



Free
Resource!

Industry
expertise not
required!

Construction* Careers Lesson Toolkit

This **FREE** pack contains everything you need to deliver **Careers Sessions on Construction** to students aged 14–19.

The pack contains **FOUR ready to go lesson plans**, designed with **input from teaching and careers professionals**.

Each lesson plan contains **integrated teaching notes**.

Plans are fully and easily **editable** so you can adapt mix, match, and scale to you own requirements and those of your students.

*Be surprised by the **variety** this industry can offer!

This pack contains:

	Teaching Aid:	Student Instructions:
Lesson Plans – Overview	1 slide	
Plan 1 – Quick Dip: 20 minutes Construction Roles	1 slide	1 slide
Plan 2 – Standard Lesson: 1 hour Find Your Match	2 slides	2 slides
Plan 3 – Drop Down Day: 2 hours Construction Careers	4 slides	14 slides*
Plan 4 – Year Group Session: 1 Day Fantasy Schools	4 slides	4 slides
Video Playlist – Summary List of Case Study Videos (internet connection required for access)		1 slide

*Includes exercise cards and adaptation options

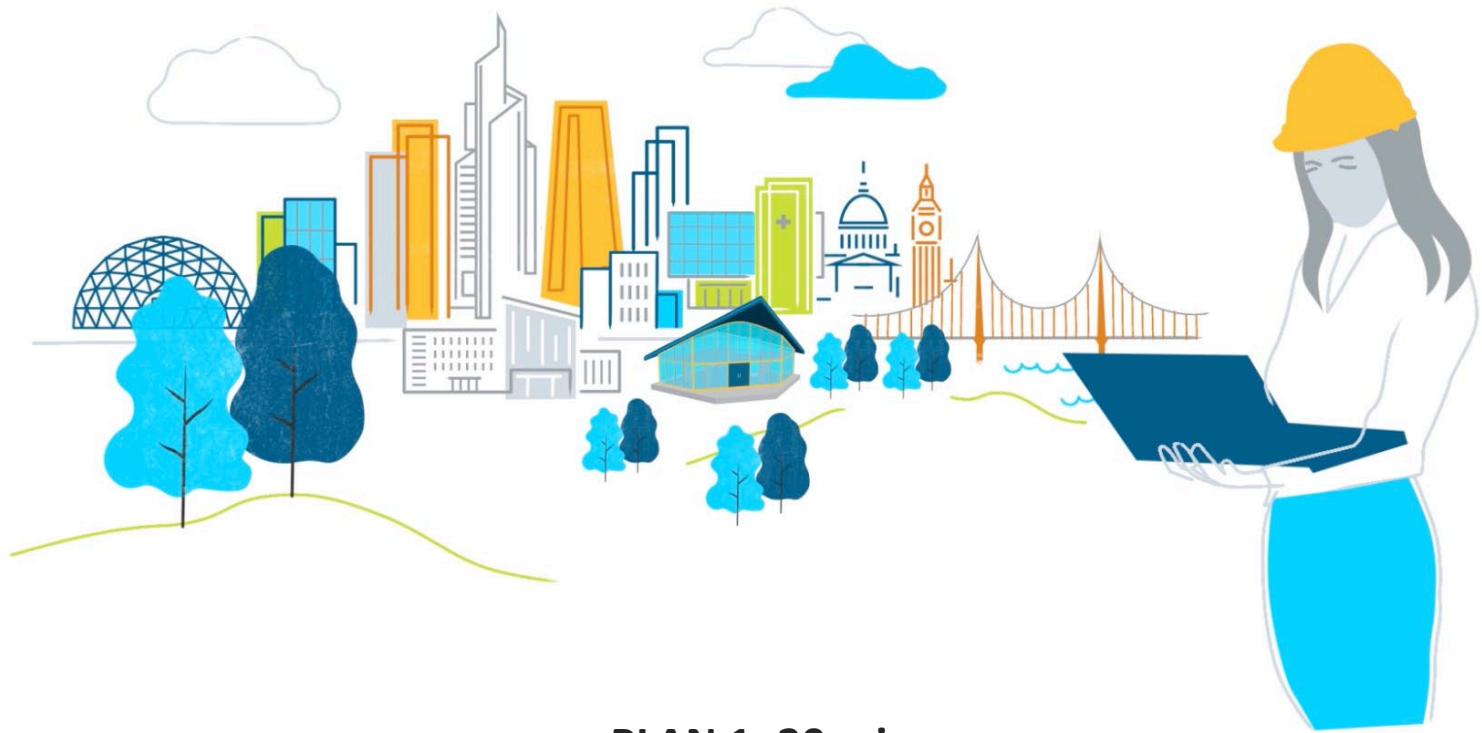
THINK CONSTRUCTION



Lesson Plans

LESSON PLANS OVERVIEW

Lesson	Plan 1	Plan 2	Plan 3	Plan 4
	Mix & Match			
Typical Period	Quick Dip	Standard Lesson	Drop Down Day	Year Group Session
Approx. Duration	20 mins	1 hour	2 hours	One Day
Group Activity Theme	Construction Roles	Find Your Building Match	Construction Careers	Fantasy Schools
Adaptations	Base version	Base version	Base version	Base version
		Stretch option	Stretch option	
	Adaptable for a subject lesson	Adaptable for a subject lesson		Adaptable for a subject lesson



PLAN 1: 20 min
Quick Dip

Whatever **your role in construction you'll play a part** in making schools, hospitals, bridges, roads, railways, power supplies etc. for people to use and enjoy for years to come.



CONSTRUCTION ROLES 20m

Teacher's information



Reference Guidance [here](#)

We take our built environment for granted...
but how many roles are involved in creating it?

5m

In plenary (or pre-session)

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- Pick 3 and say what skills you think they require.

