Student Handbook

For Inspire Engineering Mentoring Programme Mentees

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LONDON TRANSPORT MUSEUM | 39 WELLINGTON STREET, LONDON WC2E 7BB

Transport for London

Table of Contents

Orientation Agenda
For Mentees and Parents/Guardians

I. Description of Programme and the Motivation behind it

II. Structure of the Programme

III. Goals/Objectives for the Students

IV. Roles and Responsibilities

V. Mentor/Mentee Relationship

VI. Questions about the Programme

VII. Paperwork Completion

Adapted from materials provided by The Maryland Mentoring Partnership, *Vision to Reality Mentoring Program Development Guide*, and California Governor's Mentoring Partnership.

Parent Guidelines and Ground Rules

Following are some basic guidelines and ground rules for helping to make your child's mentoring relationship a success. If you have questions or concerns at any time, please contact the programme coordinator, *Name* at *Phone number/ email address*.

Structure of Programme

- Your child will be grouped with two other children from their class, and their group will be matched to an engineer from Transport for London. All mentors have been CRB background checked. Meetings between the mentor and the mentee group will happen once a month for an hour at Greenwich UTC's campus. Your child will sometimes be asked to do an assignment at home to prepare for a session with their mentor, and their mentee group will be encouraged (but not required) to meet during a free period at school to work on these assignments as a group.

- In addition to these sessions, students will have access to their mentors through an online learning environment called *Name of service*. Here they will be able to post questions on a public message board for mentors from the programme to answer. For safeguarding purposes, students will be unable to have any private interactions with programme participants through this service.

- The mentor's goal is to help your child grow personally and professionally. Because of this, the programme's lessons will focus on the engineering field (e.g., what engineers do on a day-to-day basis), professional skills (e.g., CV writing, interview skills), and personal skills (e.g., communication skills, problem solving).

Guidelines and Ground Rules

- If you feel uncomfortable with any aspect of the programme, or if something about the mentor relationship concerns you, please contact the programme coordinator.

- In order to maintain a safe environment for everyone, please do not attempt to contact your child's mentor personally through phone or email. If have any questions or concerns, please contact the programme coordinator.

- Remember that the mentor may have different opinions than you or your family, and you may disagree with him/her at times. Please try to be respectful of the advice the mentor gives your child. Likewise, we ask mentors to always respect family perspectives.

- If your child must miss a mentoring meeting, please contact the programme coordinator. Your child will not be able to make up the meeting with their mentor, but they may be able to do some of the activities covered individually or with the other students from their group. Please make every effort to ensure that your child can attend all mentor meetings.

Adapted from "For Parents with Children in Mentoring Programs, Guidelines, Ground Rules, and Answers to Questions," The Resource Center, August 1996.

Parent/Guardian Permission Letter

Dear Parent/Guardian:

Your child has been asked to participate in the Inspire Engineering Mentoring Programme offered at Greenwich UTC. In the programme, your child will be matched with an adult volunteer mentor who will meet him/her at the school. The mentor will be a CRB-checked Transport for London engineer who will work with your child to help them further explore engineering while helping them to develop personally and professionally. Your child will only meet with their mentor in a group setting, with two other student mentees present. Greenwich UTC feels that your child will greatly benefit from having another positive adult role model in his/her life and hopes that the relationship will lead to your child gaining a better understanding of engineering, while also growing personally and developing better professional skills.

We feel that these caring adult volunteers will be making an excellent contribution to the quality of education in our school. We strongly suggest that your child participate in this programme. If you are comfortable with your child participating in this programme, please grant your permission by signing below.

If you have any questions or concerns about this programme, please contact *Contact name* at *Phone number/email address*.

Thank you for your time. We hope this programme will be of great benefit to your child.

Sincerely,

_____

School Principal or Programme Coordinator

I give permission for my child, _____, to participate in the Inspire Engineering Mentoring Programme at Greenwich UTC. I have read the guidelines and ground rules for the programme and agree to follow them to the best of my abilities. I understand the nature of the school's mentoring efforts and reserve the right to withdraw my child from the programme at any time.

_____ _____

Parent/Guardian Signature Date

Student Mentee Roles and Responsibilities

Purpose

- To participate in a mentoring programme that will encourage you to grow personally and professionally
- To establish a positive, personal, and professional relationship with your mentor

Duties/Responsibilities

- Make a necessary one-year commitment for the programme to be a success
- Meet for one hour each month for 10 months
- Attend an orientation session
- Fill out a matching form
- Complete homework assignments as necessary

Time Commitment

- For 10 months, you will meet with your group and your mentor once a month for one hour. The day and time at which this meeting takes place will be set based upon the availability of your group and your mentor.
- In between mentoring sessions, you will sometimes be asked to complete homework assignments. These are meant to help you, so please make every effort to complete them. When encouraged to do so by your mentor, attempt to meet with the other students in your group at school during a free period. This way, you may work on these assignments as a group.

Placement

- All meetings will take place on Greenwich UTC's campus. A virtual learning environment called *Service name here* will also be available to you to interact with the programme's mentors through public message boards.

Benefits

- The program will help you to develop important life skills, learn about the world of work, and plan for the future, while also improving school attitudes and performance and building your self-confidence.

Contact Information

- *(Name of programme coordinator)*
- *(Phone number and/or email address)*

Adapted from the Royal Bank of Scotland/The First Tee Mentoring Program.

Evaluation Form Instructions

Below are instructions to help you understand when you will receive, complete, and pass in the evaluation forms that you will be completing throughout this programme. Your input will be extremely valuable in improving this programme for future years, so please fill out these forms honestly and thoughtfully.

Intended Learning Outcomes Form

- At the end of your orientation, you will be given an intended learning outcome form to fill out.
- On this form you will explain what you hope to get out of this programme.
- Once you finish filling out the form, please hand it in to the programme coordinator.

Nutshell Form

- The nutshell evaluation form is located at the end of this handbook.
- After each meeting, you will fill out how that month's lesson has affected you personally and professionally.
- You will create an action plan (a strategy to incorporate what you've learned personally and professionally into your plans for the future) twice: once after your sixth meeting and once upon completion of the programme.
- Each time you create the action plan, the mentor will photocopy your nutshell sheet. They will then pass it in to the programme coordinator.

Impact Form

- Your mentor will hand out an impact form at the end of your last meeting.
- On this form you will explain what impact the programme has had on your knowledge, skills, and motivation.
- Once you have completed this form, please hand it in to your mentor.

Engineering Descriptions

This document is meant to serve as a brief description of several major fields of engineering. It is important to realise that engineering is a very broad field and encompasses many types of work. For more extensive descriptions of these and other types of engineering, it may be helpful to review the materials available at http://www.prospects.ac.uk/types_of_jobs_engineering.htm.

