Bridging Course Exam requirements 2017

Subject: English (All Year)

- All pupils will be tested on Reading and Writing, Listening and Speaking.

Subject: PE (All Year)

- They will receive an assessment based on their practical experience during lessons.

Year 6

Subject: Science

Course Content	The Year 6 Bridging course for Science provides students with the knowledge to enter year 7 Science. Topics include Biology where students learn about human organ systems, joints, muscles and bones. Students also learn about plant organs, species definition and the classification of animals and plants. In Chemistry and Physics, students study the particle theory of matter which includes solids, liquids and gases. They also study phase changes such as evaporation, boiling, freezing and melting.
Key Skills/Concepts	Working collaboratively Data analysis Evaluating ideas Planning experiments Obtaining and presenting evidence

Subject: Mathematics

Course content

Students should be able to solve number problems and practical problems that involve all elements of place value, rounding, sequences, multiples and factors and decimals. In measures solve problems involving the calculation and conversion of units of length, time intervals and calendars and finding perimeter and area of simple shapes. In Geometry they should be able to identify polygons and 3D shapes, use the properties of quadrilaterals and triangles, draw nets, and use angle properties to solve problems. They should also know translating, reflecting and rotating a shape.

Resources

- Text, Cambridge Primary Mathematics.
    1. Learner's Book
    2. Challenge

  <u>Section 1 Number :</u>
  Place value
  Ordering, comparing and rounding numbers
  Multiples and factors
  Odd and even numbers
  Prime numbers
  Multiplying and dividing by 10, 100, 1000
  Decimals and operations
  Sequences
  <u>Section 2: Measuring</u>
  Measuring length
  Time, timetables and calendars
  Area and perimeter
  <u>Section 3: Geometry</u>
  Polygons and quadrilaterals
  3D shapes and nets
  Angles in triangles
  Transformations
- Mymaths which is an online interactive teaching tool
- Further resources and links will be posted on edmodo.

Assessment

- Homework- online on myimaths or photocopied sheets from the homework book- 15%
- Quizzes/ tests - 25%
- Mid-term exam- 20%
- End of term exam-40%

Final exam

Paper 1: 40 marks – 45 minutes –(calculator not allowed)

Year 7

Subject: Science

Your final exam in June 2017 will be based on the following topics:

Biology:

- Plant organs
- Photosynthesis
- Leaf structure
- Plant transport

Chemistry:

- The particle theory
- Solid, liquid and gas
- Pressure and temperature
- Changes of state

Physics:

- Motion
- Speed
- Describing and studying an object in movement
- Converting units

Resources

Textbook – Cambridge checkpoint Science by Jones, Fellowes-Freeman and Sang.

Others – Edmodo, Powerpoints, worksheets, diagrams and notes.

Final exam

These topics will be evaluated through a single, 1 hour long, Science paper. This exam will also be an opportunity to assess the following learning objectives:

1. Knowledge with understanding
2. Handling information and problem solving
3. Experimental skills and investigations

Subject: Mathematics

Course content

Students are expected to understand the material in Cambridge Checkpoint 1. This covers each of the 19 chapters that are listed below. The syllabus expects a good command of numerical calculations including operations and BIDMAS and fractions, decimals and percentages. It begins looking at negative numbers and ratio as well. The course includes an introduction to algebra with use of equations, expressions, substituting and manipulating formulae. The geometry sections goes over symmetry, transformations, constructions , area, perimeter and volume. There are isolated topics such as probability, sets and data.

At the end of each summary is a neat chapter called 'Summary' which includes 'Check out' questions explaining what is expected. A more in depth look at each chapter can be found just before the 'Summary' chapter called 'Consolidation'. The exercise in this chapter is good practice on the material studied.

