MATHS
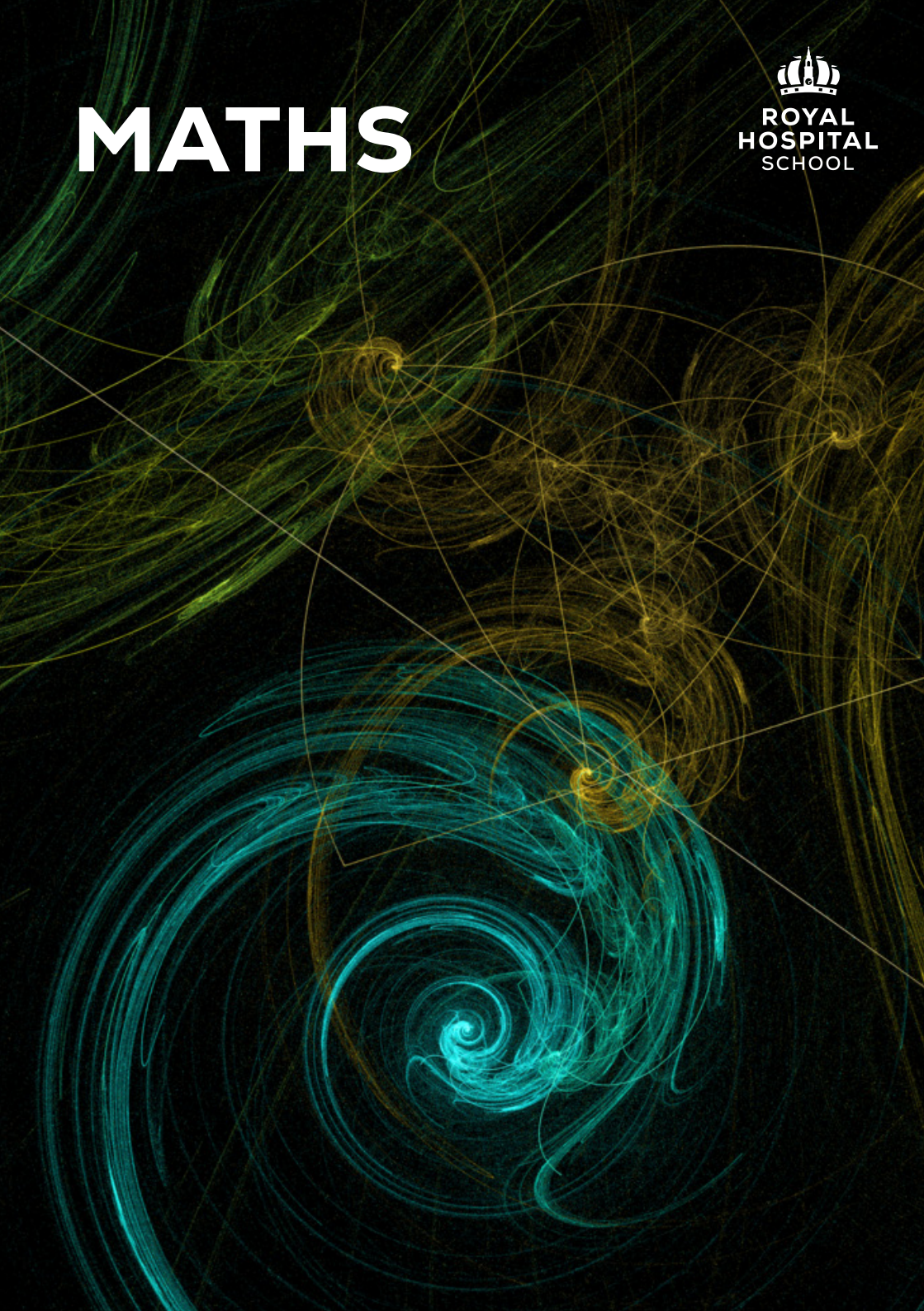
MATHS IN THE SIXTH FORM

Mathematics is a difficult subject at A Level unless you have some genuine interest in the subject. The nature of the subject alters in a more fundamental way than most other subjects after GCSE and there is a strong correlation between the results obtained by pupils at GCSE and A Level. Consequently if you do not achieve a pass in GCSE Higher Tier Mathematics at Grade 7, 8 or 9 it would not be advisable to study mathematics at A Level unless there are good reasons for believing that your GCSE result does not give a true picture of your ability and potential.

