CURRICULUM – CONSTRUCTION

Intent, Curriculum Map & Age Related Expectations

Abstract

Students are carefully provided with feedback on their learning to enable them to improve.
They gain the knowledge leading onto the skills that are necessary to enable them to become successful lifelong learners.

CGR

Southchurch High School

Contents

Whole School INTENT

Southchurch students embrace learning opportunities.

INTENT, IMPLEMENTATION & IMPACT

INTENT • Southchurch students gain an insight to the construction industry to open opportunities and develop practical independence.
IMPLEMENTATION • Sequencing of the curriculum • Adaptive teaching (to take into account of what the learners know and don't know) • Extending opportunities for extracurricular
IMPACT • All students will achieve their potential with altered trajectories

CURRICULUM MAP

<table>
<tr><th></th><th colspan="14">Autumn Term</th><th colspan="12">Spring Term</th><th colspan="13">Summer Term</th></tr>
<tr><th></th><th>1</th><th>2</th><th>3</th><th>4</th><th>5</th><th>6</th><th>7</th><th>8</th><th>9</th><th>10</th><th>11</th><th>12</th><th>13</th><th>14</th><th>15</th><th>16</th><th>17</th><th>18</th><th>19</th><th>20</th><th>21</th><th>22</th><th>23</th><th>24</th><th>25</th><th>26</th><th>27</th><th>28</th><th>29</th><th>30</th><th>31</th><th>32</th><th>33</th><th>34</th><th>35</th><th>36</th><th>37</th><th>38</th><th>39</th></tr>
<tr><td>Yr10</td><td colspan="4">• Introduction to qualification

• Unit 1 (1.1)–Introduction to the construction sector -Introducing:
• Buildings and Structures
• Infrastructure and civil engineering products

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 1

FEEDFORWARD ASSESSMENT</td><td colspan="4">• Unit 1 (1.1)-Introduction to the construction sector -Introducing:
• Building services engineering
• Professional and managerial roles

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 1

FEEDFORWARD ASSESSMENT</td><td colspan="3">• Unit 1 (1.2)-The Built Environment life cycle:
• Raw material extraction
• Manufacturing
• Construction

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 1

FEEDFORWARD ASSESSMENT</td><td colspan="3">• Unit 1 (1.2)-The Built Environment life cycle:
• Operation and Maintenance
• Demolition
• Disposal, re-use or recycling

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 1

FEEDFORWARD ASSESSMENT</td><td>AP1</td><td colspan="5">• Unit 1 (1.3) –Types of building and structure:
• Different forms of infrastructure construction
• Different forms of low-rise buildings

FEEDFORWARD ASSESSMENT

• Unit 3 –Review sample assessment material and note the scope of areas of content appropriate for the selected trade-based task -trade based task 2

• Unit 3 –learning activities to cover areas of content for trade-based task 2

FEEDFORWARD ASSESSMENT</td><td colspan="4">• Unit 1 (1.4) – Technologies and materials:
• Main elements and components of low-rise buildings
• Main materials involved in constructing walls and installing building services
• Main materials involved in fitting roofs and finishing interiors
• Renewable technologies and materials

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 2

FEEDFORWARD ASSESSMENT</td><td colspan="4">• Unit 1 (1.5) Building structures and forms:
• Cellular constructions, rectangular and portal frames
• Heritage and traditional methods

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 2

FEEDFORWARD ASSESSMENT</td><td colspan="3">• Unit 1 (1.6) – Sustainable construction methods:
• The benefits of sustainable construction
• Pollution and the preservation of the natural environment
• Sustainable materials used to create building frames, walls and roofs
• Waste disposal, re-use and recycling

FEEDFORWARD ASSESSMENT

• Unit 3 –learning activities to cover areas of content for trade-based task 2

FEEDFORWARD ASSESSMENT</td><td colspan="4">• Unit 1 (1.7) –Trade employment and careers:
• Bricklaying, stonemasonry, plastering, carpentry and joinery
• Electrical installation, plumbing installation, pointing and decorating, flooring and tiling

FEEDFORWARD ASSESSMENT

• Unit 3 –Review sample assessment material and note the scope of areas of content appropriate for the selected trade-based task -trade based task 3

• Unit 3 –learning activities to cover areas of content for trade-based task 3

FEEDFORWARD ASSESSMENT</td><td colspan="5">• Unit 1 (1.8) –Health and safety:
• Risks during construction of built environment projects
• Procedures and risk assessments
• Relevant legislation
• Personal protective equipment
• Working safely with gas, water and electricity
• Working at height and in enclosed spaces

FEEDFORWARD ASSESSMENT

Unit 3 –learning activities to cover areas of content for trade-based task 3

FEEDFORWARD ASSESSMENT

Revision</td><td rowspan="2">End of Year Examination Rehearsals</td></tr>
<tr><td>Yr11</td><td colspan="8">Non-Exam Assessment (NEA)
Assessment on 3 practical skills
• Task 1
• Task 2
• Task 3(a,b&c)

FEEDFORWARD ASSESSMENT – After each task</td><td colspan="6">NEA
Assessment on 3 practical skills
Task 4</td><td colspan="7">Revision</td><td colspan="6">Revision</td><td></td><td>NEA Submission</td><td colspan="7">Year 11 - Exams</td><td colspan="5"></td></tr>
<tr><td></td><td colspan="14">Examination Rehearsal 1 - (December)</td></tr>
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KS5 Links

T level Technical Qualification in Onsite Construction qualifications and training courses | City & Guilds (cityandguilds.com)

END OF COURSE EXPECTATIONS

AO1

- Demonstrate knowledge and understanding from across the specification.