10m

Base Session

In groups

- Choose **one role** to explore further
- Watch the **video featuring that role** [\[list here\]](#) and write down **the most compelling feature** about it to describe to the class.

the video:

Subject Specific / Stretch Adaptation

In groups

- Choose **one role you think** fits well with the subject you are studying
- Watch the **video featuring that role** [\[list here\]](#) and write down **one thing** that
a) **supports** and b) **challenges** your first idea.

10m

In plenary (or pre-session)

- Describe your findings
- Pin or Post-It to the wall
- What did you conclude?



CONSTRUCTION ROLES

We take our built environment for granted...
but how many roles are involved in creating it?

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- What **surprised or interested** you from the video?

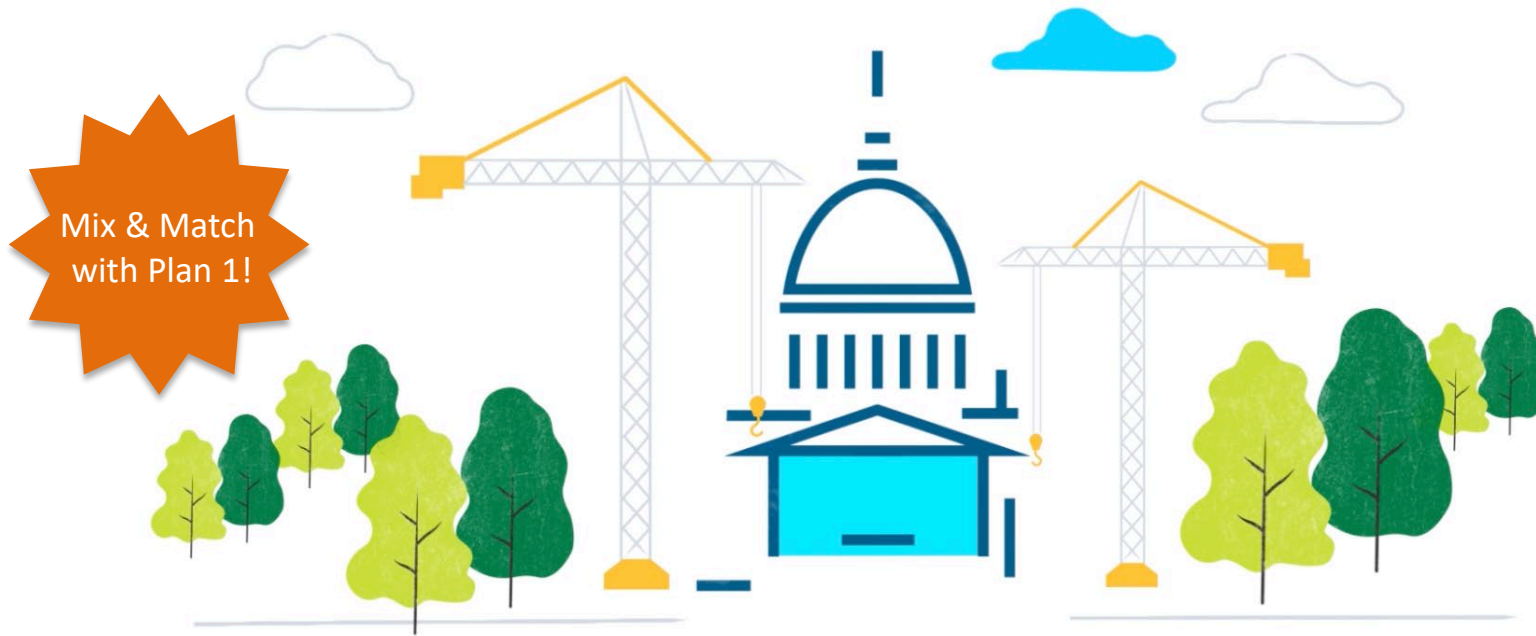
Task A

- Choose **one role** to explore further
- Watch the **video featuring that role** [\[list here\]](#) and write down **the most compelling feature** about it to describe to the class.

Task B

- Choose **one role you think** fits well with the subject you are studying
- Watch the **video featuring that role** [\[list here\]](#) and write down **one thing** that
a) **supports** and b) **challenges** your first idea.

- Describe your findings
- Pin or Post-It to the wall
- What did you conclude?



PLAN 2: 1 hour
Standard Lesson

Each construction project **is unique.**



FIND YOUR MATCH 1/2 60m

Teacher's information



Reference Guidance and Game Cards [here](#)

Let's look at some iconic structures in our built environment and what goes into creating them.

10m

In plenary (or pre-session)

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- What **one** thing **surprised or interested** you from the video?

35m

Base Session S1: In groups

- From the cards on your table match the name of the structure with the right picture and facts. Arrange them side by side
- Each structure has 3-4 cards
- **The first group with all correct matches wins!**
- Agree **one "favourite fact"** to feed back to the class. Give reasons for your choice.

S2: (Also pre or post session activity)

- Use the internet to research **two new facts** about a building from this set **OR** from one you choose
- Working in pairs, **explain to your partner about your building** and the reason you chose those facts
- Prepare to feed back to the class about **your partner's choice** of building and facts.

15m

In plenary (or pre-session)

- Groups describe their **favourite fact choice** to the class. Post-It to the wall.

In plenary (or pre-session)

- S2 Pairs **describe their partner's choice**. Post-It to the wall
- Everyone votes on their **favourite facts** and building.



FIND YOUR MATCH – PART 1

Let's look at some iconic structures in our built environment and what goes into creating them.

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- What **one** thing **surprised or interested** you from the video?

TASK 1

- **Work in Groups**
- From the cards on your table match the name of the structure with the right picture and facts. Arrange them side by side
- Each structure has 3-4 cards
- **The first group with all correct matches wins!**
- Agree **one "favourite fact"** to feed back to the class. Give reasons for your choice.

Describe your **fact** to the class.
Post-It to the wall.

TASK 2

- **Work in pairs**
- Use the internet to research **two new facts** about a building from this set **OR** from one you choose
- Working in pairs, **describe the building and facts** to your partner and reasons for your choice
- Feed back to the class about **your partner's choice** of building and facts.