Resources

- Text, Oxford International Maths for Cambridge Secondary 1
    1. *Number and Calculation 1*
    2. *Expressions*
    3. *Shapes and Constructions*
    4. *Number and Calcuation 2*
    5. *Length, Mass and Capacity*
    6. *Representing Information*
    7. *Fractions*
    8. *Equations and Formulae*
    9. *Geometry*
    10. *Fractions and Decimals*
    11. *Time and Rates of Change*
    12. *Presenting Data and Interpreting Results*
    13. *Fractions, Decimals and Percentages*
    14. *Sequences, Functions and Graphs*
    15. *Symmetry and Transformations*
    16. *Ratio and Proportion*
    17. *Area, Perimeter and Volume*
    18. *Probability*
    19. *Sets and Venn Diagrams*
- Mymaths which is an online interactive teaching tool

Assessment

- Homework- online on myimaths - 15%
- Quizzes/ tests - 25%
- Mid-term exam- 20%
- End of term exam-40%

Final exam

Paper 1: 40 marks – 45 minutes –(calculator not allowed)

Year 9.4

Subject: Physics

- Investigation Planning
- Experimental Variables
- Understanding of Physical and Chemical hazards involved in Lab investigations and methods to minimize their risks
- Data and error analysis, quantifying evidence
- Interpreting the results of scientific investigation

The chemistry section of the grade 9 bridging course looked at some fundamental concepts in chemistry, forming the foundation of more serious chemistry. Many of these concepts were tested and investigated in the laboratory.

Subject: Chemistry

The course provides a foundation for studying Chemistry at Edexcel level in Y10.

The following concepts have been studied and will be examined.

- The structure of the atom: Protons, neutrons and electrons.
- Trends in the groups of the periodic table.
- Chemical energetics: Endothermic processes and exothermic processes.
- Metals in the periodic table: Relative reactivity toward water, oxygen and acid. Also displacement reactions.

Subject: Biology

Below are listed the skills and topics that will be assessed through the Biology portion of the Final exam:

- Food tests:
  - Iodine test
  - Biuret test
  - Benedict test
  - Emulsion test
- Investigating an enzymatic reaction (specific example of the catalase)
- Data analysis
- Criticizing and improving an investigation
- Setting up an investigation (method and apparatus)

Subject: Mathematics

Bridging course will start with fundamental topics of IGCSE Number & Algebra 1: Firstly focus will be on learning practical arithmetic and numbers system like arithmetic, number facts and sequences, approximations and estimation, standard index form, ratios & proportions, percentages, speed, distance and time, calculator based exercises. After that, students will be taught basic algebra i.e. negative numbers, directed numbers, formulae, brackets and simplifying. Afterwards students will learn linear equations, problems solved by linear equations, simultaneous equations, problems solved by simultaneous equations, factorizing, quadratics equations, problems solved by quadratic equations.

Resources.

1. Text, Oxford Extended Mathematics for Cambridge IGCSE;
2. Section 1, Number (1.1 – 1.8) – all
3. Section 2, Algebra 1 (2.1 – 2.10) – all
4. www.myimaths.com for online h/w's.
5. Further resources and links will be posted on www.edmodo.com

Assessment.

- Chapter / Unit Tests (CT/UT) – 20%
- Home works (at edmodo + www.myimaths.com) [HW's] – 30%
- End of 'Bridging Course' Exam – 50%

Note : End of 'Bridging Course' exam will cover 30% of year 9 topics (from previous knowledge) and 70%of IGCSE Ext. Maths, Units 1(Number) & 2 (Algebra), learnt during BC.

BC Report:

Unit Tests = 20%

H/W's = 30%

Annual Exam = 50%

Aggregate Mark = 100%

Topics for Annual Test

1. Section 2, Expressions and formulae – all
2. Section 8, Equations and inequalities – all
3. Section 9, Geometry – all
4. Section 13, Ratio and proportion – all
5. Section 14, Sequences, functions and graphs – all
6. Section 15, Transformations – all
7. Section 17, Area, perimeter and volumes – all
8. Section 18, Probability-all

30%

IGCSE Content

- Section 1, Number (1.1 – 1.8) – all
- Section 2, Algebra 1 (2.1 – 2.10) – all

70%