AO2

- Apply skills (including practical skills), knowledge and understanding in a variety of contexts and in planning and carrying out investigations and tasks.

AO3

- Analyse and evaluate information, making reasoned judgements and presenting conclusions.

The table below shows the weighting of each assessment objective for each unit and for the qualification as a whole:

	AO1	AO2	AO3	Total
Unit 1	24%	11%	5%	40%
Unit 3	3%	39%	18%	60%
Overall Weighting	27%	50%	23%	100%

DEPARTMENT FEEDBACK POLICY

Formative Feedback

The department will provide continuous formative feedback to students every lesson and track progress each lesson using a holistic 1-4 age related expectation grade.

The department will set topic / unit summative assessments at the end of the topic / unit at set points throughout the year. These will be marked in green pen and improvements fed back to students. These marks will go towards the holistic 1-4 age related expectations formative assessment grade.

A formative assessment data drop will be completed once per half term.

Assessment Feedback Frequency

KS3 will sit a Summative end of year assessment where the percentage achieved in the assessment will be reported to parents/carers as well as a holistic 1-4 formative assessment grade.

In KS4 Year 10 will sit two summative assessments during the year and the percentage mark of the first Assessment Point (AP1) will be reported and shared with parents/carers as well as a working at 1-9 grade. The second will be an end of year assessment mock style exam. Predictive 1-9 grades will then be calculated at the end of the year.

Year 11 will sit one examination rehearsal half way through the year in preparation for their actual exams again providing a more accurate working at grade and prediction for end of year results.

Planning for Feedback

- Feedback must be planned for using the **FEEDFORWARD ASSESSMENT** planning sheets
- This needs to be completed on a specific independent learning activity undertaken in the students' books which should happen every 6-10 lessons.
- Books should be checked at the same time for presentation with an acknowledgement to the student that you have seen their work.
- Feedback should be provided in the following lesson using DIRT (Dedicated Improvement and Reflection Time) activities.
- Red pen by the students should be used to highlight any work done during DIRT activities.

Feedback Expectations

- **Verbal feedback** - Either one to one or as a class. Misconceptions can be addressed easily.
- **Live Feedback** - The teacher gives feedback as they circulate the room. This feedback is then acted on immediately.
- **Questioning** - The teacher uses a range of questioning techniques (cold call, no opt out, say it again better etc) or mini whiteboards to check understanding.
- **Modelling** - The teacher demonstrates what success looks like and scaffolds how to get there. This can be done verbally or in a written format.
- **Visualiser** - This can be used to do a "we write" model answer, to showcase good work or to address misconceptions.
- **Whole class feedback** - After reading all the books and making notes, the teacher gives feedback on strengths, areas for improvement and misconceptions. Time is given to act on improvements.
- **Written feedback** - Teachers use individual written feedback on a specific piece of work and give students time to act on it (DIRT). The time cost here should be carefully considered.

Presentation in Books

- Books should be able to be used as **revision aids** by the students.
- Look for **common misconceptions** in all books; assessing the **quality** of the books; ensuring that **high expectations** for **presentation** are upheld and **SPAG** is addressed.
- Selective independent work will be checked using the **FEEDFORWARD ASSESSMENT** Planning sheet

NATIONAL CURRICULUM LINKS

Computer Science National Curriculum Links

Computing National Curriculum

All pupils must have the opportunity to study aspects of information technology and computer science at sufficient depth to allow them to progress to higher levels of study or to a professional career.

In construction students are taught to:

- develop their capability, creativity and knowledge using computers, digital media and information technology
- develop and apply their analytic, problem-solving, design, and computational thinking skills
- understand how changes in technology affect safety, including new ways to protect their online privacy and identity, and how to identify and report a range of concerns.

Religious Education National Curriculum Links

Agreed Syllabus for Religious Education

Religious Education in English Schools: Non-Statutory Guidance

Within the construction curriculum we focus on developing an understanding of 'worldwide' views through discussion around religious, culturial and ethical functions of buildings within the construction industry.

The demographic of our students influences how we develop our students' understanding and develop their own views of worldwide religious views to ensure that students have a balanced interpretation of different religions.

- All pupils receive RE as part of a broad and balanced curriculum at school which promotes their spiritual, moral, social and cultural development.

