

# IDSALL SCHOOL

## Construction Curriculum



### **Our Vision for Construction:**

Considering a career in construction? The industry needs you. Britain is expected to require hundreds of thousands of new construction workers in the next few years, with the UK Government funding major regeneration projects nationwide and pledging to build 300,000 new homes each year. If you are thinking of pursuing a pathway into the world of building, design and surveying, our Construction and the Built Environment course will provide you with a broad foundation of the key skills and knowledge you will need for your future in this field

### **Topics you will study:**

**Year 10:** Students will study a bespoke course designed by the school to work as an introductory course for all those interested in construction, it will give the students the opportunity to try many different trades from brickwork to carpentry, plastering and painting, they will also complete 2 mandatory units in designing a 4 year plan which will help them see out their Idsall journey well in to sixth form and an organisational unit which will help develop the learners skills in many different key areas which will help them be prepared for school and in the working environment.

**Year 11:** In year 11 students will have by now made career choices and planning for the future. Year 11 students will study a level 1/ 2 first award in construction and the built environment. This is worth a grade 4 in GCSE and will be graded pass, merit, distinction. Students could leave with a level 2 award if they work hard, they will be expected to sit a written exam and make a trade choice for them to study, this could be brickwork, carpentry, painting or plastering. Students will also learn key skills which will link directly in to their GCSE core subjects in science and maths of construction, learners will be able to see the fun side of maths and science! Another key unit students will complete will be construction drawing skills where students will be able to design bespoke structures and measure floor plans.

**Year 12:** Students in year 12 will be career ready and make a trade based on their experience and skills set. Students can study a diploma in either brickwork, carpentry, painting, plastering or maintenance operations. Whichever course students decide to choose they will cover all aspects of the trade. Bricklayers will build basic structures, arches, cavity walls and windows and openings, carpenters will build basic joints and progress on to stud work, framework doors, windows and advanced joints, painters will be given large projects where deadlines will need to be met and plasterers will board and skim a whole room which has been built by the carpenters in specialised area of the centre.

**Year 13:** Students in year 13 can study a level 3 qualification which is equivalent to an A-level in construction. Topics can be chosen by the student to allow them the opportunity to select the units that they think will benefit them in getting a job in construction. This could be in architecture, surveying or construction management.

# IDSALL SCHOOL YEAR 10

## Construction Curriculum



### **Our Vision for Construction in year 10:**

The level 1 introductory course in construction is a bespoke certificate designed by the construction team to help students have a better understanding in construction and to allow students the opportunity to be fully engaged and motivated while learning key skills.

The course is designed to challenge, engage and encourage learning and to build up confidence in those who lack confidence in their abilities and give them equality of learning with their peers.

The course is differentiated and blended to support all aspects of learning and is open to all students who are interested in construction or benefit from a more hands on approach to education.

### **How are units marked?**

Units are marked pass, merit or distinction at level 1

### **What will I learn?**

You will learn brickwork skills, carpentry skills, painting, plastering, students who excel at one specific trade will be challenged and expected to work to more challenging units which will help them make those career choices and close that gap from KS4 to KS5. We have witnessed year 10 students complete walls specifically designed for level 2 students!

### **Will there be mandatory units?**

There are 2 mandatory units

Students are expected to design and create a 4 year plan, which helps them to make choices and allows them to shape their own career path with guidance from the construction team.

This can change over the 4 years and students will need to decide when to change their plan and create another pathway to match their skills and aspirations.

The final mandatory unit students will learn those key skills of organisation, not only for school but for the real world, Students will understand the benefits of time keeping, hard work and attendance and having a positive attitude.

**The Big Picture-Intent:**

Students choose construction as an option in year 9. Students learn key skills in construction and develop a better understanding of the construction industry. Construction is a practical subject where students will be able to demonstrate strong skills and hopefully make a potential career choice in one specific trade. The trades focused on in this course are brickwork, plastering, carpentry and painting and decorating.

During one of the first units the students will create a 4 year personal progression plan which they will follow from years 10-13, the centre has created a scheme where the learners will create a 4 year plan based from year 10 to 13, this allows the student the opportunity to reflect and change the plan as they see fit giving them control of their choices

Students will learn key skills in practical lessons and be able to demonstrate competency in assessments in different construction trades, the plan this would be for them to find a niche in one of the trades and use that as a focal point going forward. They will learn knowledge and understanding in health and safety, tool use and different materials, they will also understand what a risk assessment is and how to look after tools, equipment correctly.