Aerospace engineering
Aerospace engineers design, develop, and make all components of air and space crafts. This can include everything from airplanes and helicopters to military planes and missile systems to rockets and spaceships. The engineers work to design, develop, and test these kinds of machines and the technology designed for them. They also may work to make these technologies more cost-effective and environmentally friendly. Suggested video: http://www.youtube.com/watch?v=E9PszKehWhY

Automotive engineering
Automotive engineers work on designing, developing, and manufacturing automobiles such as motorcycles, cars, buses, and lorries. They also work to develop these automobiles' components – their bodies, engines, electrical systems, exhaust systems, etc. Automotive engineers may also be responsible for making these automobiles faster, more efficient, or more environmentally friendly. Suggested interview: http://icould.com/bkarticle/my-job-explained-automotive-engineer-at-jaguar-land-rover/

Biomedical (clinical) engineering
Biomedical engineers work on designing, developing, and testing medical equipment and new medical technologies. Biomedical engineers use knowledge from several fields, including biology, chemistry, mechanical engineering, and electrical engineering. Biomedical engineers may work to develop artificial body parts such as pacemakers, prosthetic limbs, or mechanical joints. They can also work to develop new medical technologies such as magnetic resonance imaging (MRI) or robot-aided surgery. Suggested video: http://icould.com/videos/james-g/

Chemical engineering
Chemical engineers primarily work in an industrial setting, using chemicals and raw materials to produce usable products. Chemical engineers may work to develop large-scale productions of certain materials, such as pharmaceuticals, paper, plastics, or petroleum. They may also work to develop new products, which can vary from things like toothpaste and hair care products to dyes for blue jeans and synthetic fabrics. Chemical engineers may also work to analyse large-scale productions to ensure that they are environmentally friendly. Suggested video: http://icould.com/videos/vanessa-w/

Civil engineering
Civil engineers are versatile engineers who design, plan, and monitor structural and environmental construction projects. They may work to build transportation-related structures such as bridges, roadways, and railroads, or buildings such as airports, athletic stadiums, and hospitals. They may also be responsible for designing and building sewage and water treatment facilities.
Suggested video: http://icould.com/videos/barbara-r/

Communications Engineering
Communication engineers work to design, develop, and test communications systems. These can include computers, satellites, teleconferencing equipment, GPS devices, television broadcasts, and radio. In addition to developing the systems' electrical components, communication engineers are also generally responsible for maintaining these systems and ensuring that they work properly. Suggested video: https://www.army.mod.uk/rolefinder/role/34/communication-systems-engineer/

Electrical engineering
Electrical engineers work to design and build electrical components. This can be on a large scale – such as the power lines that keep electricity flowing to homes and businesses – or on a small scale, such as developing the components of electronic devices. Electrical engineering also includes the major subfield

of computer engineering, which includes things like the development of more powerful computers or smaller and lighter laptops. Suggested video: http://www.youtube.com/watch?v=hqlN1L4BG6I

Environmental engineering
Environmental engineers work to protect the earth and the organisms living in it. This involves developing new ways of managing waste, recycling used materials, minimising pollution, and protecting wildlife. Environmental engineers work to prevent environmental hazards and also to manage ones that have already become a problem. They may also work on civil engineering-related projects, by designing things like water supply and wastewater treatment systems.
Suggested video: http://www.youtube.com/watch?v=cwgiKGb8pEI

Industrial engineering
Industrial engineers are able to design and maintain a complex system in order to optimise the overall factors of production. Industrial engineers may do things like oversee assembly lines or design procedures to increase the productivity of laptops. They may focus on how to make a factory more productive or how to make a production system as a whole more cost-effective.
Suggested video: http://www.youtube.com/watch?v=TB_a-nvJL2o

Materials engineering
Materials engineers work to develop and produce new materials, using a knowledge of chemistry and how materials interact on a molecular level. These materials can be used for a wide variety of applications, meaning that materials engineers are needed in a broad range of fields and at many different companies. Because of this, materials engineering can overlap with many other types of engineering, including aerospace, biomedical, electrical, mechanical, and structural.
Suggested: http://icould.com/bkarticle/my-job-explained-mechanical-integrity-and-materials-engineer/

Mechanical engineering
Mechanical engineers create effective machinery solutions for anything from small machines like game consoles, smart phones, and headphones to large machines like automobiles, and locomotives. They may also work on things like making robots, manufacturing, automated machinery, or mechanical joints.
Suggested video: http://icould.com/videos/aidan-l/

Software engineering
Software engineers work to design and develop the programmes that have become so important for our daily lives. These can include operating systems for computers, computer programmes, or smartphone applications. Software engineers focus primarily on writing the programme's code (lines of information that make up the details of the programme's execution) and designing algorithms (rules that dictate what the programme should do) for a programme.
Suggested video: http://icould.com/videos/stuart-w/

Structural engineering
Structural engineers work to develop safe, sturdy, and aesthetically pleasing structures. These structures can include buildings or other structures like bridges and oil rigs. Structural engineering is closely related to the fields of civil engineering and architecture. In addition to designing new structures, structural engineers may also work to maintain pre-existing structures to ensure that they stay safe, taking into account any new environmental issues that have arisen since the structure's construction.
Suggested video: http://icould.com/article/making-structures-stand-up-life-as-a-structural-engineer/

Transportation engineering
Transportation engineers (also known as transport planners) work to maintain currently-existing transportation systems, in addition to designing new ones. These systems primarily include roads and railways, but may also include systems designed for buses, cyclists, aircraft, and pedestrians. Transportation engineers are also responsible for researching current traffic patterns, using computer models to analyse them, and predicting what effect new developments may have. Suggested website: http://www.tomorrowsengineers.org.uk/transport/

ENGINEERING CHOCOLATE

Download details of this and other tasty activities for 11–14s from our website... and find out more from the engineers who think their job is a treat!

Tomorrow's Engineers

Raw cocoa beans
The starting point for chocolate

Cocoa powder
For drinks and cooking

A chocolate factory
Rolling out the chocolate

Unwrapping the chocolate
Getting ready to eat!

Rachel Cooke, Chemical Engineer
Chemical Engineers are involved in many stages of chocolate production. They help to develop and design processes and equipment used to make, mix, cook and package ingredients and products.

Ian Walsh, Environmental Engineer
Environmental Engineers make sure all processes are efficient and environmentally friendly. That includes reducing waste and pollution, and trying to save energy.

Belal Habib, Packaging Engineer
Packaging Engineers work out how best to package chocolate. They need to make sure it doesn't get damaged when its taken to the shops – and they make sure it looks attractive enough to buy.

Andrew Green, Biochemical Engineer
Hygiene is extremely important when making any food. Biochemical Engineers use scientific principles to make sure that the chocolate isn't contaminated by bacteria during production.

Visit www.tomorrowsengineers.org.uk/careers

ENGINEERING LIVE MUSIC

Tomorrow's Engineers

Download details of this and other activities for 11–14s... and hear from the engineers whose jobs are music to their ears!

Ben Corbett, Sound Engineer

Sound Engineers are responsible for the sound quality at a live music concert. Microphones, amplifiers, speakers and mixers must be set up so everyone experiences the best sound possible.

Helen Leathem, Lighting Technician

Lighting Technicians set up and operate lighting equipment. Their work is really important at a live music concert. Colours, effects and movement help to create the right atmosphere.