Pairs **describe each others' choice** to class.
Post-It to the wall.

All vote for your favourite building



FIND YOUR MATCH 2/2 60m

Teacher's information



Let's look at some iconic structures in our built environment and what goes into creating them.

10m

In plenary (or pre-session)

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- What **surprised or interested** you from the video?

35m

Stretch Session (16–19): in groups

- Research a local or famous or favourite building (real or fictional)
- Identify and share **one fact** about it in **EACH category**:
 - a) science & technology
 - b) environment
 - c) social/economic
 - d) design.

Subject Specific Adaptation: in groups

- From the Careers Map choose **one role** that fits with the subject you are studying
- Watch the **video featuring that role** [[list here](#)] and write down **one thing** that a) **supports** and b) **challenges** your first idea about the role
- Linking back to your chosen building suggest **two reasons why** this role is important in building it.

15m

In plenary

- Describe your findings to class, giving reasons
- Pin or Post-It to the wall with a picture of your building
- Each person Post-It votes on their favourite building.



FIND YOUR MATCH – PART 2

Let's look at some iconic structures in our built environment and what goes into creating them.

- Watch the video **Careers in Construction** [here](#)
- How many **different roles** did you identify?
- Study the **Construction Careers Map** [here](#)
- What **one thing surprised or interested** you from the video?

TASK 3a

- **Work in Groups**
- Research a local or famous or favourite building (real or fictional)
- Identify and share **one fact** about it in **EACH category**:
 - a) science & technology
 - b) environment
 - c) social/economic
 - d) design.

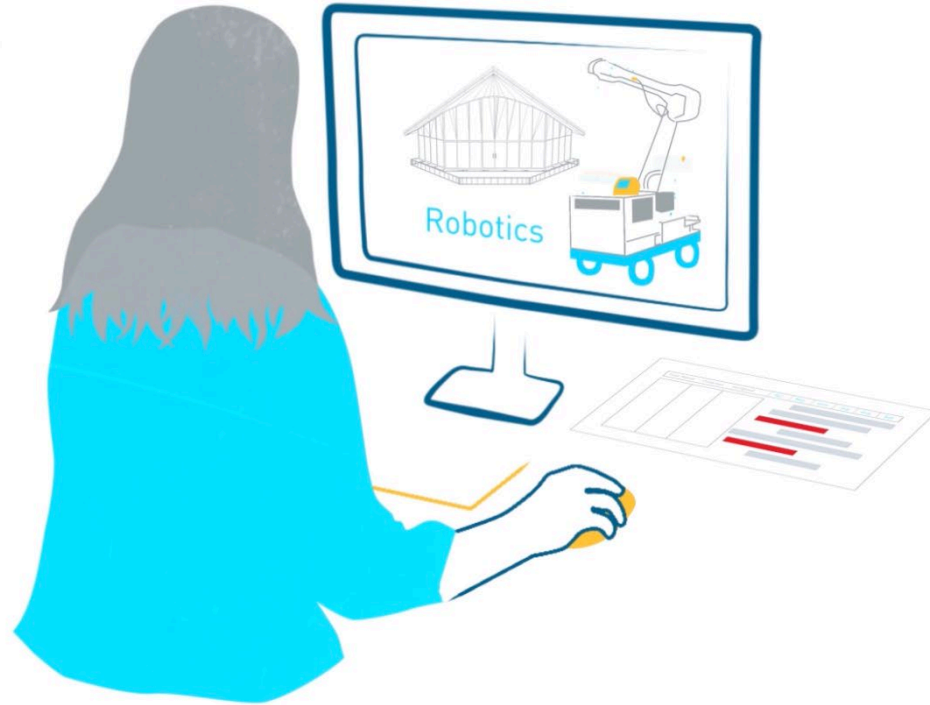
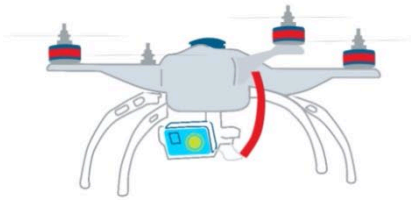
Describe your findings to the class, giving reasons.

TASK 3b

- **Work in Groups**
- From the Careers Map choose **one role** that fits with the subject you are studying
- Watch the **video featuring that role** [[list here](#)]
Write down **one thing** that a) **supports** and b) **challenges** your first idea about the role
- Think back to your favourite building. Offer **two reasons why** this role is important in building it.

Pin or Post-It to wall with a picture of your building.

All vote for your favourite building



PLAN 3: 2 hour
Drop Down Day

In construction you'll develop **transferable skills**
and use **cutting edge technology** and **innovative techniques**.

CONSTRUCTION CAREERS 1/4 2h

Teacher's information



Reference Guidance and Student Checklist [here](#)

UK construction's high quality professionals come from all walks of life.

Section 1: In plenary (or groups)

30m

- Write down **three words** you associate with **people who work in construction**
- Post-It them to the wall placing **like words** together.

Watch the videos

Careers in Construction [here](#) and

Why I love construction [here](#)

Why I Love My Job [here](#)

Study the **Construction Careers Map** [here](#)

- How many **different roles** did you identify?
- What did you see or hear to a) **support** and b) **challenge** your first idea about working in construction? Post-It them to the wall next to the first set of words
- **Review the wall.** What **conclusions** could you draw from this?

30m

Industry Guest Speaker [\[list here\]](#)

AND/OR

Case Study Video [\[list here\]](#)

- What's involved in their job?
- What do they like about it?
- How did they get into it?



CONSTRUCTION CAREERS – PART I

UK construction's high quality professionals come from all walks of life.

- Write down **three words** you associate with **people who work in construction**
- Post-It them to the wall placing **like words** together.

Watch the videos

Careers in Construction [here](#) and

Why I love Construction [here](#)

Study the **Construction Careers Map** [here](#)

- How many **different roles** did you identify?
- What did you see or hear to a) **support** and b) **challenge** your first idea about working in construction? Post-It them to the wall next to the first set of words
- **Review the wall.** What **conclusions** could you draw from this?