**Implementation:** Construction is delivered over 4 lessons per week

Students will also complete construction English and Maths which will help them in core subjects and how to organise themselves effectively not just in construction lessons but in every day life.

The course is designed to create a positive “real life” learning environment and is delivered in a purpose built construction centre on the school grounds.

**Units covered:**

During one of the first units the students will create a 4 year personal progression plan which they will follow from years 10-13, the centre has created a scheme where the learners will create a 4 year plan based from year 10 to 13.

**Key Summative Assessments:**

**At the end of every unit students will need to take an assessment to demonstrate skills, knowledge and ability.**

**Autumn Term Assessments:**

**4 year plan  
Brickwork/carpentry**

**Spring Term Assessments:  
Plastering/painting**

**Summer Term Assessments:  
Students will build up on skills by being challenged on prior learning**

**Impact:** Students will develop a thorough understanding of the different paths in construction. They will begin to consider and plan for a career in construction. Students will understand the theory which underpins the skills in construction that they are developing.

Units mandatory	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	<b>Prior Learning</b>	<b>Future learning</b>
<b>A1 Being organised</b>                     <b>A2 Personal progression plan</b>	<ul style="list-style-type: none"> <li>• Students will be required to demonstrate and evidence organisational skill.</li> <li>• Students will be expected to show understanding of the importance of being organised now and the benefits for the future</li> <li>• Students will need to recognise and understand the process of planning out the next 4 years of their academic lives. It is vital students approach this unit in an adult manner and plan carefully.</li> <li>• Research tasks planning for the future, decisions to be made by the student, staff to help and support decisions and choice</li> </ul>	<ul style="list-style-type: none"> <li>• Timekeeping, Organisational skills, introduction to key skills needed to succeed at school and in the workplace.</li> <li>• How to plan and complete a 4 year learning plan.</li> <li>• Understanding of careers in construction.</li> </ul>	<ul style="list-style-type: none"> <li>• Students should already be actively doing this as a life skill, it is up to students with support of staff to understand the importance of timekeeping, politeness, attendance</li> <li>• N/A for this unit, however students may already have an awareness of which career path they wish to choose.</li> </ul>	<ul style="list-style-type: none"> <li>• This skill should set the foundation for what should be a basic instinct for their future lives, skill is required in every day to day task</li> <li>• This unit will be the foundation of what will be the future course of students theoretical and practical learning. The plan will include a start and end goal. Students will need to adapt the plan in as their skills and aspirations develop.</li> </ul>

Units mandatory	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<p><b>CON 6- Building a simple wall</b></p> <p><b>CON 7- Making carpentry joints</b></p>	<ul style="list-style-type: none"> <li>• Students will learn different bonds in brick laying, tools and materials.</li> <li>• Practical understanding and implementation of the key health and safety standards needed to be a bricklayer.</li> <li>• Students will be questioned throughout tasks and will be expected to complete relevant paperwork to test understanding</li> <li>• Health and safety, team work, communication wood work skills and techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Health and safety, team work, communication bricklaying skills</li> <li>• Students will be able to explain different joints used in carpentry processes and be able to name different wood used for carpentry tasks and the relevance of sustainability.</li> </ul>	<ul style="list-style-type: none"> <li>• No prior learning due to age, however prior learning will be shown over a period of time bricklaying</li> <li>• Unit can be linked direct to early design skills used in technology, prior learning would be tool and material identification along with the ability to undertake simple halving joints</li> </ul>	<ul style="list-style-type: none"> <li>• Students could progress onto more advanced bonds learned by level 2 learners, closing the gap from KS4 and KS5</li> <li>• Students who demonstrate strong skills can be challenged by attempting harder joints associated with level 2 carpentry, more evidence of closing gaps between KS4 and KS5</li> </ul>

