Term	MYP1	MYP2	MYP3	MYP4	MYP5
Michaelmas HT1	**Seeing Number & patterns** **Contents:**In this section you will explore the number line, directed numbers, rounding and important number sequences **Project:** Explore communication with aliens through patterns **Assessment Format:** Create a poster explain how much you have deciphered about the alien society **Literacy:** Explaining through writing how we can tell the level of development by the level of maths **Speech:** students encouraged to do micro teaching at board **Numeracy:** Properties of number **Internationalism/British values:** Respect and Tolerance - Cultural sensitivity around first contact with an alien species	**Seeing number patterns in nature** **Contents:** In this section you will explore the decimal system, multiplication, division, inequalities, BIDMAS and number sequences **Project:** Explore how ants make their nests **Assessment Format:** Extended project with final presentation **Literacy:** Description of ant colony **Speech:** students encouraged to explain vocabulary **Numeracy:** Properties of number and how number sequences can be used to describe growth sequences **Internationalism/British values:** Rule of Law - How communities regulate and control themselves	**Understanding number in depth** **Contents:** In this section you will explore Complex BIDMAS, time calculations, rounding **Project:** Create your own number system to code messages using the knowledge of the ancients **Assessment Format:** Extended project with final presentation **Literacy:** Written description of number systems from the past **Speech:** students encouraged to discuss the features of the history of the number system **Numeracy:** Understanding sequence and base **Internationalism/British values:** Respect and Tolerance - Understanding the importance of communication	**Applying number to the real world** **Contents:** In this section you will explore standard form, accuracy and reading scales **Project:** Develop a lunar fun fair and create a plan view, profit and loss account **Assessment Format:** Business plan written **Literacy:** writing business plan **Speech:** students encouraged to do micro teaching at board **Numeracy:** Applying scale drawing, costing, percentages and ratio **Internationalism/British values:** Individual Liberty - Developing innovative ideas	**Applying trigonometry in architecture** **Contents:**In this section you will explore the use of Trigonometry to solve shape problems including the sine and cosine rule. **Project:** Work out whether a new greenhouse meets the sun requirements to make it successful. **Assessment Format:** Architectural Project report **Literacy:** Describe the methods used to make the calculations **Speech:** Students verbally explain how to measure tree height **Numeracy:** Using trigonometry, scale drawing and computer modelling **Internationalism/British values:** Understanding how the built environment is affected by the natural environment
Cross Curricular	Humanities	Science, Humanities	English, Humanities	English, Humanities	Science, Humanities
Michaelmas HT2	**Comparing and deciding** **Contents:** You will look at all multiplication and division methods including decimal operations. You will also look at he four fraction operations **Project:** Teach a lesson on fractions exploring physical ways of explaining problems. **Assessment Format:** Teach a lesson **Literacy:** Verbal communication for clarity **Speech:**Learn how to explain complex concepts verbally **Numeracy:** Fraction operations **Internationalism/British values:** Learning how to explain and understand others	**Calculations and livelihood** **Contents:** You will expand your long division methods and look at fraction operations and percentages **Project:**Make a successful horse stable business **Assessment Format:** Extended project including calculations and scale drawings **Literacy:** Description of your horse stable **Numeracy:** Percentages, profit and loss **Internationalism/British values:** Understanding the processes underlying business	**Understanding new media through calculation** **Contents:** In this section you will consolidate your ratio, percentage and fraction work so you can effectively use it in real life **Project:** Build your own social media company, write a business report on its success **Assessment Format:** Extended project and presentation **Literacy:** Written business report **Speech:** Micro teaching at the board at least one lesson **Numeracy:** Applied percentages to financial growth **Internationalism/British values:** Understanding the technologies which drive our society	**Understanding Manufacture** **Contents:** In this section you will use proportional and inverse reasoning, compound interest to solve problems **Project:** Product wars - develop a successful juice drink and optimise its production to maximise sales and profit **Assessment Format:** Extended project and presentation **Literacy:** Written presentation **Speech:** Discussions around sales and marketing strategies **Numeracy:** Applied percentages to financial growth, sales modelling **Internationalism/British values:** Understanding the processes of manufacture and sales	**Complex Patterns** **Contents:** In this section you will expand your use of linear graphs and quadratic graphs so that you can points where they intersect. **Project:** Develop a missile defence system to a fixed budget **Assessment Format:** Extended project and presentation **Literacy:** Written presentation **Speech:** Group sharing of research findings **Numeracy:** Applied graphs, speed, time distance, equations **Internationalism/British values:** Understanding the need for defence at time of conflict
Cross Curricular	English	Humanities, Science, English	Humanities, English	English, Humanities	Humanities, Science, English

Term	MYP1	MYP2	MYP3	MYP4	MYP5
