



## **Mathematics and Numeracy Policy**

### **Aims**

This policy statement outlines the purpose, nature and management of the mathematics taught and learnt in the Annex School. Numeracy is included in this policy as it forms an integral part of Mathematics.

### **Definition**

Mathematics is a way of communicating numerical information. It is a medium for ideas, theories, and concepts to be explained, explored, and developed. Through Mathematics, relationships with numerals can be expressed by testing formulas, hypothesis, and identifying patterns.

Numeracy is a proficiency that involves confidence and competence with numbers and measures. It requires an understanding of the number system, a repertoire of computational skills, with an inclination and ability to solve number problems in a variety of contexts. Numeracy demands a practical understanding of the ways in which information is gathered by data collection, data processing, and measuring. This information can be presented using graphs, diagrams, charts, and tables.

Teachers and Learning Support Assistants within the school should aim to become familiar with correct mathematical language, notation, conventions, and techniques. It is expected that all staff encourage students to use mathematical terms correctly.

### **Subject delivery and procedures**

Numeracy is embedded into Mathematics at the Annex School. The students are taught useful and productive skills from the Functional Skills Learning Model.

The Annex School is committed to raising the standards of numeracy to all of its students, so they develop the ability to understand basic Mathematics. Teaching

functional skills increases confidence so that students can confidently manage the demands of a future in further education, employment, and adult life.

Our aims in teaching mathematics this way is that all students will:

- Become numerate and approach mathematical problems with confidence
- Develop the skills which are necessary to meet the demands of adult life
- Develop the ability to think logically and clearly
- Use mathematical language effectively and correctly
- Develop positive attitudes to mathematics; recognising that what they learn can be both useful and enjoyable
- To be able to use and apply the skills in other subject areas.

The Annex School Mathematics lesson has a 45-minute duration and is delivered over 2 lessons per week. All lessons consist of a starter, main activity, and a plenary with mental maths being a regular feature. The students are also given project work throughout the term which incorporates the skills they have learned.

We are aware the time given solely to Mathematics is less than the QCA recommended allocation and for this; there is a plausible reason. The Asdan learning program has a dedicated Number Handling Module which the students work towards. Mathematics is also embedded within other taught subjects such as: Art (Geometrics) and Geography (Data handling and interpretation).

At the Annex School we have designed a program of Mathematical learning that will benefit our student's ages and ability levels. Students are encouraged to learn at a pace they are comfortable with whilst ensuring the following criteria are met:

- Develop accuracy through verbal and written communication
- Improve concentration
- Show commitment and dexterity
- Develop project skills using kinaesthetic learning

- Develop confidence in mental ability
- Be enthusiastic during individual, personalised learning.

## **Learning Modules**

Functional Skills offer a more comprehensive and fulfilling method of learning Mathematics. The students can see realistic opportunities to achieve worthwhile results and qualifications.

Students study the following applications in accordance with Functional Skills Levels:

- The 4 operations – Addition, subtraction, multiplication and division
- Shape, area, space and measurement
- Handling, processing, and displaying data
- Written problem solving
- Basic fractions, percentages, and equations.

All Annex School students use a variety of recognised maths resources to prepare them for Edexcel examinations. The Teacher will enter a student for the appropriate accredited examination when they are academically and psychologically ready. Edexcel have a rolling examination entry format which means an examination can be applied for 1 month in advance. This follows an ascending system as follows:

- Functional Skills Entry level 1, 2, and 3.
- Functional Skills Level 1
- Functional Skills Level 2

Functional Skills Level 2 and GCSE are available to advanced students. This is generally offered in support to further education courses undertaken at college.

## **Planning**

At the Annex School we recognise the student's varying learning styles, preferences, and abilities. Therefore by understanding individual needs we are able to provide learning to students who will develop using visual, auditory and kinaesthetic learning.

Many students benefit from a computer maths learning program (Number Shark) as it offers additional assistance with the more challenging mathematical processes.

Additional after school tuition is available to those students who need extra assistance. We currently have 2 students who are benefitting from this.

### **Assessment**

Functional Skills learning allows for a variety of assessment practices to benefit both teachers and students such as:

- Verbal questioning and reasoning
- Observation of students whilst working in class
- Marking students work
- Through planned assessment activities linked to key objectives.
- Informal assessment which takes place continuously with the teacher - Accurate records, daily lesson plans, monitoring achievements exceeded/not exceeded.
  - Homework set on a weekly basis.

Students are encouraged to be actively involved in self- assessments and peer assessments. This promotes awareness of an individual student's errors and achievements thus building confidence.

Students are expected to take a practice test at the end of each term to assess and chart their progress. This enables the teacher to gain a better knowledge and understanding of individual strengths and weaknesses in mathematics.

### **Social, Moral, Spiritual and Cultural Development**

The social development of students is addressed by engaging them in a variety of tasks, projects, and games. These collaborative activities stimulate discussion and conversation between students. Moral development is monitored by exploring the methods used by students to address mathematical problems.

Spiritual development may be represented when experimenting with the relationship between patterns within mathematics, as this can inspire a sense of wonder and awe. This connection to science and art means that mathematics can be enlightening to the mind.

Mathematics can 'bridge the gap' for students with English as an additional language who have a previous knowledge of written numbers and symbols. They can use Mathematics as communication in the early days of integration into an English speaking classroom.

### **Monitoring, evaluation and review**

The implementation of this policy is the responsibility of all teaching staff. The policy is overseen and monitored by the Head teacher.

Medium term plans are submitted to the Head teacher at the start of each new term.

**This policy will be reviewed by the head teacher on an annual basis 2020/21.**

**Fenella J. Richardson**

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