Units mandatory	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	<b>Prior Learning</b>	<b>Future learning</b>
<p><b>CON 11-Decorating an inside wall</b></p> <p><b>Developing Plastering skills</b></p>	<ul style="list-style-type: none"> <li>• Health and safety, communication, teamwork, decorating skills</li>   <li>• Health and safety, communication, teamwork, hand to tool techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Students will learn the use of different paints from water-based to oil based and be able to give a good use for both, students will also be able to explain the purpose of wall papering and describe tools and different techniques</li>   <li>• Students will be able to demonstrate the use of tools and identify the key differences between plastering, rendering.</li> </ul>	<ul style="list-style-type: none"> <li>• Could be from watching or helping parents decorate/ paint at home.</li>   <li>• No prior learning will be available at this stage unless students have done this at home with parents.</li> </ul>	<ul style="list-style-type: none"> <li>• Students could be challenged and attempt level 2 units which will benefit them when they go on to KS5</li>   <li>• Students could follow this up in level 2 and look to make a career out of it, students will be given the opportunity to hone in on fine motor skills and practise hand and eye coordination</li> </ul>

# IDSALL SCHOOL YEAR 11

## Construction Curriculum



### **Our Vision for Construction in year 11:**

Year 11 students will study a level 1/ 2 first award in construction and the built environment, this course is designed to allow students to hone in on one particular trade, whether that be brickwork, painting or carpentry, they are also expected to complete 2 mandatory units and take a written exam in construction technology.

### **Units studied:**

- Construction technology
- Construction design (Internally and externally moderated coursework)
- Construction in Practice - Brickwork/ carpentry / Painting (only one can be chosen)
- Science and mathematics of construction

### **How are units marked?**

Units are marked pass, merit or distinction at level 1 or level 2

### **What will I learn?**

Other than practical skills a range of knowledge which will open up doors for other professional roles in construction.

### **How will I be graded?**

You will achieve either a level 1 award or a level 2 award depending on your overall score per unit (majority of students achieve level 2)

**The Big Picture- Intent:** In year 11 students will build upon the foundation of knowledge and skills that they began to develop in year 10 and will have chosen the trade they want to follow and this will be the trade they will continue in year 11. By the end of year 11 students will have achieved a level 2 and begin planning for KS5. Students will begin to look at further methods of construction with a focus on the design and technology of construction.

**Implementation:** Construction is delivered over 4 lessons per week

The course is designed to create a positive “real life” learning environment and is delivered in a purpose built construction centre on the school grounds.

Students will focus on acquiring and developing the specific theoretical and practical skills from their focus trade.

Students will also learn life skills in maths and science which will support their construction focused learning.

**Key Summative Assessments:**

Mock exams will be sat in NOV and DEC real exam will be in Jan. All other assessments will take place at the end of unit

**Autumn Term**

Construction technology  
Construction design

**Spring Term**

Brickwork/ carpentry

**Summer term**

Science and maths of construction

**Impact**

This qualification will broaden learners knowledge of construction and focus on the more technical roles which will help them when they need to read plans, measure, mark and build. The use of sustainability in this unit will be key going into KS5 or into an apprenticeship. This qualification helps students make that vital decision on their future career choices. Students will be able understand construction drawings giving them the opportunity to explore other roles within the industry and skills needed to thrive in construction



Units	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	<b>Prior Learning</b>	<b>Future learning</b>
<b>Construction technology</b>	<ul style="list-style-type: none"> <li>• Research, questioning, understanding knowledge based tasks</li> <li>• Understand the methods used in constructing several different types of foundation and the safety aspects of supporting excavations while employees work within them</li> <li>• How to remove water from excavations</li> <li>• Understand the need for provisions to stop damp rising, and the construction associated with the superstructure of a building</li> <li>• Understand the purpose of sustainable construction.</li> </ul>	<ul style="list-style-type: none"> <li>• This component will develop knowledge and understanding of processes, terminology and technology used in the construction of the built environment</li> <li>• How to set up a site- examining the information that must be completed before starting work, along with the infrastructure that will need to put in place to run the job efficiently and safely.</li> <li>• What sustainable construction is and how it is achieved.</li> <li>• How walls, floors, roofs and external works are constructed. Be able to name each component part, along with its functions.</li> <li>• This will change with each different type of construction method that can be employed in a building.</li> </ul>	<ul style="list-style-type: none"> <li>• Prior to taking written exam students will attempt two mock tests</li> <li>• Students will use prior knowledge of materials and sustainability and link this direct in to this written, task.</li> </ul>	<ul style="list-style-type: none"> <li>• The knowledge gained from this unit will benefit the students going in to KS5 as the units are designed to cover more technical outcomes associated with level 2</li> <li>• This unit will help learners with many different units at level 2 and be a direct link to more advanced level 3 units.</li> </ul>