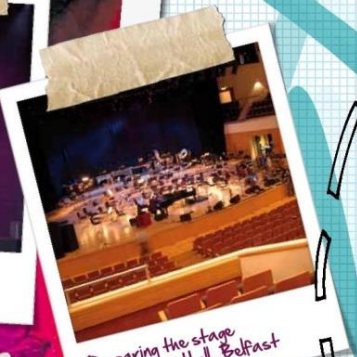
Keith Chew, Structural Engineer

Structural Engineers design structures. That includes theatres, stages and all the rigging that holds up the lights and props. They have to make sure they don't collapse, bend, twist or vibrate too much.

Eilish McGeehan, Electrical Engineer

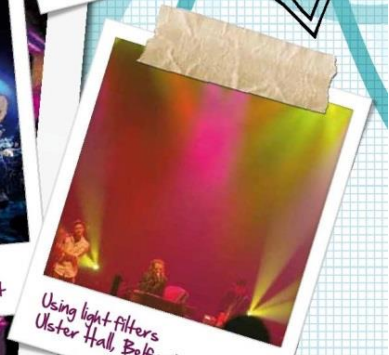
Electrical Engineers design and calculate how to connect everything electric at a concert. That includes all electrical appliances and lights – sometimes the stage even has electric moving parts.

An outdoor festival
Belfast Botanic Gardens



Preparing the stage
Waterfront Hall, Belfast

The full band
Grand Opera House, Belfast



Using light filters
Ulster Hall, Belfast

Visit www.tomorrowsengineers.org.uk/careers

Engineering Objects

Create your own poster that shows an everyday engineering object like the ones you have looked at today (concert, chocolate).

Explain how many different types of engineers you think would be involved in the development of this product.

Keep in mind:

Engineering is used in many stages of a product:

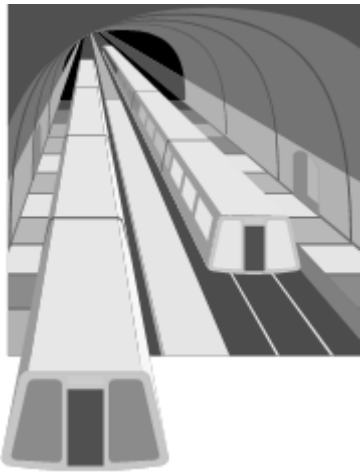
- Design
- Manufacturing
- Testing
- Repair
- Maintenance
- Improvements

Possible Items:

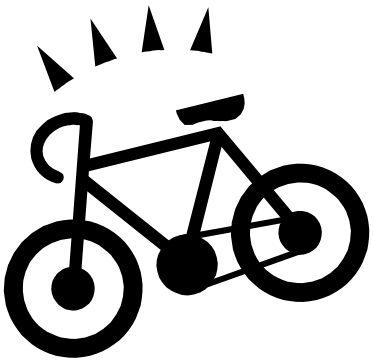
- Sports Equipment
- Musical Instruments
- Clothing

Solving Transport Problems

Identify the Engineering Problems



Identify Engineers to Solve Problems



Identify Possible Solutions

Career Path Overview Information

University

You may choose to go to university to study engineering in depth. Engineering course's requirements vary, but you will generally need A-levels in maths and physics. University is usually quite expensive but leads to more career options and higher earning potential. It takes 3-4 years to earn a bachelor's degree or 4-5 years to earn a master's degree, which can sometimes include a year working in the industry. After university, you can go on to become an incorporated or chartered engineer (see next page).

Apprenticeships

The premise of apprenticeships is that you will learn while working, meaning you can begin to earn money immediately after college. Apprenticeships take 1-4 years to complete, and you will usually earn vocational qualifications during this time. There are three types of apprenticeships: intermediate (if you have D-G level GCSEs or level 1 vocational qualifications), advanced (if you have A*-C level GCSEs or level 2 vocational qualifications), and higher apprenticeships (if you have A-levels or level 3 vocational qualifications). To be competitive for apprenticeship positions, you will generally want to have at least 5 A*-C level GCSEs. Apprenticeships can lead to you becoming engineering technicians or incorporated engineers.

Vocational Qualifications

You may choose to pursue vocational qualifications during or after your time in college. As explained by icould.com, "Vocational qualifications are directly related to a particular job or area of work. They focus on learning skills and hands-on training, and often are assessed by practical assignments, rather than exams." These degrees generally would allow you to become an engineering technician. There are many different kinds of vocational qualifications that can be awarded in the engineering fields. Some of the most common qualifications are:

- BTEC Nationals are qualifications that range from level 1 (entry-level learning) up through level 7 (professional learning). These qualifications are recognised by universities and employers in the related industry. They provide "real-world" training and can be taken at the same time or instead of GCSEs and A-levels.
- NVQs – National Vocational Qualifications – are qualifications which prepare you for a particular job. They are generally earned in the workplace.
- HNCs and HNDs – Higher National Certificates and Higher National Diplomas – generally are completed by working on them part-time for 1-2 years. After completing an HNC or HND, you can attend university to receive an honours degree. You will generally need good A-level performances to earn these qualifications.
- Foundation Degrees are generally designed with the employers' help and are intended to prepare you with the skills necessary to work in those employers' fields. They are intended to combine academic study and work-based learning and generally take 2 years of full-time work to complete. With a foundation degree, you can attend university for one extra year to receive an honours degree.

This document developed using the following websites:
http://icould.com/artide/choices-at-18-what-now/ (University)
http://icould.com/artide/career-routes-into-engineering/ (University, Apprenticeships)
http://icould.com/artide/understanding-vocational-qualifications/ (Vocational Qualifications)
http://www.edexcel.com/btec/New-to-btec/BTEC-Explained/Pages/default.aspx (BTECs)
http://fd.ucas.com/FoundationDegree/About.aspx (Foundation Degrees)

Career Path Overview Information Continued

Professional Registration Categories

There are three professional registration categories available to engineers in the UK: Engineering Technicians, Incorporated Engineers, and Chartered Engineers. According to the Engineering Council, all of these registrations provide the engineers with higher earning potential, more career options, recognition of their work, higher self-esteem, life-long learning, and letters after their name (EngTech, IEng, or CEng).

Engineering Technicians (EngTech)
The Engineering Technician registration is available to you if you have completed an advanced apprenticeship or equivalent programme, or have work experience and a level 3 BTEC diploma or equivalent qualification. Students without formal qualifications can also apply for Engineering Technician registration, but they will have to demonstrate that they have achieved the proper level of competence through work experience. According to the Engineering Council, engineering technicians "solve practical engineering problems. They are professionals with supervisory or technical responsibility, and apply safe systems of working. They contribute to the design, development, manufacture, commissioning, decommissioning, operation or maintenance of products, equipment, processes or services."

Incorporated Engineers (IEng)
The Incorporated Engineer registration is available to you if you have completed a bachelor's or honours degree, an HNC or HND, a level 4 NVQ, or equivalent work. Incorporated Engineer status allows a person to be recognised internationally as a professional engineer. According to the Engineering Council, "Professional registration as an Incorporated Engineer (IEng) recognises your proven competence, commitment, skills and experience." and "In particular, IEng registration shows your employer and peers that you have demonstrated a commitment to professional standards, and to developing and enhancing your competence."

Chartered Engineers (CEng)
The Chartered Engineer registration is available to you if you have completed a master's degree or doctorate in engineering, or an equivalent level of competency. According to the Engineering Council, Chartered Engineers are part of a "technological elite" and they "develop appropriate solutions to engineering problems. They may develop and apply new technologies, promote advanced designs and design methods and introduce new and more efficient production techniques, or pioneer new engineering services and management methods. The title CEng is protected by civil law and is one of the most recognisable international engineering qualifications."