ESSENTIAL INFORMATION

- All pupils are prepared for the GCE examinations set by Edexcel.
- The course is split into two parts – Pure Mathematics and Applications (incorporating Statistics and Mechanics).
- There will be three examinations, all taken at the end of Year 13: Pure 1, Pure 2 and Mechanics & Statistics.
- Each exam will be 2 hours in length and worth 100 marks; the Mechanics and Statistics paper is split between the 2 disciplines, 50 marks for each, but still 2 hours in length.

WHAT WILL YOU STUDY?

The areas studied during the two year course are as follows:

PURE 1

- Algebra and functions
- Coordinate geometry in the (x,y) plane
- Trigonometry
- Vectors in 2D
- Exponentials and logarithms
- Differentiation
- Integration

PURE 2

- Proof
- Algebra, partial fractions and functions
- Sequences and series
- Parametric equations
- Trigonometry
- Vectors in 3D
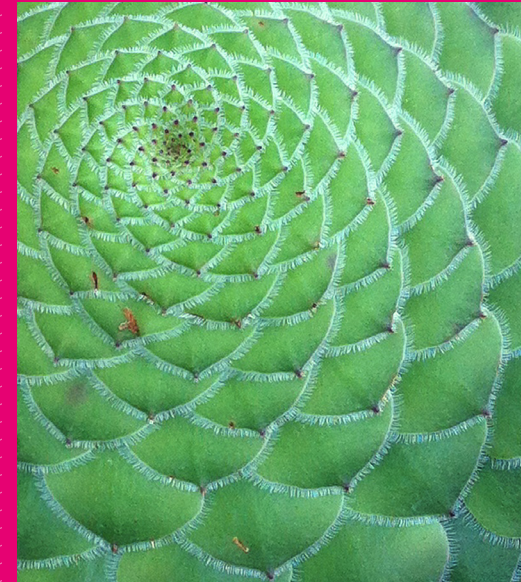- Differentiation
- Integration
- Numerical methods

MECHANICS AND STATISTICS

Section A: Statistics

- Statistical sampling
- Data presentation and interpretation
- Probability
- The normal distribution
- Regression and correlation
- Statistical distributions
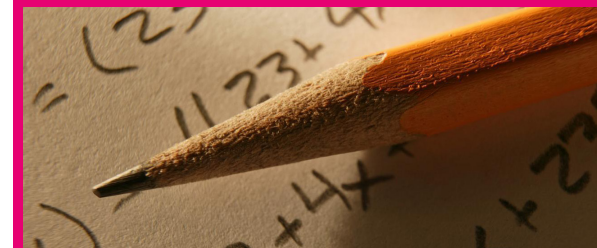- Statistical hypothesis testing

Section B: Mechanics

- Quantities and units in mechanics
- Kinematics
- Forces and Newton's laws
- Moments
- The motion of projectiles

> **"PURE MATHS IS, IN ITS WAY, THE POETRY OF LOGIC"**
> *– Albert Einstein*

CAREERS

Maths can lead to a variety of careers:

UNDERWRITER
ARMY OFFICER PROGRAMMER
INSURANCE BROKER TEACHER ACTUARY
HR TECHNICAL SUPPORT
AERONAUTICAL ENGINEER
GEOPHYSICIST PHYSICIST
CONSULTANT STATISTICIAN
CHARTERED ACCOUNTANT
SOLICITOR STOCK TRADER
CONSULTANT FINANCIAL RISK ANALYST
METEOROLOGIST LECTURER
PR RESEARCHER WEB DESIGNER

For more information or if you have any questions please
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