# Construction Technology: Module Assessment

## Assessment objectives:

- **AO1** Demonstrate knowledge of work of the construction industry and the different technology used in low-rise construction projects
- **AO2** Demonstrate understanding of work of the construction industry and the different technology used in low-rise construction projects
- **AO3** Be able to make connections between different construction technologies to ensure appropriateness of low-rise construction projects in different scenarios
- An exam worth 60 marks will be completed under supervised conditions. The supervised assessment period is 1.5 hours)

Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<b>Construction design</b>	<ul style="list-style-type: none"> <li>• Research, questioning, understanding knowledge based tasks</li> <li>• Understand clients' needs and develop skills in producing building design briefs and sketches that consider construction constraints.</li> </ul> <p>Be able to graphically communicate the design of a low-rise building:</p> <ul style="list-style-type: none"> <li>• Development of sketching techniques</li> <li>• Generation of sketch ideas in response to client needs</li> </ul>	<ul style="list-style-type: none"> <li>• Students will understand technical drawings, scales and plans and will be able to create and design a house using scaled down drawings, design plans and different points of view.</li> <li>• The differences and key external distinguishable features for the different styles of building use</li> <li>• The design requirements for the client's environmental and sustainable objective, which may exceed statutory requirements.</li> <li>• Other influences and constraints on design, which include: <ul style="list-style-type: none"> <li>➤ Budget</li> <li>➤ Site</li> <li>➤ Building</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Prior to taking written exam students will attempt two mock tests</li> <li>• Students will use prior knowledge of materials and sustainability and link this direct in to this written, task.</li> </ul>	<ul style="list-style-type: none"> <li>• The knowledge gained from this unit will benefit the students going in to KS5 as the units are designed to cover more technical outcomes associated with level 2</li> <li>• This unit will help learners with many different units at level 2 and be a direct link to more advanced level 3 units.</li> </ul>

Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<ul style="list-style-type: none"> <li>• Scientific and Mathematical Applications for Construction</li>   <li>• Exploring Carpentry and Joinery Principles and Techniques</li> </ul>	<ul style="list-style-type: none"> <li>• Physics, maths skills in construction.</li>   <li>• Wood work skills, combined with health and safety And risk assessments</li> </ul>	<ul style="list-style-type: none"> <li>• Students will be able to calculate foundations, areas and the costings of materials, they will also be able to link direct to their learning hooks law and the weight of materials and dead loads in buildings.</li>   <li>• Prior knowledge will help the carpenters with this unit especially the halving joints and be able to make a frame to meet the criteria</li> </ul>	<ul style="list-style-type: none"> <li>• Prior Maths and science skills will be key here to help the learners succeed</li>   <li>• Prior learning from year 10 will be evident in the building process of this unit.</li> </ul>	<ul style="list-style-type: none"> <li>• For those looking to go into a more technical role in construction this will directly link in with their level 3 work</li>   <li>• This unit will close the gap and allow students to advance in carpentry skills which will directly link them for a level 2 course in KS5.</li> </ul>

# Construction Design: Module Assessment

## Assignments:

Pearson sets the assignments for the assessment of this component.

The assignment for this component consists of two tasks.

- **Task 1:** Design brief (synoptic) Learning outcome A: Understand the needs of a client and the constraints on design when designing a low-rise building
- **Task 2:** Concept sketches (synoptic) Learning outcome B: Be able to graphically communicate the design of a low-rise building

In response to Task 1, learners will use their applied knowledge and understanding throughout this component in addition to the synoptic elements to produce a client brief by analysing information presented in a brief.

In response to Task 2, learners will demonstrate practical skills in sketching, projection and communication that have been developed in this component. They will produce a range of 2–3 sketches to clearly communicate a design solution that adheres to the design constraints and client information given to learners.

- The assignment will take 2 hours of monitored preparation and approximately 6 supervised hours to complete.
- The assignments will be marked by centres and moderated by Pearson.
- Assignments for this component will be made available in October and then February of each year through the secure area of the website.
- Learners must use the Pearson-set Assignment to provide the required evidence to achieve this component.

Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<p><b>Construction in Practice</b></p> <ul style="list-style-type: none"> <li>• <b>Exploring Brickwork and Blockwork Principles and Techniques</b></li> <li>• <b>Exploring Carpentry and Joinery principles and technology</b></li> <li>• <b>Exploring decorating principles and technology</b></li> </ul>	<p><b>Risk assessment:</b></p> <ul style="list-style-type: none"> <li>• How to make recommendations in order to minimise risk to people in their practical learning environment and produce a revised risk rating that shows their controls have brought the risk rating down to an acceptable level.</li> </ul> <p><b>Measuring, marking and setting out: interpretation of construction drawings</b></p> <ul style="list-style-type: none"> <li>• develop knowledge and understanding of the uses of different measuring, marking and setting-out tools used in the industry to construct a practical outcome</li> <li>• demonstrate safe working and vocationally correct techniques when using these tools to accurately measure, mark and set out.</li> <li>• understand how to correctly interpret construction specifications and drawings in order to measure, mark and set out materials to construct a practical outcome</li> </ul>	<ul style="list-style-type: none"> <li>• What a risk assessment is and how to use them in a practical learning environment</li> <li>• Specific risk assessments for brickwork, carpentry and joinery and decorating</li> <li>• Measuring, marking and setting-out tools for specific trades</li> <li>• Vocational conventions in brickwork, carpentry and joinery and decorating</li> </ul>	<ul style="list-style-type: none"> <li>• Students will continue the progress they made in year 10 and expand this by working on more advanced skill in their chosen trade.</li> </ul>	<ul style="list-style-type: none"> <li>• Direct link to KS5, students will already be working at this level making the process of progression to post 16 easier and more smoother</li> <li>• Students going on to do a level 2 diploma in painting will already have the skills needed to progress quickly in to the KS5 frame work.</li> </ul>

Units	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<b>Construction in Practice</b>	<p><b>Accuracy in construction</b></p> <ul style="list-style-type: none"> <li>Learners will be able to demonstrate vocationally correct techniques for accuracy in the construction of the practical outcome to maintain their accuracy during construction</li> <li>Tools and materials: considerations of materials for Brickwork and Carpentry and Joinery</li> </ul> <p><b>Dimension checks on final outcome</b></p> <ul style="list-style-type: none"> <li>demonstrate vocationally correct techniques to accurately measure the dimensions of their constructed outcome</li> <li>Demonstrate applied knowledge to confirm whether their constructed outcome is within the specified tolerance for each measurement in B2</li> </ul>	<ul style="list-style-type: none"> <li>Vocationally correct techniques for accuracy in the construction of the practical outcome</li> </ul>		

# Construction in Practice: Module Assessment

## **Learning outcomes:**

- A - Be able to understand hazards and risk for safe production of a practical construction outcome
- B - Be able to produce a practical construction outcome.

Pearson sets the assignments for the assessment of this component.

## **Assignments:**

- **Task 1:** Risk assessment
- **Task 2:** Constructing a practical outcome
- **Task 3:** Quality checks

## **The assignment for this component consists of three tasks:**

In response to Task 1, learners will use acquired knowledge and observation and analysis skills to show their awareness of hazards and risk in an area.

In response to Task 2, learners will demonstrate practical skills with tools and materials, and planning and time management skills to create a constructed outcome to a brief.

In response to Task 3, learners will demonstrate their applied knowledge and understanding in quality checking using specific measurement to identify quality.

The assignments will be marked by centres and moderated by Pearson.

The assignment will take approximately 8 supervised hours to complete

Learners must use the Pearson-set Assignment to provide the required evidence to achieve this component.



# IDSALL SCHOOL YEAR 12

## Construction Curriculum



### **Our Vision for Construction in year 12 (sixth form):**

At KS5 construction takes up the remainder of the learners timetable with designated lessons to Maths and English if they need to re-take these qualifications. A Level 2 Certificate or Diploma in Construction Operations is official recognition of the knowledge and skills needed to work in this area of the construction field. It allows candidates to learn, develop and practise the skills required for employment and/or career progression

### **The level 2 diploma can be taken over the whole academic year and will focus on:**

- Site Carpentry operations- Level 2
- Trowel occupations- Level 2
- Maintenance operations- Level 2
- Painting and decorating- Level 2
- Plastering skills- Level 2

Students will dedicate their week to the specific construction course that they have chosen to focus on. Students will learn all aspects of carpentry, all aspects of brickwork and maintenance skills which will help them to achieve employment in the chosen career pathway.