This document developed using the following UK Engineering Council webpages:
http://www.engc.org.uk/engtech.aspx (Engineering Technicians)
http://www.engc.org.uk/ieng.aspx (Incorporated Engineers)
http://www.engc.org.uk/ceng.aspx (Chartered Engineers)

Getting into Engineering...

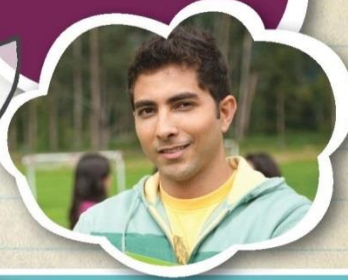
School
Science, Maths, D&T, ICT

6th Form / College
A levels (or equivalent)
BTEC level 2&3
HNC & HND, Foundation

Apprenticeships
Earn while you learn e.g. N/SVQ3

University
Bachelors (BEng)
Masters (MEng)

Work



Apprenticeship route

Sara Kieran Salim

Sara was selected for an apprenticeship after responding to an advert on the internet. She completed her Higher National Diploma (HND), studying one day a week whilst working. She is now employed as a fully qualified engineer and will shortly complete an engineering bachelor's degree (BEng).

"Being an apprentice was absolutely brilliant. Not only do you sit in the classroom and gain theoretical knowledge, but you have the opportunity of going out there and gaining real-life, practical experience whilst getting paid! I had fantastic and fully qualified engineers around to help me if I was ever struggling with something."

University route

Philip Deakin

Philip completed A levels (including maths and physics) and studied for four years at university where he obtained a master's degree (MEng). Phillip now works as a Wellsite Drilling Engineer on a North Sea oil rig.

"I've test driven an Aston Martin round a track at 170 miles per hour; had the chance to have a flight in a Eurofighter Typhoon; and had dinner with the Red Arrows pilots. These were all amazing experiences for me which shows there are really exciting sides to engineering that young people don't hear about."

www.tomorrowsengineers.org.uk

Career Route Map

for Engineering in England

Tomorrow's Engineers

Entry points

Level 3
- AS/ A level
- International Baccalaureate
- Advanced Diploma (Engineering, Construction & Built Environment or IT)
- Advanced Apprenticeship
- BTEC National
- NVQ3

Level 2
- GCSE A* - C
- IGCSE A* - C
- Higher Diploma (Engineering, Construction & Built Environment or IT)
- Apprenticeship
- BTEC First
- NVQ2

Level 1
- GCSE D – G
- Foundation Diploma (Engineering, Construction & Built Environment or IT)
- Young Apprenticeship
- NVQ1

Further & Higher Education

- Engineering Council Accredited Master of Engineering (MEng) → Relevant work based learning
- Engineering Council Accredited Bachelor of Engineering (BEng (Hons)) → Relevant work based learning
- Engineering Council Accredited Bachelor Degree (BEng)
- Higher National Diploma (HND) Certificate (HNC) Foundation Degree (FD) Higher Apprenticeship → Relevant work based learning

Professional Qualifications

- Fulfil the Engineering Council Standards (UK-SPEC) → Chartered Engineer (CEng)
- Fulfil the Engineering Council Standards (UK-SPEC) → Incorporated Engineer (IEng)
- Fulfil the Engineering Council Standards (UK-SPEC) → Engineering Technician (Eng Tech) Or ICT Technician (ICT Tech)

Visit the Engineering Council's website at **www.engc.org.uk** for more information.

For details of all routes into engineering (including those in Wales, Scotland and Northern Ireland) go to

www.tomorrowsengineers.org.uk/careers

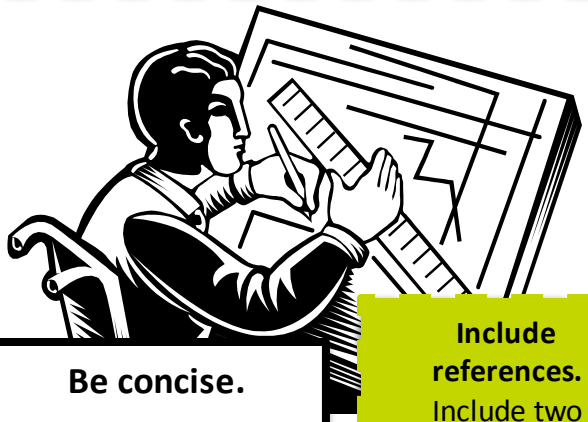
Top 10 CV Tips

Your CV should **include the following sections**:

- **Personal details** (name, address, phone, email)
- **Education and qualifications***
- **Work experience***
- **Interests**
- **Skills**
- **References**

*List in reverse chronological order (most recent first)

Tailor your CV to the job you are applying for. Emphasise the skills and experiences you have that are most relevant to the job you are hoping to get. This shows the company that you are genuinely interested in them and that you understand what they do.



Use **action words** to describe the things you've done. These make you seem more active and highlight your skills. Lists of these words can be found online. When applicable, you may want to use verbs like:

- Conducted
- Developed
- Evaluated
- Organised
- Presented
- Researched
- Trained
- Was responsible for

Your CV should be **no more than 2 pages long** on typical A4 paper.

Any longer and employers won't take the time to read it!

Be concise.

Make your CV complete, but avoid wordiness or long paragraphs of text. Use bullet points when possible.

If a CV is too dense, employers won't take the time to read through it.

Include references. Include two references when possible. If you have a job, be sure to include your current employer. If you haven't worked, you may consider using teachers or other adults. Ask their permission first though.

Proofread!

Spelling and grammar errors make a CV look unprofessional, and may cause employers to immediately reject it.

Be honest!

Don't lie about your experiences or qualifications.

If employers find lies on an application, they will almost always reject it.

Use the interests section to highlight your skills. Only include hobbies that demonstrate your ability to work with others or skills that are relevant to the job. Be sure to highlight any leadership positions you've held as part of these activities.

When making your CV, use a **clear layout** and an **easy-to-read font.** If a CV looks messy or cramped, an employer is not going to take the time to try and read it. Print your CV to make sure that it looks good on both a computer screen and on paper.

Sample CV (Example of a good CV with tips)

Adam Greys

Telephone: 07123 456789 Mobile: 07835 713355 Email: a.greys2023@nomail.com

23 School Lane
Higher Somerville
Shropshire
SP3 5TY

A concise, relevant profile can be included. Make sure this is tailored to the job you are applying for.

Highly numerate finance and accounting student with experience working in an international finance company. I am seeking a career in financial advice and planning.

Education

Use bold or italics to emphasise headings.

2010 – present **University of Ville**

BSc in Finance and Accounting (predicted grade 2:1)

Highly numerate course, accredited by the Association of Financiers that has enabled me to develop:

Be specific about relevant skills and competencies acquired on your course including general skills such as communicating with individuals and groups.

- Competence to professional body standards in financial planning and budget control techniques.
- Excellent working knowledge of financial and statistical packages, including SPSS and Stata.
- Ability to communicate researched findings in writing and to groups of students.
- Competence in all Microsoft Office packages.