Guest Speaker [or Case Study Video [list here](#)]

What can you find out about the following:

- What's involved in their job?
- What do they like about it?
- How did they get into it?



CONSTRUCTION CAREERS 2/4 2h

Teacher's information



We've heard about the many careers available in construction.
In this session we'll learn more!

Section 2: Standard

15m

In plenary (or pre-session activity)

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

30m

Base session in groups of 5: Guess Each other's careers by interrogation!

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

Tips

Use the questions from the wall Think about the video and the map Use the tick sheet

15m

In plenary

- What **kind of questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



CONSTRUCTION CAREERS – PART 2a

We've heard about the many careers available in construction.
In this session we'll learn more!

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

Guess Each other's careers by interrogation! (work in groups)

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

Tips

Use the questions from the wall Think about the video and the map Use the tick sheet

- What **kind of questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



CONSTRUCTION CAREERS 3/4 2h

Teacher's information



We've heard about the many careers available in construction.
In this session we'll learn more!

Section 2: Alternative 1

10m

In plenary (or pre-session activity)

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

20m

Stretch session 16–19, in groups of 5

S1: Guess each other's careers by interrogation!

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

S2: Research the roles you like best

- Identify **two** profiled (or video [\[list here\]](#)) roles you like best and use the Internet to research routes into each one as a career
- Write down **two** a) similarities b) differences
- How many other construction roles can you identify?

TIP: Look at these [websites \[list here\]](#)

10m

In plenary

- What **kind of questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



CONSTRUCTION CAREERS – PART 2b

We've heard about the many careers available in construction.
In this session we'll learn more!

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

Work in groups

TASK 1

Guess each other's careers by interrogation!

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

TASK 2

Research the roles you like best

- Identify **two** profiled (or video [[list here](#)]) roles you like best and use the Internet to research routes into each one as a career
- Write down **two** a) similarities b) differences
- How many other construction roles can you identify?

TIP: Look at these [websites](#) [[list here](#)]

- What **questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



CONSTRUCTION CAREERS 4/4 2h

Teacher's information



We've heard about the many careers available in construction.
In this session we'll learn more!

Section 2: Alternative 2

10m

In plenary (or pre-session activity)

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

20m

Subject specific adaptation, in groups of 5

S1: Guess each other's careers by interrogation!

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

S2: Routes to roles

- Choose **two** profiled (or video [[list here](#)]) roles that it with the subject you are studying
- Use the Internet to research possible routes into each one as a career
- How many construction roles could you do from your broad subject area? [[link to subject map](#)]

TIP: Look at these [websites](#) [[list here](#)]

10m

In plenary

- What **kind of questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



CONSTRUCTION CAREERS – PART 2c

We've heard about the many careers available in construction.
In this session we'll learn more!

- What **kind of questions** would help me to to **guess somebody's job**?
- Post-It **examples** to the wall.

Work in groups

TASK 1

Guess each other's careers by interrogation!

- You each have **two career profile cards**
- Take **5 minutes** to read them
- **Don't share** with others!
- **Card A holders answer first**
- Others ask them **one question each** in turns to guess the career
- Continue until **all 10 careers** are guessed.

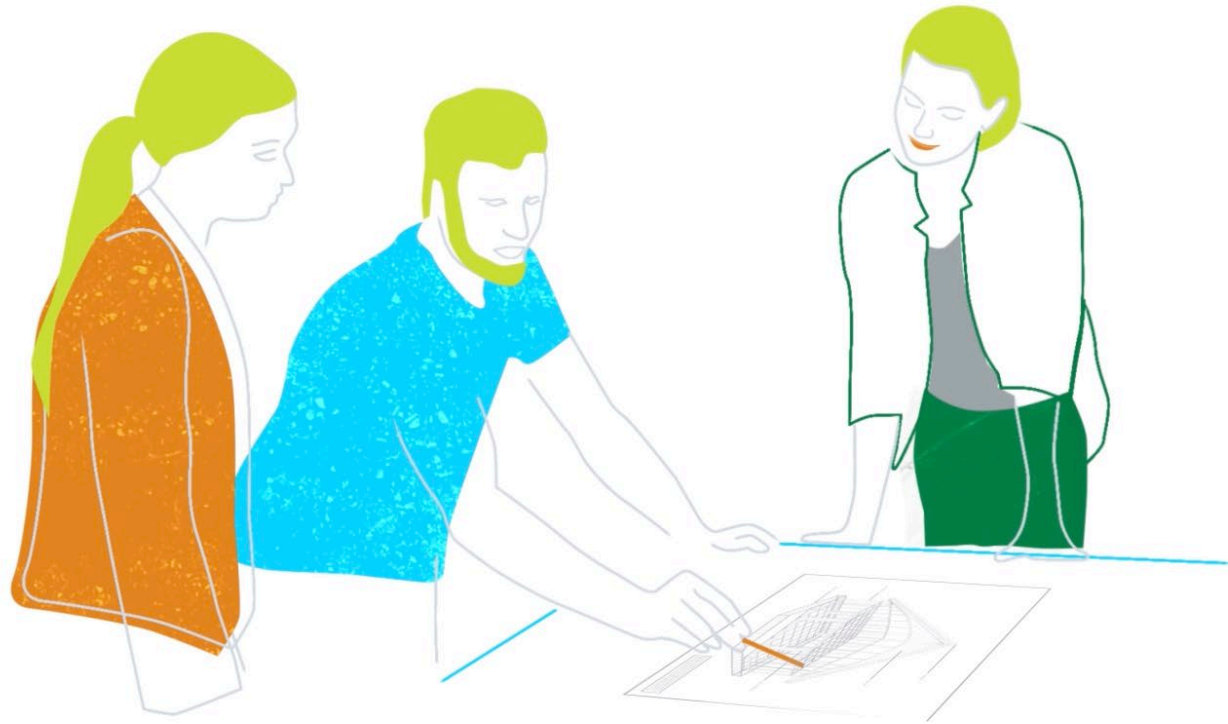
TASK 2

Routes to roles

- From the cards or video list [[list here](#)] choose **two** roles that fit with [subject]
- Use the Internet to research possible routes into each one as a career
- How many other construction can you see that might relate to [subject]?