Each qualification will consist of 12 units and will cover key aspects like brick bonding, carpentry joints and fixings, dry-lining and skimming, decorating skills including painting and paper hanging

### **How are units marked?**

Units are simple pass or fail. All units are designed to replicate a working environment

### **What will I learn?**

Sustainable construction, health and safety, processes and techniques, and practical skills needed to help the learner succeed in an ever changing sector

### **Will these courses improve my chances of employment?**

These course provide students with all the theoretical knowledge and skills to progress onto employment or further study.

95% of learners who attend our sixth form for construction will leave in employment, or will progress on to further studies.

**The Big Picture-** Students at this stage will be 2 years into their 4 year plan and will now look to focus on trade based learning in their chosen trade. The level 2 diploma will allow the learners to access a higher level in terms of units and will be a gateway to employment for them. KS5 opens up a branch of routes learners can take from brickwork, carpentry, painting, plastering and even a maintenance operations which all have the same end goal which is employment. Students will already have closed the gap at this stage and will be looking to produce site quality work.

**Intent :** To help these young adults achieve that end goal of employment by giving them extended knowledge and understanding and the opportunity for them to not only improve on their current level but become site ready by learning other key skills like C.V writing, application writing and interview techniques which is run alongside the qualification through ID lessons

**Implementation:**

Units are chosen by teacher to enable students have the best opportunity to improve their chances of employment, mandatory units will be designed to help students gain the key skills needed in terms of knowing site safety and sustainable construction and processes.

Students will focus on continuing to develop and refine the specific theoretical and practical skills for their focus trade.

**Key Summative Assessments:**

Assessments take place at the end of every practical unit

**Autumn Term**

Health and safety

**Spring Term**

Practical tasks  
brickwork/carpentry  
/plastering/ painting

**Impact:**

This qualification opens up many possibilities for the students to gain employment, and progress on to a technical level 3 qualification. Students will have the skills needed to be able to implement them into their roles as tradesman, it may mean that the 4 year plan becomes a 3 year plan but the end goal remains the same.

Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<p><b>Health and safety</b></p> <p><b>Sustainable construction</b></p>	<ul style="list-style-type: none"> <li>• Understand the core principles of health and safety, legislations and regulations</li>   <li>• Students will be able to identify sustainable materials, uses and understand the benefits of a sustainable construction site and the use of pre-formed structures, students will be able to complete scenarios on modern technology reducing emissions from construction projects and alternative materials,</li> </ul>	<ul style="list-style-type: none"> <li>• The aim of this unit is to provide the learner with the knowledge to carry out safe working practices in construction, in relation to sourcing relevant safety information and using the relevant safety procedures at work</li>   <li>The aim of this unit is to provide the learner with the knowledge of building methods and construction technology in relation to:               <ul style="list-style-type: none"> <li>• understanding a range of building materials used within the construction industry and their suitability to the construction of modern buildings.</li> <li>• source relevant information and apply it to relevant tasks</li> <li>• calculating the resources from required drawings and specifications.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• This will be evident from KS4 and will help cement the learning outcomes here.</li>   <li>• Direct learning from year 11 first award, students will continue to expand the knowledge shown and show greater understanding</li> </ul>	<ul style="list-style-type: none"> <li>• Those wishing to progress on to level 3 will have the know how to progress especially in the health and safety at level 3 unit</li>   <li>• Again this is a direct link to the level 3 sustainable construction unit, furthering the understanding they already have, closing the gap making the progress smoother.</li> </ul>