In addition I have achieved:

Use positive language such as 'successful' 'excellent' and 'achieved'.

List relevant aspects of your course and how they relate to the skills you've gained that are appropriate to the job profile.

- Nomination for best finalist dissertation on Financial Planning in SMEs.
- Undertaken optional modules in International Banking and Investing in Pensions.
- Successful 6-week, in-course placement in Thrift Financial, working with teams managing new client communication, business forecasting and financial advice to new businesses.
- Election as course representative, involving communication with senior faculty staff on behalf of students during institutional audit.

2003 – 2010 **The Academy High School**

- **A-Levels:** Business studies (B), Economics (A), General Studies (A), Physics (C).
- **GCSEs** in ten subjects including Maths (B), English Language (A) and French (A).
- **Special achievements:** Duke of Edinburgh Silver award and captain of the cricket under-19s through which I developed leadership and teamworking skills.

Add previous qualifications and achievements if they demonstrate your ability to do the job you are applying for.

Use work experience employers as referees.

Relevant work experience

2012 (Feb - Aug) **Thrift Financial Services**
Provider of full range of professional services to new and small businesses in the Somerville area.

Provide relevant examples of your experience and include level of responsibility.

Invited back to work through summer holiday following university-organised placement.

Three month paid summer work experience: reviewed company procedures in business planning and forecasting team and prepared report for CEO including recommendations for annual updating.

2010 – 2012 (Part-time evenings during term time) **The Student Food Stop**
Late opening fast food service on campus.

Prepared microwave meals and snacks and was responsible for electronic debit machine, financial security procedures, cashing up and closure of premises. Involved completion of stock control inventories, re-ordering, cash accounting, as well as customer service and managing complaints.

2009 – 2010 (Full time) **Glittering Gifts**
High street retail outlet for gifts, cards, stationery and toys.

Make sure your dates are easy to see.

Was responsible for cash register, wrapping goods sold and managing electronic payments. Being employed for a full 12 months developed my understanding of the cyclical nature of gift buying and the need to plan stock, display and customer communications accordingly. Developed skills in forward planning, anticipating customer needs and meeting deadlines.

Voluntary experience

2011 – present Volunteer first aid giver with St John's Ambulance.

2012 Student buddy/mentor during induction week.

2008 – 2009 Coaching under-14s hockey team.

Provide less detail for older or less relevant information.

Other competencies

First aid Trained to use resuscitation and acute response techniques.

Languages French: Excellent conversational and written French.
German: Good conversational German.

Include skills not mentioned anywhere else in your CV.

IT European Computer Driving Licence (ECDL).

Use two full pages.

Referee details available upon request

JOHNNY SMITH
1 LONDON ROAD
LONDON, UK ZO5J 9NM
IAMAWESOME@EMAIL.CO.UK
012 3456 7890
123 4567 8910

OBJECTIVE

I HOPE TO BE HIRED BY YOUR COMPANY BECAUSE I THINK THE EXPERIENCE WILL HELP ME GREATLY IN MY PURSOOT OF A GOOD CAREER. I THINK I WOULD BE A VERY GOOD FIT FOR THE JOB.

EDUCATION AND QUALIFICATIONS

Greenwich Middle School, 2008-2012
Performed well in all my classes, particularly in maths and writing.

Greenwich College, 2012-2016

- A-Levels: History C, Psychology B, Physics C
- GSCEs: Physical Education A*, English B, Maths C, French D, Literature B, Geography F

WORK EXPERIENCE

TESCO express, 2011

Dealt with customers, used cash register, put products on the shelves, etc.

Greenwich Nursery, 2013

Worked with children. This was a very valuable experience as I was able to learn a lot from the other staff at the nursery. They were all quite helpful and patient with me as I was learning how to deal with the children. Things were quite hectic at times – with children running everywhere – so I learned how to multi-task very well. I also managed records and money which helped me to become responsible with sensitive information and money. This job helped me to grow a lot as a person and has made me realise how much I love children, even if they can be quite difficult at times. Even though I know this job is not particularly relevant to the job I hope to get with your company, I think many of the skills I learned from this job will help me succeed at your company as well.

ACHIEVEMENTS

I won several awards while in college. I was also the captain of our robotics team, which was quiet successful at the competitions we attended.

INTERESTS

I enjoy watching TV and playing video games. These games have been essential in making me a team player. I also play guitar and am in a band with several of my mates who practice in my garage.

SKILLS

I know some French – I can write it quite well, but am not very good at speaking it. I know how to use computers as I use email and Word daily. I also use other programmes like Excel and PowerPoint sometimes for school projects.

REFERENCES

References available on request.

Template CV (Sections Explained)

Ima Student
Home Address
Email address, home telephone, mobile phone

OBJECTIVE
Tailor this section to each job, company, or university that you apply to. State the exact position that you are applying for, and briefly explain why you would be a good candidate for the job.

EDUCATION/QUALIFICATIONS
Write this section in reverse chronological order, with your most recent schooling being listed first. Generally you would include the college you attended, along with universities if applicable. Mention any degrees or qualifications earned there. Briefly list any highly-marked or relevant A-levels or GCSEs, but avoid having long lists of every subject. If you have completed any major projects during your schooling, you may want to list them here.

WORK EXPERIENCE
Again, this section should be written in reverse chronological order. Include any jobs that you have had, and use your (brief) description of each to highlight the skills that you gained from them. This way, even if the jobs themselves are not relevant to the position you are applying for, the employer will see that you still have relevant skills.

ACHIEVEMENTS
This section is optional. If you have received any significant awards or have any other achievements that you think may be of interest to a potential employer, list them here.

INTERESTS
This section allows you to show that you are a well-rounded individual. It shows that you have skills outside of the classroom, and you should take advantage of that. List your favourite hobbies, but try to avoid any that are antisocial (don't involve interaction with other people). When possible, highlight how these hobbies help to develop skills that you will use in your employment – e.g., leadership or organisational skills. Volunteer work could be listed here as well, depending on the nature of the work.