TIP: Look at these [websites](#) [[list here](#)]

- What **questions** worked best?
- Write down **ONE thing** you have learned about construction today
- Post to the wall.



Design Managers must understand the needs of the client

Construction Career Cards



What do they do?

Make sure building projects are finished on budget, on time and in line with clients' requirements.

Main point of contact for subcontractors and the public.

Typically works for building companies and specialist contractors; government or utilities

Day to day activities may include:

- Managing people, budgets and costs.
- Checking plans with architects, surveyors and engineers
- Hiring staff and buying materials
- Planning work schedules
- Monitoring building progress and costs
- Reporting to clients
- Maintaining and promoting health and safety.

Entry requirements

- Foundation or honours degree, HND, or industry experience in an area like:
 - Building or Civil Engineering
 - Surveying
 - Site management
 - Estimating
- Possible to get into this job through a higher or degree apprenticeship.

Salary

Starter: £27,000 to £33,000

Experienced: £35,000 to £50,000

Highly Experienced: £60,000 or more

These figures are a guide.

Working hours and environment

Usually standard hours Mon-Fri.

Sometimes overtime to meet deadlines.

Spends time between project sites and meeting clients and contractors.

Skills required

- Good communication
- Strong team-working and leadership
- Project management
- Maths and IT.

Career path and progression

Progress to senior management in a construction company, in contract management or consultancy.

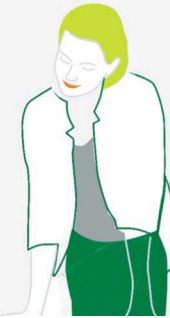
Construction Project Management

<https://www.ciob.org/your-career/become-chartered-ciob-course>

Case study

Construction Project Manager (4m)

<https://www.youtube.com/watch?v=4h0vcEvY7Bw>



What do they do?

Co-ordinates the design work across the entire construction process.

Ensures all necessary information is shared across the design and build teams so the end product delivers what the client expects.

Day to day activities may include:

- Reducing health and safety risks in the design
- Overseeing design teams and leading project meetings
- Working with clients to ensure their expectations met and requirements fulfilled
- Managing design information and documenting all processes
- Ensuring compliance with changing laws and codes of practice.

Entry requirements

Possible to enter without formal qualifications though more accepted with:

- BTEC in Building Studies, Building Engineering/Management
- HNC/HND/degree in Construction Management or Architecture or their equivalent
- BSc in Design and Construction Management.

Salary

Starter: £30,000 to £45,000

Experienced: £40,000 to £60,000

Highly Experienced: £70,000 to £90,000

These figures are a guide.

Working hours and environment

Usually standard hours Mon-Fri. Sometimes evenings, particularly in senior roles.

Skills required

- Strong technical ability
- Full understanding of design, legal and commercial issues
- Communication and people management
- Project management.

Career path and progression

Progress into Building Information Modelling (BIM) or a project director.

Case study

Sarah is a Design Manager (3m)

https://www.youtube.com/watch?v=SioRI_CUPHIQ



What do they do?

Responsible for building contracts, building costs and construction projects.

May manage one large or several smaller contracts.

Works closely with quantity surveyors and planning engineers.

Day to day activities may include:

- Preparing legal documents for tenders
- Making sure suppliers meet the terms of their contracts
- Ensuring the project is meeting all legal requirements
- Helping to resolve disputes should they arise
- Reviewing costs alongside the Quantity Surveyor.

Entry requirements

- BTEC in Building Studies/Engineering / Management
- HNC/HND/degree in Construction Management or Architecture
- BSc in Construction Management.
- Can also start as a construction contracts assistant or administrator or with project or contract management experience from another industry.

Salary

Starter: £25,000 to £31,000

Experienced: £31,000 to £46,000

Highly Experienced: £46,000 to £57,000

These figures are a guide.

Working hours and environment

Usually standard hours Mon-Fri.

Office based with site visits

Often requires a driving licence.

Skills required

- Project Management
- Strong Maths and IT
- Budgeting
- Problem Solving, Communication, Presentation, Negotiation.

Career path and progression

Progress into senior construction management; health and safety inspection or transfer into other sectors with contracting knowledge.

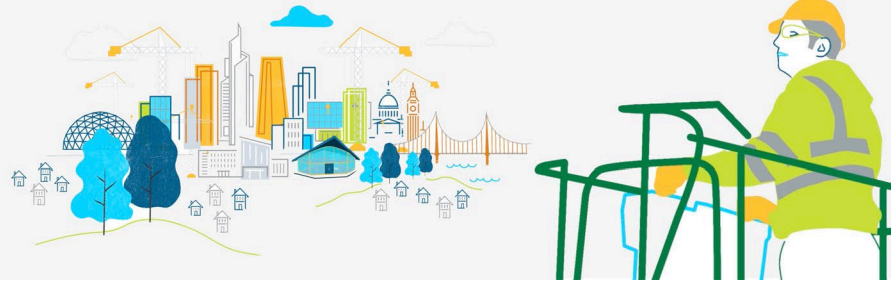
Case study

Contracts Manager (1m)

<https://www.youtube.com/watch?v=3Atm o jPFyiU>

³ Adapted from National Careers Service website, accessed 19 January 2017 <https://nationalcareersservice.direct.gov.uk/job-profiles/construction-contracts-manager>

*Source: careerstructure.com, accessed Aug 2017



What do they do?

Assess the condition and structure of buildings and advise on repairs or alterations.

Work on surveying, legal matters, planning and inspection. Clients range from homeowners to large companies.