Lent HT3	**Selecting the perfect spry - Finding Connections** **Contents:** In this section you will learn how to collect data, present it in bar and line graphs. You will also compare results by calculating averages like mean, mode, median and range **Project:** Develop a testing regime for would be spies. This involves experiments and graph work. **Assessment Format:** Create a suggested spy test based on your experiments and data analysis **Literacy:** Write report **Speech:** Discussions on suitable criteria for a spy based on individual research **Numeracy:** Data calculations and graphical analysis **Internationalism/British values:** Understanding the physical difference between people	**Saving the Planet - Finding Connections** **Contents:** In this section you will learn about presenting data through pie charts and scatter graphs. You will predict future results based n data correlations. **Project:** Make a case to the UN for saving Fuerteventura from sinking **Assessment Format:** Visual and verbal presentation **Literacy:** verbal and written presentation **Speech:** Verbal presentation to UN **Numeracy:** Statistical analysis of climate change data **Internationalism/British values:** Understanding the impact of climate change	**Controlling a Pandemic - Finding Connections** **Contents:** In this section you will expand your ability to look at data correlations and analyse averages to test results. You will use ICT to determine the equation for a correlation and look at different types of data fitting methods. **Project:** Analyse a pandemic and come up with a policy for the government **Assessment Format:** Create a policy document **Literacy:** Writing a policy based on statistical analysis **Speech:** Verbal quizes on vocabulary **Numeracy:** Statistical analysis **Internationalism/British values:** How disease control is at the heart of a civilised society	**Planning a countries medical budget - Finding Connections** **Contents:** In this section you will learn about cumulative frequency graphs and how to compare distributions to make clear decisions. **Project:** Develop the infectious disease budget for Lesotho. Present it in the format in a reasoned report **Assessment Format:** Extended project and report **Literacy:** report writing **Speech:**Discussion as a group on the criteria for making financal decisions **Numeracy:** Statistical analysis and cost analysis **Internationalism/British values:** Understanding how priorities are assigned in a society	**Complex Patterns continued** **Contents:** You will continue with your graphical algebra and also use speed, distance and time calculations to solve missilie problems. **Project:** Develop a missile defence system to a fixed budget **Assessment Format:** Extended project and presentation **Literacy:** Written presentation **Speech:**Verbal explanations on where your claculations may be improved **Numeracy:** Applied graphs, speed, time distance, equations **Internationalism/British values:** Understanding the need for defence at time of conflict
Cross Curricular	PHE, English, Science	Humanities, English, DRAMA	Humanities, English, Science	Humanities, Science, English	Humanities, Science, English
Lent HT4	**Creating Crooked Games - Probability** **Contents:** In this section you will explore at basic probability, relative frequency, theoretical probability and how to estimate expected outcomes **Project:** Analyse crooked games of chance and then build your own **Assessment Format:** Report and creation of a game **Literacy:** report writing **Speech:** Discussions on the meaning of fair and unfair **Numeracy:** Probability **Internationalism/British values:** How entertainment is crucial to a society	**Understanding Probability** **Contents:** In this section you will look at probability operations which are combined such as AND OR. You will see how these are used in computer games to create results **Project:** Complete project from HT3 **Literacy:** verbal and written presentation **Speech:** Micro teaching at the board **Numeracy:** Statistical analysis of climate change data **Internationalism/British values:** Understanding the impact of climate change	**Modelling the world with rules** **Contents:** In this section you will learn about how to solve all types of linear equations using a balancing method. You will also learn how to manipulate algebra through the indices rules. **Project:** Create a festival profit/loss spreadsheet and business plan for 10 festivals. **Assessment Format:** Extended project with final presentation **Literacy:** written presentation **Speech:** Micro teach at board an aspect of algebra **Numeracy:** Apply algebra to make a complex profit a loss spreadsheet **Internationalism/British values:** Understanding how the entertainment business functions in a society	**Creating art through maths** **Contents:** In this section you will improve your substitution skills and learn how to graphically plot all types of curves. You will also learn how to solve equations graphically. **Project:** Create graphical artwork by manual plotting graphs **Assessment Format:** Graphical artwork and assessment **Literacy:** review of artwork **Speech:** Aesthetic discssions on art and maths as a group **Numeracy:** Graph plotting **Internationalism/British values:** Understanding the interplay of maths and art	**Electrifying Gloucester - Using Algebra & ICT to model the real world** **Contents:** In this section you will learn how to build complex algebraic equations into spreadsheets to determine the amount of energy you can produce. You will learn methods of optimising the results and graphically presenting them **Project:** Create a complex model of the electrification of Gloucester on a spreadsheet and then complete a presentation **Assessment Format:** Extended project and report **Literacy:** review of artwork **Speech:** Research share discussions **Numeracy:** Graph plotting **Internationalism/British values:** Understanding the importance of creating technology change to solve future problems