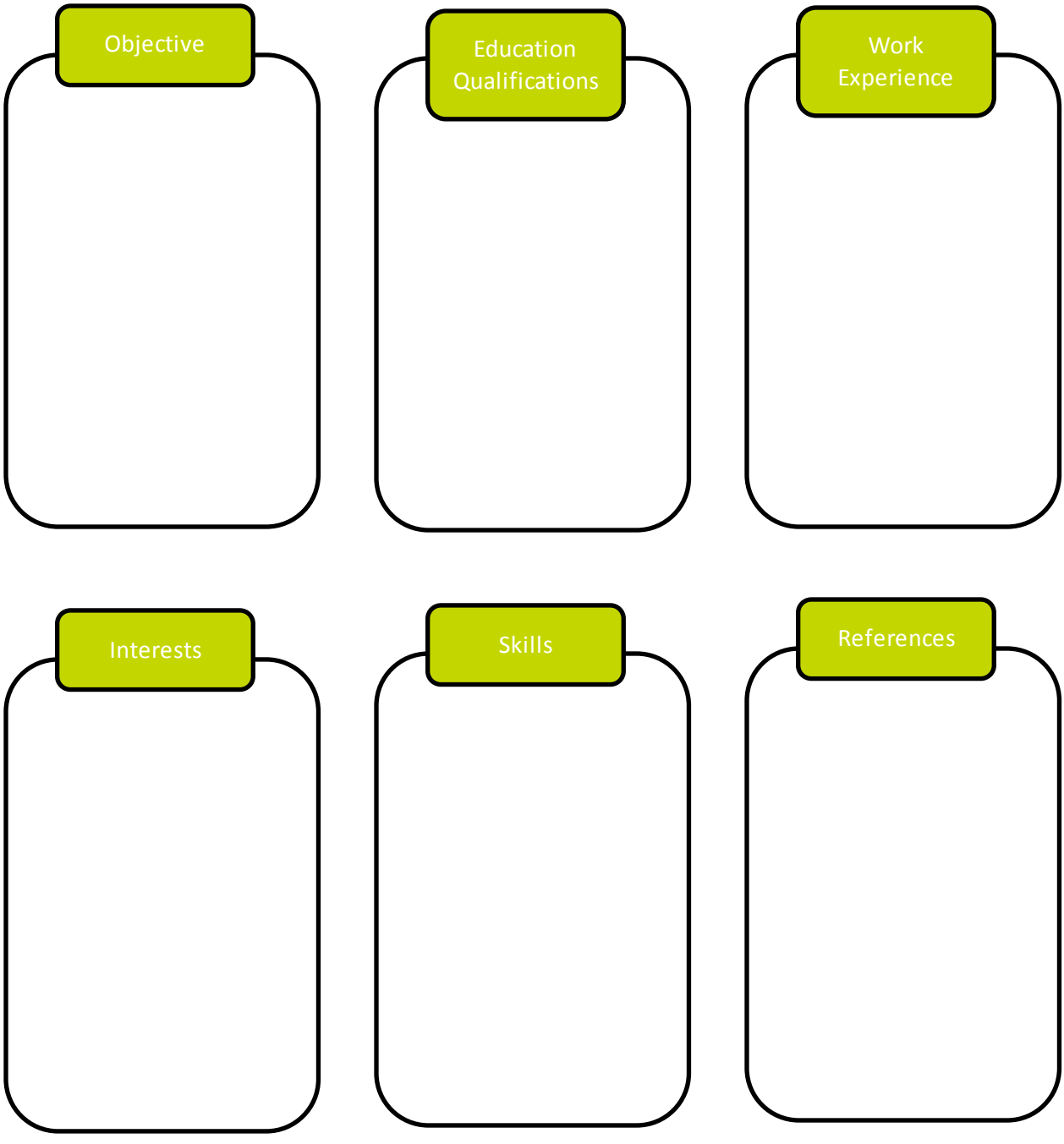
SKILLS
Here you should list any other languages you speak, and to what degree (fluent, conversational, intermediate or advanced, etc.). List major software programmes that you have experience with (Microsoft Word, SolidWorks, etc.) and – if applicable – any computer programming languages that you have experience coding in. Any other notable skills like playing an instrument could be listed here as well. It is also common to include your driver's licence if you have a full and clean licence.

REFERENCES
Whenever possible, include two references. If you need the space, you may write "References available upon request," but include good references when you are able to do so. If you have work experience, it is best to include references from your previous jobs. If you do not have work experience, you may use teachers or references from your hobbies. Always ask permission before listing someone as a reference on your CV.

CV Writing and Review

Brainstorming:

Writes ideas to aid in writing a successful CV.



Homework:

Using the template on the next page and your ideas from above, make a draft of your own CV and bring a printout of it to your next mentor meeting.

Interview Information

Three types of interviews

- **Structured**: This consists of a list of specific questions asked in order.
- **Non-structured**: This style uses broad, open-ended questions designed to have you "open up" and talk about yourself. It is more conversational in tone that the directed interview.
- **Behavioural**: This interview style is based on the premise that the best predictor of future performance is how you have performed or acted in the past. Questions will ask about specific situations from your past and how you acted in those situations. Behaviour-based interviewing is an essential component to today's interviews. Employers want to know how you handled past situations since past performance predicts future behaviour. These questions relate to skills, qualities, and situations that the employer believes you will encounter on the job; you will want to answer these questions based on how you handled similar situations in the past.

Behaviour -Based Questions

1. Describe a time when you were forced to make an uncomfortable decision. What did you do?
2. Give me an example of a time you had to make a quick decision without supervision.
3. Tell me about a bad experience with working in a team environment. How was it resolved?

What to Wear

Appearance is very important in an interview. Your interviewer will develop a visual impression of you within the first 10 seconds of interaction.

- **Think about the company culture**. In most industries business professional attire will be appropriate.
- **Be conservative**. You want to present a professional imagine. It is better to be overdressed than underdressed.
- **Watch personal hygiene**. Make sure your nails are clean, use deodorant, and limit perfumes.
- **Rethink the unconventional**. Eliminate colourful or funky hairstyles and body piercings.

What to Do After the Interview

As soon as possible, provide information requested by the interviewer such as references, transcripts or credentials. Follow up with a "thank-you" letter for the interview. This is an opportunity for you to sell your candidacy again to the employer and provide any additional information that did not come out in the interview. Writing the thank-you does not conclude your activities to obtain the position. You need to be persistent in the follow-up until you receive an offer, secondary interview, or rejection letter.

Documents adapted from Worcester Polytechnic Institute Career Development Center

WHAT TO WEAR

SUGGESTIONS FOR MEN:

Suits: dark color (gray, navy, black)
• Shirt: solid color
• Tie: conservative, not too bright/busy pattern
• Shoes: polished dress shoes (no boots)
• Socks: dark/matching socks (no white)
• Jewelry: no earrings – keep it simple

SUGGESTIONS FOR WOMEN:

Suits/Dresses: solid or coordinating style, skirts knee length or longer
• Blouses: nothing sheer or low cut
• Shoes: low heel, no boots
• Jewelry: simple, conservative
• Hair: neat and out of your face
• Makeup: subtle

Developing Your Elevator Pitch

An Elevator Pitch is a carefully-planned and concise introductory message about your professional self. It should define your skill sets, experience, and career hopes for the future. Your message should take about 60 seconds to deliver; the time it would take you to ride up an elevator. It should be focused on the specific and unique attributes that YOU can bring to an organisation/employer. An Elevator Pitch is also sometimes referred to as your 30 or 60 second commercial.

Why is it important?
Many times the first question an interviewer might ask you is, "Tell me about yourself." Having a planned answer to that question will ensure you feel confident and comfortable right from the start of your interview. Also, you never know when you might find yourself meeting someone who could be a great potential networking contact. Having a well-prepared Elevator Pitch will ensure that you are ready to market your skills and experiences given any opportunity to do so.

When to use it?

- Networking events (Alumni dinners, Professional Organisation events, etc…)
- Company Information Sessions
- Interviews – in answering the question: "Tell me about yourself."
- Any professional event where you are asked to introduce yourself.