Day to day activities may include:

- Surveying properties, identifying structural faults and making recommendations for repairs
- Advising clients on issues like property boundary disputes
- Checking properties to make sure they meet building regulations, and fire safety and accessibility standards
- Dealing with planning applications and with improvement or conservation grants.

Entry requirements

- HNC/HND/Degree in Building Surveying
- An accredited degree in a related field such as geography, property or construction
- With an HNC, HND or foundation degree you could start as a surveying technician and take further qualifications.

Skills required

- Problem solving, planning and prioritisation
- A high level of accuracy
- Data interpretation
- Strong communication, negotiation and presentation
- Understanding of construction technology.

Salary

Starter: £22,000 to £26,000

Experienced: £28,000 to £40,000

Highly Experienced: up to £70,000

These figures are a guide.

Career path and progression

Progress into project or senior management.

Move into private practice or consultancy or a related field like building control.

Working hours and environment

Usually standard hours Mon-Fri between office and site.

May require a driving licence.

Case study

Ewan, a Building Surveyor (3m) says his job is like being a “house doctor”*

<https://www.youtube.com/watch?v=DfW HtCgHQdA>

⁴ Adapted from National Careers Service website, accessed 19 January 2017 <https://nationalcareersservice.direct.gov.uk/job-profiles/building-surveyor>

*Source: University College of Estate Management, accessed Aug 2017



What do they do?

Helps design and deliver a building using 3D computer models.

Ensures successful collaboration between building designer, owner and facilities manager.

Deals in digital files and manages drawing production.

All public sector projects are now required to use BIM so this skill is in huge demand.

Day to day activities may include:

- Software training
- Overseeing the purchase of hardware
- Creating project templates
- Keeping control over electronic project documents and amendments
- Keeping up with technology updates to ensure the team is equipped with the best tools for the job
- Leading BIM meetings.

Entry requirements

- Usually a degree in a relevant field like Construction and the built environment or Architecture
- You could also move into BIM with computer science and even a gaming background.

Salary

Starter: £20,000 to £30,000

Experienced: £30,000 to £50,000

Highly Experienced: £50,000 to £80,000

These figures are a guide.

Working hours and environment

Usually standard office Mon-Fri, sometimes evenings and weekends to meet deadlines. Mainly office based with some site working.

Skills required

- Knowledge and experience of all construction processes
- Detailed information on the BIM process
- The ability to interpret and manage data.

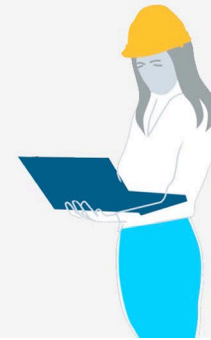
Career path and progression

Progress to be a partner, managing director or consultant.

Case study

What is BIM Strategy Management (4m)

<https://www.willmottdixon.co.uk/expertise/bim>



What do they do?

Ensures the construction project has the best possible impact on the environment, the well-being of end users and the community.

Promotes sustainability best practice from design to construction right across the lifespan of a project.

Day to day activities may include:

- Liaising with engineers and designers to develop a sustainability plan
- Assessing the likelihood of achieving sustainability certifications
- Identifying any sustainability risks and opportunities to reduce them
- Preparing reports
- Recommending strategies for improvement
- Advising on low and zero-carbon technology.

Entry requirements

- Usually a degree in a relevant field like:
 - Environmental management, Surveying, Engineering or Construction.
- You could move into Sustainability with related experience and qualifications e.g. in digital modelling software.

Salary

Starter: £25,000 to £35,000

Experienced: £35,000 to £50,000

Highly Experienced: £50,000 to £60,000

These figures are a guide.

Working hours and environment

Usually standard office Mon-Fri.
Office based with significant travel between sites and clients.

Skills required

- Detailed knowledge of sustainability
- Strength in analysis and logic
- Good communication
- Persuasiveness

Career path and progression

Progress to be a senior manager, managing director or consultant.

Case study

Construction sustainability careers

<https://www.youtube.com/watch?v=9znW4X0ssZ8>



What do they do?

Manage the day to day running of a construction project

Prepare sites before work begins, plan projects and oversee the work to ensure it meets specifications, budget and timescale.

Responsibilities vary with project size.

Day to day activities may include:

- Managing contracted construction workers and motivating workforce
- Appointing subcontractors
- Running site management meetings
- Making safety inspections and ensuring construction and site safety
- Checking and preparing site reports, designs and drawings, quality control checks
- Day to day problem solving
- Using specialist construction management computer applications.

Entry requirements

- HNC or HND in construction, civil engineering, architecture or building surveying
- CIOB Level 4 in Construction Site Management
- NVQ in construction management.
- School leavers could go for an apprenticeship and study part-time for HNC or HND.

Salary

Starter: £22,000 to £43,000

Experienced: £34,000 to £55,000

Highly Experienced: £40,000 or more

These figures are a guide.

Working hours and environment

Standard Mon-Fri, sometimes overtime to meet deadlines. Between office and site.

Often needs a driving licence.

Skills required

- Management
- Good communication
- Strong organisation
- IT.

Career path and progression

With experience move into construction project management.

Case study

Luke's a trainee site manager (1m). He's never looked back after Uni.

<https://www.youtube.com/watch?v=qOwTjG1GlvQ>



What do they do?

Help to design and build large structures and buildings like hospitals, sports stadiums and bridges.

Works with clients, architects and other building professionals.

Day to day activities may include:

- Investigating and advising on building materials like glass, steel and concrete
- Working out the loads and stresses on different parts of a building
- Designing structural elements
- Developing engineering plans and computer models
- Inspecting unsafe buildings and deciding whether they should be demolished
- Preparing bids for contract tenders
- Supervising project teams.

Entry requirements

- Usually with a degree in structural or civil engineering.
- With a foundation degree, HNC or HND in engineering you could start as an engineering technician and get fully qualified with training on the job.

Skills required

- Excellent maths, IT and science
- Creativity
- Project management
- Budget management.

