

## **Mathematics at Sir Charles Parsons School**

Mathematics delivered at SCP follows the units of study outlined in the National Curriculum. Units of study are from the relevant Key Stage but highly adapted and differentiated to meet the needs of all our learners.

The delivery of maths at SCP aims to ensure all learners have the opportunity to develop mathematical knowledge and skills to enable them to understand the world around them and solve problems in their everyday lives.

The maths curriculum offers opportunities to develop a sense of curiosity to ensure that the students enjoy the subject. We want the students to see that maths is an interconnected subject and to make connections across different curriculum areas to develop their mathematical fluency and support real life application of their acquired skills and knowledge.

Most learners will develop their knowledge and problem solving skills in relation to numbers (counting, reading, writing, ordering, comparing); basic calculation skills (addition, subtraction, division, multiplication); measures (time, money, measurement); geometry (shape, position, direction) and basic statistics.

The Maths curriculum is highly differentiated to meet the needs of learners within the seven aspirational pathways. Outcomes, therefore, for students will differ according to the pathway they follow.

The intent/implementation and impact in the maths curriculum is designed and developed with each pathway in mind.

### **Red/Orange/yellow pathways:**

#### **Intent:**

- Develop understanding and skills within number and calculation
- Develop understanding and skills within the areas of shape, space, measure and statistics
- Students will make progress with their mathematical problem solving skills
- Students will develop a broader mathematical vocabulary
- Students will develop functional numeracy skills which they can apply to everyday life
- Students will make progress in developing skills to support management of their own financial affairs in the future

- Students will make gains in accreditation.
- Students will be self-directed learners.
- Learners who are empathetic and understanding.
- Develop communication, writing and numeracy skills.

### **Implementation:**

- Led and overseen by the curriculum lead for mathematics
- Subject specific learning
- Delivery of a progressive curriculum
- Mathematics is taught as a termly topic focussing upon knowledge and skills stated in the national curriculum
- All learning is enhanced by revisiting prior knowledge
- The school guidance template for lesson planning structure ensures students are supported to review, consolidate and build upon prior knowledge.
- Key Stage 3 is taught in termly units, these are repeated yearly
- Years 7 and 8 have additional numeracy 'topic' based lessons as part of the recovery curriculum and to promote mathematical fluency.
- Key Stage 4 is taught via the AQA entry level certificate in mathematics (AQA ELC)
- Learning is supported by knowledge organisers to support students retention of new facts and vocabulary within their long term memory
- Multi- sensory environments are created (music, artefacts, video, audio)
- Learning is supported by visual aids; Makaton, PECS, board maker symbols, photographs, written word.
- Collaborative learning, practical based.

### **Impact:**

- Made progress in their knowledge and understanding of number and calculation
- Made progress in their knowledge and understanding of shape, space, measure and statistics
- Have developed mathematical problem solving skills
- Made progress in their acquisition and understanding of mathematical vocabulary
- Acquired functional numeracy skills which they can apply to everyday life

- Made progress in developing skills to support management of their own financial affairs in the future
- Made gains in accreditation
- Self-directed learners
- Learners who are empathetic and understanding
- Made progress in developing their communication and writing skills.

### **Green/blue pathways:**

#### **Intent:**

- Develop curiosity about maths concepts in the world around them e.g. numbers, counting, operations, shapes, position, direction, time and money.
- Develop simple problem solving skills using thinking and sorting skills
- Develop an understanding of basic mathematical words
- Develop basic numeracy skills to develop awareness of using maths in their everyday life
- Development of self – awareness
- Can communicate wants and beliefs effectively
- Develop communication and literacy skills
- Develop thinking and sorting skills
- Students will make gains in accreditation.

#### **Implementation:**

- Led and overseen by the curriculum lead for mathematics
- Subject specific learning
- Delivery of a progressive curriculum
- Mathematics is taught as a termly topic focussing upon knowledge and skills stated in the national curriculum
- All learning is enhanced by revisiting prior knowledge
- The school guidance template for lesson planning structure ensures students are supported to review, consolidate and build upon prior knowledge.
- Key Stage 3 is taught in termly units, these are repeated yearly
- Years 7 and 8 have additional numeracy ‘topic’ based lessons as part of the recovery curriculum and to promote mathematical fluency.
- Key Stage 4 is taught via the AQA unit award scheme.

- Learning is supported by knowledge organisers to support students retention of new facts and vocabulary within their long term memory
- Multi- sensory environments are created (music, artefacts, video, audio)
- Learning is supported by visual aids; Makaton, PECS, board maker symbols, photographs, written word.
- Collaborative learning, practical based.

### **Impact:**

- Made progress in their awareness and understanding of maths concepts in the world around them e.g. numbers, counting, operations, shapes, position, direction, time and money.
- Have developed simple problem solving skills using thinking and sorting skills.
- Learners can use basic mathematical words
- Acquired basic numeracy skills which they can apply to everyday life
- Made progress in their communication and literacy skills
- Made gains in accreditation (AQA Unit Award Scheme)

### **Indigo/Violet pathways:**

#### **Intent:**

- Develop sense of self awareness
- Develop awareness of key people and places around them
- Develop an interest in the people and world around them
- Develop an ability to gain attention of others
- Develop a recognised means of expressing wants/needs
- Develop patience and resilience to persevere with waiting for requests to be responded to/understood
- Development of engagement; develop engagement areas of; exploration, realisation, anticipation, persistence and initiation.

## **Implementation:**

- Highly differentiated curriculum focussed upon developing individual skills within a medium of a topic.
- Encounter mathematical experiences with opportunities to develop skills of exploration, realisation, anticipation, persistence and initiation.
- Encounter multi - sensory activities (develop different senses; taste/smell/touch, vision and hearing).
- Encounter range of sounds/textures/tastes/smells
- Encounter a range of creative activities, role play and sensory stories.
- Led and overseen by the curriculum lead for mathematics
- Repetition of activities to sustain individual pupils achievements
- Mathematics is taught as a termly topic focussing upon knowledge and skills stated in the national curriculum
- The school guidance template for lesson planning structure ensures students are supported to review, consolidate and build upon prior achievements.
- Key Stage 3 is taught in termly units, repeated yearly
- Key Stage 4 is taught via accredited units (AQA Unit Award Scheme)
- SMSC are threaded through the curriculum

## **Impact:**

- Developed sense of self awareness
- Developed awareness of key people and places around them
- Developed an interest in the people and world around them
- Developed means of communication (to gain attention/express wants/dislikes).
- Developed patience and resilience to persevere with waiting for requests to be responded to/understood
- Made gains in their development within areas of engagement; exploration, realisation, anticipation, persistence and initiation.
- Made progress towards outcomes identified with their education and health care plans.