Know Yourself
Take some time to do some self-reflection. Think about your key skills and experiences and what you have to offer a potential employer. Identify your career hopes for the future. Consider the following:

- **Skills**
  Examples include:
  - Technical skills – Proficient with AutoCAD, MatLab, Linux, C++; experience with Gel Electrophoresis, protein extraction
  - Communication skills – written or oral
  - Research and analytical skills
  - Leadership skills
- **Strengths** (i.e. what are you good at?)
  Examples include:
  - Motivating others
  - Taking initiative
  - Time management
- **Personal qualities**
  Examples include:
  - Hard worker
  - Enjoy working in teams
- **Accomplishments**
- **Values/beliefs** (i.e. things that would be important to you in your work life)
  Examples include:
  - Creativity
  - Relaxed pace
  - Outside work
  - Team environment
- **Career goals**
  Examples include:
  - Conduct cancer research in a laboratory setting

- **Academic performance**
  Examples include:
    - Projects/work within your courses
- **Outside Activities**

Know Your Audience
Research your audience. Customise your Elevator Pitch to the individuals you will be speaking to.

- What are the perceived needs of that particular employer/contact (i.e., what are they looking for in a potential candidate)?
- What immediate benefits can you provide?
- Why are you interested in the company or industry that person represents?
- Align your skills and experience with the needs of your audience.

Questions to Think About
This worksheet will help you identify key topics to include in your Elevator Pitch. Complete the questions below and then you will have created a first draft of your own Elevator Pitch.

1. What is your career goal?
_____
_____

2. What skills, strengths, or experiences do you have that would help you realise that goal?
_____
_____

3. What accomplishments prove you have those skills, strengths, or experiences? (Draw from all experiences – projects, internships, activities involved in, etc…)
_____
_____

4. What are you searching for in a job?
_____
_____

5. How can you immediately benefit the company?
_____
_____

Tips

- Write down and practice your Elevator Pitch.
- Ask for feedback from friends, teachers, mentors.
- It should not sound scripted – don't memorise it word for word. Focus on the key points/ideas so you can ensure to convey what is important to your audience.
- Make it conversational – don't feel that you have to get through your whole pitch when talking to someone. Allow for pauses and input from your listener.
- Consider recording your Elevator Pitch so you can hear what it sounds like.

Documents adapted from Worcester Polytechnic Institute Career Development Center

Sample Job Interview Questions

Do not attempt to memorise answers to each of these. Instead, think of key points you want to make and how to put those points in a positive, concise answer.

- Tell me about yourself.
- Describe your ideal job.
- What can you offer us?
- What do you consider to be your greatest strengths? Weaknesses?
- Have you ever had any failures? What did you learn from them? How do you define success?
- What 3 accomplishments are you most proud of?
- Have you had difficulty getting along with a former professor/supervisor/co-worker and how did you handle it?
- What do you know about our organisation?
- What job related skills have you developed?
- Would you be successful working with a team?
- Are you able to work on several assignments at once?
- What are your long-range career goals?
- What are your three best qualifications for this position?

If you wrote it on your CV, be ready to talk about it. Many times employers will ask questions directly about experiences or projects you wrote down on your CV to judge how well you can explain a subject and the type of technical language you use.

Most novice interviewees think there is a "correct" answer to any question the interviewer asks. This leads to unnecessary anxiety. Remember, what the interviewer wants is information that ties into the company and job requirements.

Questions to Ask the Employer

Asking the interviewer logical, well thought out, pertinent questions indicates a high degree of interest in the company. The interviewer will know that you have taken a professional approach in preparing for your interview. Companies want to hire professionals.

Conversely, questions that are illogical, shallow, vague and asked just for the sake of asking questions tell the recruiter you did not prepare for the interview or really are not interested in the company. Before the interview you should read the organisational literature, talk to others who may have knowledge of the company, and research the company in databases.

Here are some examples of questions you may want to ask:

- Please describe the duties of the job for me?
- What kinds of assignments might I expect the first six months on the job?
- What products are in the development stage now?
- What do you like best about your job or company?
- Where does this position fit into the organisational structure?
- What is the next course of action? When should I expect to hear from you, should I contact you?

These are examples only. If you do use these questions, understand their meaning, be prepared to explain what you mean and be prepared to answer questions that will arise from your questions. It will be to your advantage to develop your own questions and express them in your own style. Lack of preparation will do more harm than good.

Documents adapted from Worcester Polytechnic Institute Career Development Center

Elevator Pitch

1

2

3

4

5

Think About:

- **Skills and Strengths**
- **Personal qualities and Accomplishments**
- **Values / beliefs**
- **Career goals and Academic Performance**
- **Outside Activities**

Mock Interview

From each interview you hear, write down the positive takeaways and thing that could be improved upon.

Interview 1	Interview 2
Positives	**Positives**
Improvements/Critiques	**Improvements/Critiques**

My Interview Notes:

Current Engineering

Headline:

Summary:

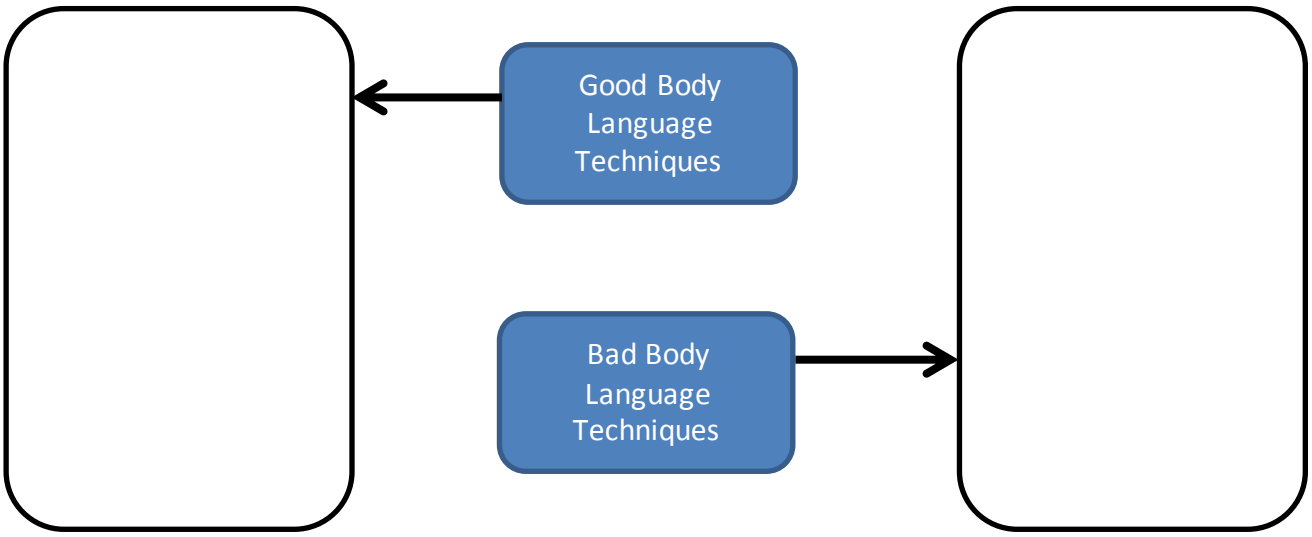
What did you find interesting about this engineering project?

What types of engineers do you think are involved?

Notes:

Communication

Body Language



Emails: Use the space below to practice writing a professional concise email to your principal.