Career path and progression

Construction design or project management or academic teaching/research.

Become a consultant e.g. to building insurers or overseas engineering or disaster relief.

Salary

Starter: £22,000 (graduate)
Experienced: £24,000 to £40,000
Highly Experienced: £50,000
(chartered engineer)

These figures are a guide.

Working hours and environment

Usually standard Mon-Fri.

Based between office and project site.

Case study

Tom's a site engineer. Here's how he got started: <https://youtu.be/GfHrEDD4VDA>

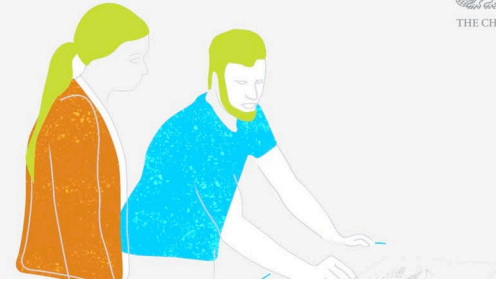
Bobby's a civil engineer (1.5m).

Here's how he deals with it:

<https://www.youtube.com/watch?v=thSn3TcK1C8>

⁸ Adapted from National Careers Service website, accessed 19 January 2017 <https://nationalcareersservice.direct.gov.uk/job-profiles/structural-engineer>

Source: Go Construct website, accessed 31 Aug 2017



What do they do?

Work out how much a building costs to construct and tracks the finances and quality standard of the project.

Typically work for building companies and contractors; property company; civil engineer; government.

Day to day activities may include:

- Working out estimates for materials, time and labour costs
- Advise on costs and values of projects
- Negotiating and drawing up contracts
- Forecasting and monitoring costs of construction
- Reporting on finance to clients
- Advising clients on legal and contractual matters
- Keeping records, preparing work schedules and writing reports.

Entry requirements

- Usually a degree in Quantity Surveying
- A surveying-based apprenticeship that includes a relevant qualification and follow with an industry accredited degree.

Salary

Starter: £20,000 to £25,000

Experienced: £30,000 to £45,000

Highly Experienced: £50,000 to £60,000

These figures are a guide.

Working hours and environment

Standard Mon-Fri, sometimes evenings and weekends to meet deadlines.
Split between site office and site working.

Skills required

- Management
- Good communication
- Strong organisation
- IT.

Career path and progression

Move into senior project or supply chain management or consultancy.

Move across to planning or specialise in property contract law.

Case study

Vipattz is a QS in tropical Brunei.

Here's his blog on what he gets up to
<https://www.ciob.org/blog/measure-measure-career-diary-qs>



What do they do?

Create a work programme to support successful completion of a building project.

Makes a time-plan for necessary activity on the project and the best method and technology for achieving it.

Emphasises cost and schedule control.

Day to day activities may include:

- Defining work tasks, how long they'll take
- Determining how many people and what equipment are required to deliver projects
- Recommending improvements to processes
- Coordinating sub-contractor/supplier planning and scheduling.

Entry requirements

- Usually an HNC or HND in construction or a building related area.
- Work and study part time for a relevant qualification.
- With experience in project planning and software, you could enter construction from another sector.

Salary

Starter: £25,000 to £35,000

Experienced: £45,000 to £55,000

Highly Experienced: £60,000 or more

These figures are a guide.

Working hours and environment

Standard Mon-Fri, mainly office based with regular site visits.

Skills required

- Strong organisation
- Strong analysis
- Good listening
- Attention to detail

Career path and progression

With experience become a senior planner or department head, Progress further to become a project director or construction director.

Case study

Mark shares what it takes to be a planner – great communication!(3.5m)
https://www.youtube.com/watch?v=xx4_iCDnSio

Extension Option:
Mix & Match with
Plans 1 and 2!



PLAN 4: 1 day+
Year Group Session

Over **2 million people** work in **UK construction**.
Construction professionals are **in demand worldwide!**



FANTASY SCHOOLS 1/4 | DAY

Teacher's information



Reference Guidance [here](#)

Each construction project is unique.

Section 1: In plenary (or groups)

30m

Write down **three words** you associate with **CONSTRUCTION**. Post-It them to the wall placing like words together.

Watch the videos

Careers in Construction [here](#) and

Why I Love Construction [here](#)

Study the **Construction Careers Map** [here](#)

- How many **different roles** did you identify?
- What did you see or hear to a) **support** and b) **challenge** your first idea about working in construction? Post-It them to the wall next to the first set of words
- **Review the wall**. What **conclusions** could you draw from this?

30m

Industry Guest Speaker [\[list here\]](#) AND/OR **Case Study Video** [\[list here\]](#)

- Q&A

1h

What's involved in their job?

What do they like about it?

How did they get into it?



FANTASY SCHOOLS – PART I

Each construction project is unique.

Write down **three words** you associate with **CONSTRUCTION**. Post-It them to the wall placing like words together.

Watch the videos
Careers in Construction [here](#) and
Why I Love My Construction [here](#)
Study the **Construction Careers Map** [here](#)

- How many **different roles** did you identify?
- What did you see or hear to a) **support** and b) **challenge** your first idea about working in construction? Post-It them to the wall next to the first set of words
- **Review the wall**. What **conclusions** could you draw from this?

Industry Guest Speaker

OR

Case Study Video [\[list here\]](#)

What can you find out about the following:

What's involved in their job?

What do they like about it?

How did they get into it?

Each construction project is unique.

Section 2: In plenary (or pre-session activity)
Base Session

Subject specific: Design, Technology,
Maths, Science, Engineering

15m

Fantasy Schools Introduction

- Watch this **video on building skyscrapers** <https://www.youtube.com/watch?v=sNKKIO17ynk>
- How do they keep from falling over?
- Watch this **video of the building in use:** <https://youtu.be/eaUVA8EtdNU> (55s)
- What is it made of?
- Why was this material used?

1h15m



FANTASY SCHOOLS – PART 2

Each construction project is unique.