PERSONAL DEVELOPMENT CURRICULUM

Aims

The construction curriculum is designed to support and promote the vision of Southchurch High School, "A community of Opportunity, Learning and Aspiration". The curriculum recognises not only the importance of allowing students to flourish academically but also our wider role in preparing our students for their adult life beyond school. Our Personal Development programme is underpinned by five core pillars;

- **Equality and Diversity**
- **Cultural Capital**
- **Community and Wellbeing**
- **Careers and Employability**
- **Character Development.**

Character Development: All members of the school community (regardless of background or ability) understand, develop and demonstrate the values that underpin our student mission of a Community of Opportunity, Learning and Aspiration.

- **Community of Opportunity** – All students are supported and encouraged to perform Infront of their peers and watched with mutual respect. Students are provided with various, collaborative group tasks each lesson in which all learners are supported o engage equally and freely share their ideas and opinions.
- **Learning** – All students have equal opportunity to access the curriculum. Students are taught and placed into mixed ability classes, ensuring all students are supported with adapted practice, where necessary, to ensure curriculum access. All students are invited to an array of enrichment opportunities including; clubs, trips and visits and workshops.
- **Aspiration** – Students are encouraged to develop their love of design through careers talks, trips and external speakers. They take every opportunity within lesson to learn and take control over their own personal development.

Equality & Diversity: The construction curriculum aims to develop an understanding through the design process of showing how people of different faiths, convictions, ability, gender, heritage and ethnicity can form a successful, cohesive and happy community that draws from the best in each of us.

- Students will explore how the designing of products needs to consider the needs of different users and taking a consideration of cultural, ethical, and religious factors within the designing of new products.

Wellbeing & Community – The construction curriculum recognises the importance of our students knowing how to care for themselves both mentally and physically, whilst they also develop personal traits and virtues that will motivate and guide students with confidence and resilience.

Cultural Capital – The construction curriculum supports the school's vision in ensuring that all students gain the knowledge and cultural capital they need to succeed in life through a wealth of experiences both in and outside the taught curriculum.

- **Trips & Visits:**
  - **IPECO Careers**
  - **National Trust Heritage design**

- **Extra-Curricular:**
  - Stem Go Cart Building

- **British Values:**
  - **Individual Liberty**: Students, within the classroom, have choice over how they learn in certain aspects of the course.
  - **Mutual Respect**: Students are respectful when listening to the opinions and views of other students.
  - **The Rule of Law:** The classroom rules enable all students to develop their skills in an environment where equipment and each other's feelings are respected. The classroom rules ensure students are all responsible for the learning environment.
  - **Tolerance:** Students are tolerant of the opinions and creative ideas of each other. Students value the wide variety of cultures that we explore from all over the world and are tolerant of different faiths and beliefs in the styles we study.
  - **Democracy:** Students are all part of the learning experience and are listened to. Students assess each other's work and celebrate each other's successes. All students are granted autonomy and have the opportunity to make choices on how to develop their own creativity.

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Careers & Employability – The construction curriculum is designed to ensure students have a breadth of opportunities and experiences that our pupils can start to build their own future pathways on. Through the construction curriculum, our students are supported to develop the following skills;

- Communication
- Confidence
- Teamwork and Leadership
- Listening and Responding
- Creativity
- Critical thinking and problem solving
- Time management
- Research

Events

- Small piece trust project days
- Webinars on careers within construction

SMSC CURRICULUM LINKS

Spiritual development Through the projects we offer and the curriculum we deliver at KS4, the pupils are taught how to investigate briefs. This is focused on the functionality and the analysis of how construction processes affect the quality of our daily lives. Pupils are encouraged to develop their thinking skills and explore the wider natural world around them. They are taught to reflect upon what they see and develop ideas and solutions to problems which are both workable and innovative.
Moral development Pupils are faced with moral decisions throughout the construction process. This includes selecting materials and ways of manufacturing, identifying and meeting the needs of others, sustainability & environmental impact. They must also begin to understand the impact of new technologies and how these can often be employed to solve existing problems but sometimes also create their own moral dilemmas. The built environment lifecycle goes through the 6 stages of construction where students discuss the advantages and disadvantages within the construction industry. Within the classroom and the wider community the pupils are expected to show respect to others and take responsibility for their own actions and of those around them, taking into consideration the consequences.
Social development Pupils are often asked to make products to meet the needs of users or clients by receiving valuable feedback from others. For this to be successful pupils must show mutual respect when working collaboratively. Peer evaluation of designed and made items plays a big part in construction work as this is a vital mechanism for progress. Pupils learn to articulate their thoughts and feelings about their own and other's' work. To do this they need to take criticism without offence and provide feedback which is carefully considered and constructive.
Cultural development Pupils are taught that all their construction work should be sensitive to needs and beliefs of different backgrounds, ensuring all imagery, text and products won't cause offence. Pupils must consider how ideas and products can impact the world around them.

Equality, Diversity and Inclusivity Links

Aims Within the different projects we look to ensure that there is a broad range emphasising equality, diversity and inclusivity. We ensure that all students work together within pairs, groups and teams to strengthen professional relationships within the classroom and promote an acceptance for all students and the wider world around them.