Cross Curricular	Humanities	Humanities, English, DRAMA	Humanities, Design	Art	Science, Humanities

Term	MYP1	MYP2	MYP3	MYP4	MYP5
Summer HT5	**Save the world in a space ark - Algebra** **Contents:** In this section you will learn the basic rules of making formulae, substituting into formula and solving equations **Project:** Develop the rules which will allow you create a space ark of any size **Assessment Format:** Design and table of rules. **Literacy:** report writing **Numeracy:** Algebra rule generating **Internationalism/British values:** How we prioritise things in a crisis	**Run your own festival - Algebra** **Contents:** In this section you will learn how to substitute and manipulate algebraic expressions. You will learn how to solve basic equations and fraction equations by reverse methods and balancing. **Project:** Develop all the equations for running your own festival and then program them into a spreadsheet, Create a scale drawing of a 5000 strong festival **Assessment Format:** spreadsheet and scale drawing **Literacy:** summary report **Numeracy:** Algebra and spreadsheet **Internationalism/British values:** How entertainment is crucial to a society	**Modelling the world with rules .. continued** **Contents:** In this section you will learn how to factorise and expand algebraic equations. you will also learn how to plot linear and quadratic equations **Project:** Create a festival profit/loss spreadsheet and business plan for 10 festivals. **Assessment Format:** Extended project with final presentation **Literacy:** written presentation **Numeracy:** Apply algebra to make a complex profit a loss spreadsheet **Internationalism/British values:** Understanding how the entertainment business functions in a society	**Effective Teaching - Algebra 5** **Contents:** In this section you will learn how to solve quadratic equations by factorising and using the formulae method. You will also look at solving simple simultaneous equations. **Project:** Create an effective lesson in teaching a complex part of algebra **Assessment Format:** Presentation **Literacy:** Verbal communication **Speech**:Learn how to explain complex concepts verbally **Numeracy:** Algebra **Internationalism/British values:**How we teach and listen to each other	**Building the Olympics - Shape** **Contents:** In this section you will learn how to model in 3D and take measurements off the drawing. You will also develop your volume/area calculations so that you can calculate complex shapes **Project:** Build a model and cost an olympic village **Assessment Format:** Extended project and report **Literacy:** report writing **Numeracy:** Shape, costing and scale drawing **Internationalism/British values:** How sport brings us together
Cross Curricular	Science, Humanities	English and Humanities	Humanities	PSHE , English	PHE, Science
Summer HT6	**Creating Masks - Shape** **Contents:** In this section you will explore the building blocks of area, volume and geometry **Project:** Create a japanese face mask out of the elements of geometry you have learnt **Assessment Format:** Labelled mask with mathematical features **Literacy:** correct use of vocabulary **Speech:**Vocabulary quizzes **Numeracy:** Angles and geometry **Internationalism/British values:** How to understand different cultures	**Can we save the world by planting trees - shape** **Contents:** In this section you will expand your knowledge of shape learning skills in geometry, area and volume to solve real life problems. **Project:** Calculate whether the world can be saved by planting trees **Assessment Format:** Extended report and presentation **Literacy:** report writing **Speech:** Moral discussions on what effort you are prepared to make for climate change **Numeracy:** Area, volume and density calculations **Internationalism/British values:** Understanding natural solutions to climate change	**How shape calculations are used in war** **Contents:** In this section you will master all the aspects of how to calculate volume, area, loci and apply it to complex problems. You will look at how these skills can apply to conflict situations. . **Project:** Explore through a series of calculations the important parts of world war 2 create a report of your mission **Assessment Format:** Report and series of calculations **Literacy:** report writing **Speech:**Micro teaching of shape concepts at board **Numeracy:**Shape calculation, **Internationalism/British values:** How conflict arises and is resolved	**A journey across the atlantic - Shape 4** **Contents:** In this section you will be discovering the wonder of trigonometry and how it can be used to solve navigation. **Project:** You have to plan your journey across the atlantic using all your shape calculation skills **Assessment Format:** Extended project and report **Literacy:** report writing **Speech:** Discussions of historical maths and how they would do it? **Numeracy:** Shape calculations **Internationalism/British values:** Understanding the history of British discovery	**Building the Olympics - Shape - continued** **Contents:** As you progress to the final project you will be pulling all your maths together - using spreadsheets, learning complex estimating techniques and validating results **Project:** Build a model and cost an olympic village **Assessment Format:** Extended project and report **Literacy:** report writing **Speech:**Verbal presentation of project to peer group and providing feedback **Numeracy:** Shape, costing and scale drawing **Internationalism/British values:** How sport brings us together
Cross Curricular	English, Art, Design	Science, Humanities	Humanities, Science	Humanities, Science, English	PHE, Science