Introduction

- Watch this **video on building skyscrapers**
<https://www.youtube.com/watch?v=sNKKIO17ynk>
- How do they keep from falling over?
- Watch this **video of the building in use**: <https://youtu.be/eaUVA8EtdNU> (55s)
- What is it made of?
- Why was this material used?



FANTASY SCHOOLS 3/4 | DAY

Teacher's information



Each group will design a new secondary school.
The class will vote for the best one.

Section 3

30m

In groups: Fantasy Schools Part One – Create!

- **Draw any aspect of your idea**
e.g. floor plan, exterior front or side view; **whatever gets your design across best**
- There are no design limits so **let your imagination run wild!**
- Write down **two things** you will say about your design to the class
- Identify **one person** to feed back.

PROMPTS:

- What will the walls be made of?
- What will the roof look like?
- Where will students learn, exercise, eat?

TIPS:

- What are its special features?
- Structure? Design? Materials?
- Why will students enjoy going there?

30m

In plenary: Feedback

- Describe your design to the class
- How would it work **in reality?**
- What would be its a) strengths b) drawbacks?
- Vote on the design you like best.

OPTIONAL:

Guest Speaker asks questions and comments on the designs.

2h15m

FANTASY SCHOOLS – PART 3

Each group will design a new secondary school.
The class will vote for the best one.

TASK 1: Create! Work in Groups

- **Draw any aspect of your idea**
e.g. floor plan, exterior front or side view; **whatever gets your design across best.**
- There are no design limits so **let your imagination run wild!**
- Write down **two things** you will say about your design to the class.
- Identify **one person** to feed back.

PROMPTS:

- What will the walls be made of?
- What will the roof look like?
- Where will students learn, exercise, eat?

TIPS:

- What are its special features?
- Structure? Design? Materials?
- Why will students enjoy going there?

- Describe your design to the class.
- How would it work **in reality**?
- What would be its a) strengths b) drawbacks?

Vote on the design you like best

Each group will design a new secondary school.
The class will vote for the best one.

Section 4:

30m

In groups: Fantasy Schools – Dreams to Reality

Each group has **one theme** to consider for their design:

Logistics

How will you choose a site for your school?
How will you get access without disruption?

Users

Who will use your school?
What will they need from the new building?

Sustainability

What environmentally friendly features will your building have?
How will they help?

Community

How will your building benefit the community?
What will be different?

Identify **one person** to feed back

Notes or sketches may help you

30m

In plenary: Feedback

- Feed back your considerations to the class
- In groups visit each building design in turn and consider what further adaptations you would make
- Vote again on the design you like best.

3h:15m



FANTASY SCHOOLS – PART 4

Each group will design a new secondary school.
The class will vote for the best one.

Task 2: Dreams to Reality. Work in Groups

Each group has **one theme** to consider for their design:

Logistics

How will you choose a site for your school?
How will you get access without disruption?

Users

Who will use your school?
What will they need from the new building?

Sustainability

What environmentally friendly features will your building have?
How will they help?

Community

How will your building benefit the community?
What will be different from now?

Identify **one person** to feed back

Notes or sketches may help you

- Feed back your considerations to the class
- In groups visit each building design in turn and consider what further adaptations you would make
- Vote again on the design you like best.



Video Playlist

Video sources:

A (Michael), B (Sarah), I (Rhona) I Could Career Stories icould.com

C (Murray) careerstructure.com

D (Ewan) University College of Estate Management

E (Andrew), G (Luke), H (Bobby), J (Mark) [Go Construct goconstruct.org](http://goconstruct.org)

All accessed Aug 2017

THINK CONSTRUCTION

A Construction Project Manager

Here's Michael – Project Manager for construction consultants

Davis (4m) on his route to the industry via a Law degree

<https://www.youtube.com/watch?v=gzJufJcRj-E&t=3s>

B Design Manager

Here's Sarah – Design Manager, Bovis Lend Lease on her route via A-level re-takes to Architecture. Now she leads a team of them on big projects:

<https://www.youtube.com/watch?v=SioRICUPHIQ&t=26s>

C Contracts Manager

Here's Murray – Contracts Manager, Pendrich Height Services

former steeplejack and stonemason. Now he's glad to be in the office.

<https://www.youtube.com/watch?v=SPOXxNaF4gY&t=151s>

D Building Surveyor

Here's Ewan – Building Surveyor - he says his job is like being a "house doctor"

<https://www.youtube.com/watch?v=VAQD00TU438>

E Building Information Modelling (BIM) Manager

1. Here's Sonia – she is BIM Strategy Manager for HS2 and shares what she does ..

<https://youtu.be/Gk7JlvzwcI>

2. Here's Andrew – Head of BIM on how it is fast becoming integral to the building process.

https://www.youtube.com/watch?v=LU4BFjJ_BHA

F Sustainability Specialist

Here's Szilvia on her route to a sustainability career via a psychology degree

<https://youtu.be/JDgChNb14wM>

G Construction Site Manager

Luke's a trainee site manager. He's never looked back after Uni. He's even wearing a tie.

<https://www.youtube.com/watch?v=qOwTjG1GlvQ>

H Structural Engineer

1. Tom's a site engineer. Here's how he got started:

<https://youtu.be/GfHrEDD4VDA>

2. Bobby's a civil engineer. Here's how he deals with it

<https://www.youtube.com/watch?v=thSn3TcK1C8>

I Quantity Surveyor

Rhona's a trainee QS. Studying while working. Here's her story:

<https://www.youtube.com/watch?v=3Z01GIgo6dg&t=20s>

J Construction Planner

Mark works for Shepherd Construction. He shares what it takes to be a planner – great communication!

https://www.youtube.com/watch?v=xx4_iCDnSio

- ✓ **Access the YouTube Playlist for these videos [here](#).**
- ✓ **For additional video Case Studies look at this other [Youtube playlist](#).**

THINK CONSTRUCTION



More information at
<https://www.ciob.org/campaigns/think-construction>