Units	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	<b>Prior Learning</b>	<b>Future learning</b>
<p><b>Unit 4 and unit 5 construction techniques and construction methods of low-rise buildings</b></p> <p><b>Structure of construction</b></p>	<ul style="list-style-type: none"> <li>Students will be able to explain the techniques and methods to build a low-rise structure</li> <li>Students will be able to understand the documents, framework and the roles of construction personnel from office staff to technical roles to the trades. They will also have a better understanding of the sectors in construction and the work which is built, linking this to the economy and social needs.</li> </ul>	<ul style="list-style-type: none"> <li>Students will be able to use prior knowledge and incorporate it into both units and link materials and modern and traditional methods into their work.</li> <li>Prior learning from level 2 design unit will play a part in expanding their current knowledge, they will be able to pinpoint the roles and responsibilities of personnel and identify sectors in the industry</li> </ul>	<ul style="list-style-type: none"> <li>Students will be able to use prior learning from construction design and construction technology unit from first award into this unit</li> <li>Students can link this to prior units taken in year 11 and be able to expand on their prior learning</li> </ul>	<ul style="list-style-type: none"> <li>The knowledge gained from these 2 units will directly link the students to level construction technology, it will also help improve their knowledge of how buildings are built if they go into employment</li> <li>This can be expanded into further learning at level 3 allowing students to have a better understanding of the sectors, it will also help the students when applying for jobs and the sector they wish to go in to whether this be residential or commercial</li> </ul>

Units	<b>Disciplinary Knowledge (Skills)</b> This is the actions taken within a topic to gain substantive knowledge	<b>Substantive Knowledge</b> This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	<b>Prior Learning</b>	<b>Future learning</b>
<p><b>Bricklaying:</b></p> <ul style="list-style-type: none"> <li>• Brickwork and blockwork</li> <li>• Trowel operations</li> <li>• Blockwork tasks</li> </ul> <p><b>Carpentry and joinery</b></p> <ul style="list-style-type: none"> <li>• Carpentry operations</li> <li>• Joinery skills</li> </ul> <p><b>Decorating:</b></p> <ul style="list-style-type: none"> <li>• Painting techniques</li> <li>• Painting and decorating</li> <li>• Decorating operations</li> </ul>	<ul style="list-style-type: none"> <li>• Students choosing brickwork will already have the skills, this will be an opportunity expand on prior learning and link it into more advanced units</li> <li>• Carpentry students will expand their skills into more advanced units and learn further advanced techniques and skills</li> <li>• Students will expand their current skills and learn further advanced techniques and skills</li> </ul>	<ul style="list-style-type: none"> <li>• Students will already have the knowledge of brick and block tasks and will be able to expand this into further advanced units.</li> <li>• Students will already understand the basics and have this knowledge banked, it is now an opportunity for them to expand on this</li> <li>• Students would have chosen this trade due to prior knowledge and will look to expand this learning further, students will be challenged by further advanced units</li> </ul>	<ul style="list-style-type: none"> <li>• Prior learning from KS4 will be evident here, this is an opportunity for learners to truly excel and show their worth.</li> <li>• Prior learning at KS4 will enable students to access the curriculum a lot easier than those who have no prior knowledge.</li> <li>• Prior learning at KS4 which has helped close gaps will be vital in the progress of learning in this trade.</li> </ul>	<ul style="list-style-type: none"> <li>• No direct link to a level 3 qualification but this will open a door for them to progress into work and be site ready</li> <li>• This will allow the students the opportunity to go into the working world and demonstrate their skills into employment</li> <li>• The decorating diploma will enable students to be site ready and help them advance into employment completing their end goal</li> </ul>

Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<ul style="list-style-type: none"> <li>• Dry-lining operations</li> <li>• Plastering operations</li> <li>• Tiling techniques</li>   <li>• Masonry structures</li> <li>• Setting out masonry</li>   <li>• Structural carcassing</li> <li>• First and second fixings</li> </ul>	<ul style="list-style-type: none"> <li>• Students will be able to dry line walls, plaster, render and lay floor and wall tiles</li>   <li>• Students will be able to set out using the 3-4-5 method and use Pythagoras and trigonometry in their practical work, also understand how string line and profile boards work</li>   <li>• Students will be expected to build stud walls with a roof and be able to apply skirting board, architrave and hang a door</li> </ul>	<ul style="list-style-type: none"> <li>• Students will expand on units taught at KS4 and be able to hone in on speed, skills and neatness, they will also be able to demonstrate good practise.</li>   <li>• Students will be able to set out structures build them and calculate the materials needed to complete masonry tasks</li>   <li>• Students will put everything they have learnt up to this point into action and build a stud room and apply first and second fixings</li> </ul>	<ul style="list-style-type: none"> <li>• Students taking this trade will be able to link this back to prior learning at KS4 .</li>   <li>• Units will be directly linked to prior level 2 units and expanded into two tasks which would be deemed to meet the current legislation and standards of site work.</li>   <li>• These two units will tie prior level 2 practical units together and expand their knowledge further, students will need to use prior learning in order to complete these 2 units.</li> </ul>	<ul style="list-style-type: none"> <li>• Plastering diploma will allow learners the opportunity to progress in to employment</li>   <li>• Students at this stage will be ready to progress into employment or move on to a level 3 qualification</li>   <li>• By the time students have completed this qualification they will be site ready and very much employable</li> </ul>

