w/c 20/06/22

Year 13
MATHEMATICS CURRICULUM

YEAR 13

AUTUMN TERM 1

Differentiation 2;
Two-dimensional motion with constant acceleration;
Two-dimensional motion with variable acceleration;
Motion under gravity 2;
Motion under forces;

Sequence -arithmetic and geometric sequence;
Algebraic fractions

AUTUMN TERM 2

Integration and differential equations;
Year 13 PPE – w/c 08/11/22; Trigonometric identities; Numerical methods;
The binomial series;
Proof -further Functions;
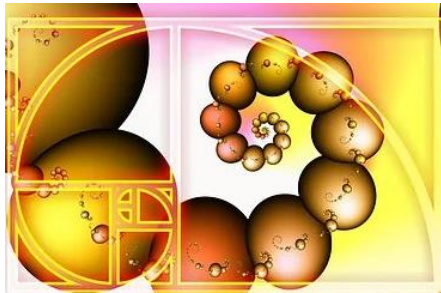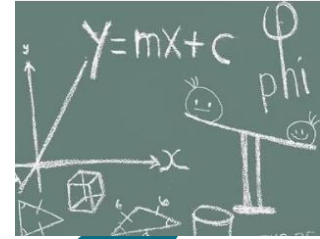*Partial fractions; Radians*

SPRING TERM 1

Radians *Reciprocal and inverse trigonometric functions;*

Compound angles;

Equivalent form of trigonometric addition/subtraction;

Statistics Year 13 PPE 1 w/c 07/02/22

SPRING TERM 2

Vectors in 3D

Statistics

Dynamics 2

Moments

Revision

SUMMER TERM 1

Revision

SUMMER TERM 2

Revision