# IDSALL SCHOOL YEAR 13

## Construction Curriculum



### **Our Vision for Construction in year 13:**

In year 13 students will take a level 3 certificate. This is equivalent to an A level. This is an ideal course for those who are looking to go in to technical roles or site management.

There are 3 units to complete with the option of an added unit of the students choice.

### **The units that need to be complete are as follows:**

- Health and safety at level 3
- Construction technology level 3
- Sustainable construction level 3

### **How are units marked?**

Units are marked pass, merit or distinction at level 3

### **What will I learn?**

You will learn key technical units which will help you progress on to an HNC or progress onto a technical construction job like site manager or architect.

### **How can I progress?**

Once you have finished the course you will be well supported by your teacher to help you find a job in construction or progress on to higher level education.

**The Big Picture-Intent:**

Those who have stayed on to do a level 3 qualification will be aiming to enter employment by the end of this academic year having achieved their 4 year plan which they began in year 10. By now they will have achieved much of the knowledge and understanding required in terms of practical skills and be looking at more technical roles in construction like site manager or even go on to university to study architecture/ surveying.

**Implementation:**

This course is intended to extend the knowledge and understanding of all learners seeking to progress on to technical roles or who are seeking to progress on to a HNC leading to university. The course has been designed to be accessible for those who would like to shorten their educational journey.

**Key Summative Assessments:**

Assessments take place at the end of every unit

**Spring Term**  
Sustainable construction

**Summer term**  
Construction technology

**Impact:**

This qualification can be run concurrently with a level 2 qualification or along side another course of similar size. Students will have better opportunities going forward in obtaining employment in their chosen career.



Units	Disciplinary Knowledge (Skills) This is the actions taken within a topic to gain substantive knowledge	Substantive Knowledge This is the specific, factual content for the topic, which is connected into a careful sequence of learning.	Prior Learning	Future learning
<p><b>Health and safety Level 3</b></p> <p><b>Sustainable construction level 3</b></p> <p><b>Construction technology level 3</b></p>	<ul style="list-style-type: none"> <li>Students will be able to understand how control measures work in risk assessments, identify different risk assessments, accident reporting procedure and look at fines, imprisonment set by HSE</li> <li>Students will be able to identify materials and find alternative methods to construct buildings in a sustainable fashion and identify the impact construction has on the natural environment</li> <li>Students will know different methods used to build in construction from foundations, to roofs to insulation used in cavity wall systems, students will be able to identify different flooring and link this into both carpentry and brickwork tasks as well as sustainability</li> </ul>	<ul style="list-style-type: none"> <li>Risk assessments control measures and how health and safety impacts construction.</li> <li>Sustainable construction and methods</li> <li>Different building foundations and the usage each offers</li> <li>Roof structures, how they are built and the reason of different designed buildings</li> </ul>	<ul style="list-style-type: none"> <li>Students will take prior learning from the previous 3 years and link it to this unit and expand on their findings.</li> <li>Prior learning from year 12 and year 11 will be tested here, students will need to identify key materials what are renewable, identify the three R's and look at other methods used to make construction sustainable preventing damage to the environment</li> <li>Students will be able to look back at prior learning from year 11 and 12 and demonstrate the knowledge gained and expand it in this unit</li> </ul>	<ul style="list-style-type: none"> <li>]With this knowledge they can progress to become site managers or even look at the path of health and safety officers</li> <li>Students will be able to go into site management or even look at roles involving sustainability, as part of a council planning committee</li> <li>Students could go on and become apprentice site managers with this qualification and be able to achieve their HNC sand HND</li> </ul>