Dear _____,

In the past meeting_____
_____
_____
_____.

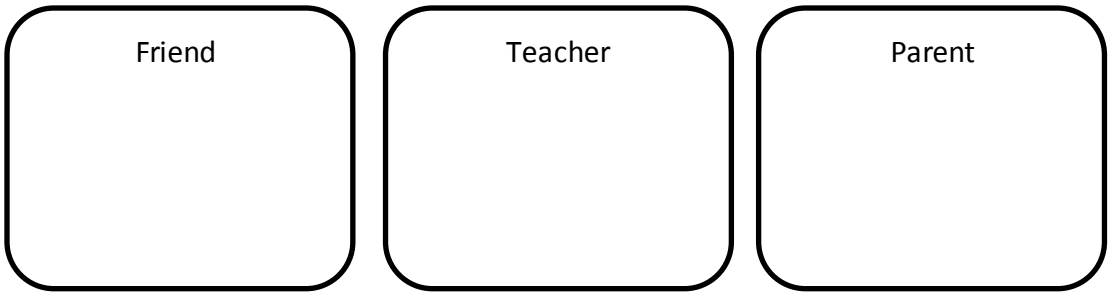
Kind Regards,

_____

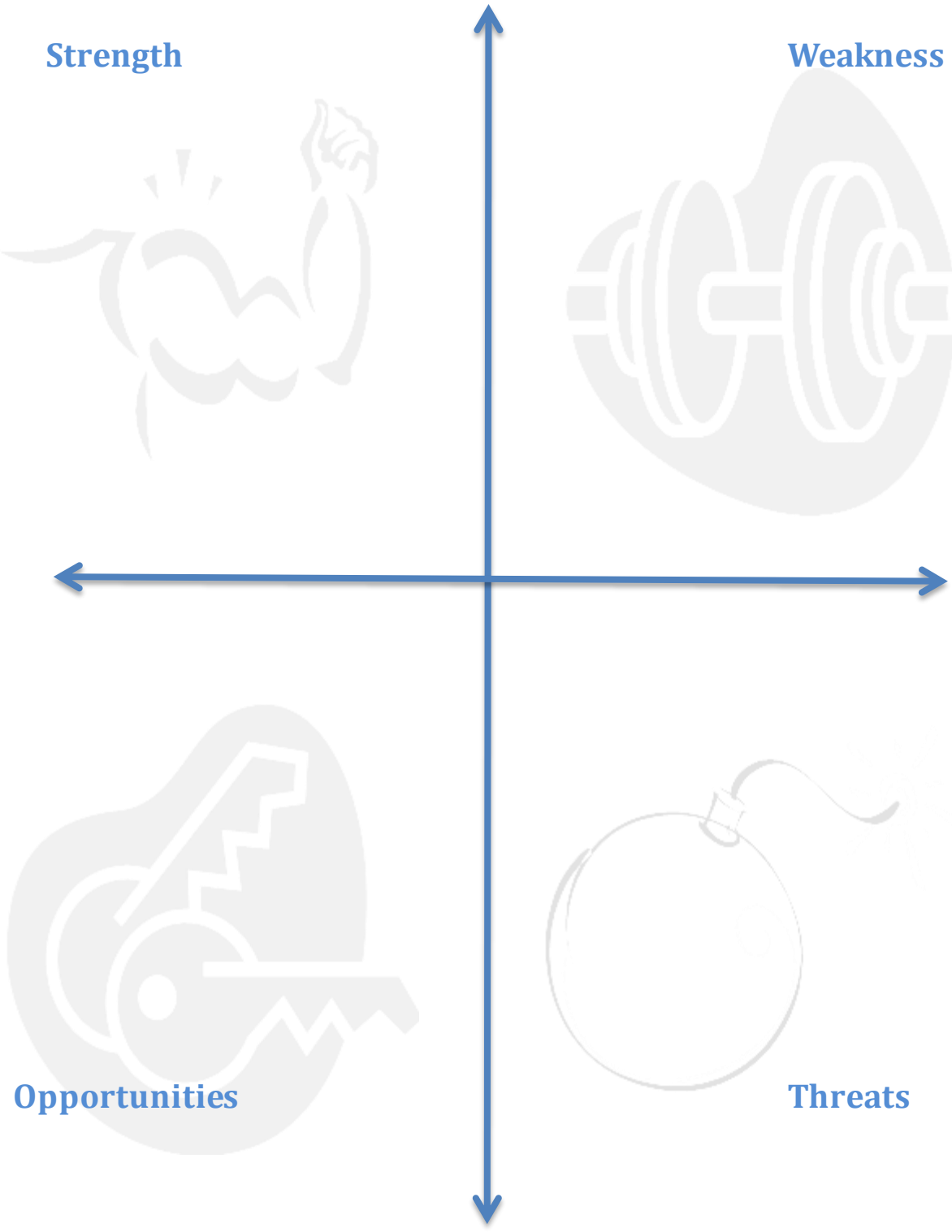
Summarise: In one sentence, summarise what you learned today.

_____
_____.

Audience: Brainstorm ideas of how your email above would change if you were to address the following people.



SWOT Analysis



SMART Goals

Personal Goal

Goal:

Step 1:

Step 2:

Step 3:

Professional Goal

Goal:

Step 1:

Step 2:

Step 3:

Problem Solving

Situations

Person 1 is a store clerk at the local grocery store. Person 2 is a customer looking for specific kind of cookie that the store does not have. Person 1 should work to solve the problem for person 1.

It's a Saturday afternoon and person 1 needs to stay home and work on a school project. Person 2, calls person 1 and really wants to hang out with person 1. Both people should work to get their desired outcome.

Person 1 is working on a group project with 2 other students. One of the other students does not do any work. What does person 1 do?

Person 1 is working on a group project with 2 other students. One of the other students is willing to work, but does not want to do any work with the group. What does person 1 do?

Methods

Trial and Error: Keep trying different solutions and improve them based on mistakes.

Abstraction: Chisel away the unnecessary parts of the problem and focus on the core details and then build up taking into account the other information.

Break and Conquer: Break the problem down into smaller parts and solve those separate parts then put it all together.

Brainstorming: Present many different solutions and then either reason or discuss why solutions may be better.

Research Based Methods: Research your problem to find previous cases, similar problems, or solutions. The research can be done via books, the internet, or even asking friends.

Attacking the Root Cause: This method solves the deeper issue or meaning instead of just the problem that results from it.

Consider these 3 questions when completing your nutshell evaluation sheet for this meeting.

- What method worked best for you?
- What was the best thing you did while problem solving?
- What is the problem solving skill you would like to improve on and how do you plan to do so?
- (Example: Listening to the other person, I will focus on listening to others before I respond)

Social Media

Social Media Sites (i.e. Facebook)

What are the positives and negatives of social media?

Positives

Negative

How will you create a professional image on social media?

Presentation Time!

Congratulations! You are only one meeting away from completing the mentoring programme! During this last meeting, the goal will be to focus on what you have learned over the course of this programme. Parts of this programme have focused on developing your professional communication skills, which you will hopefully use while preparing for your final meeting.

During this meeting, you will be giving a brief presentation about the programme. It is up to you what you would like to present on. Your presentation could be about:

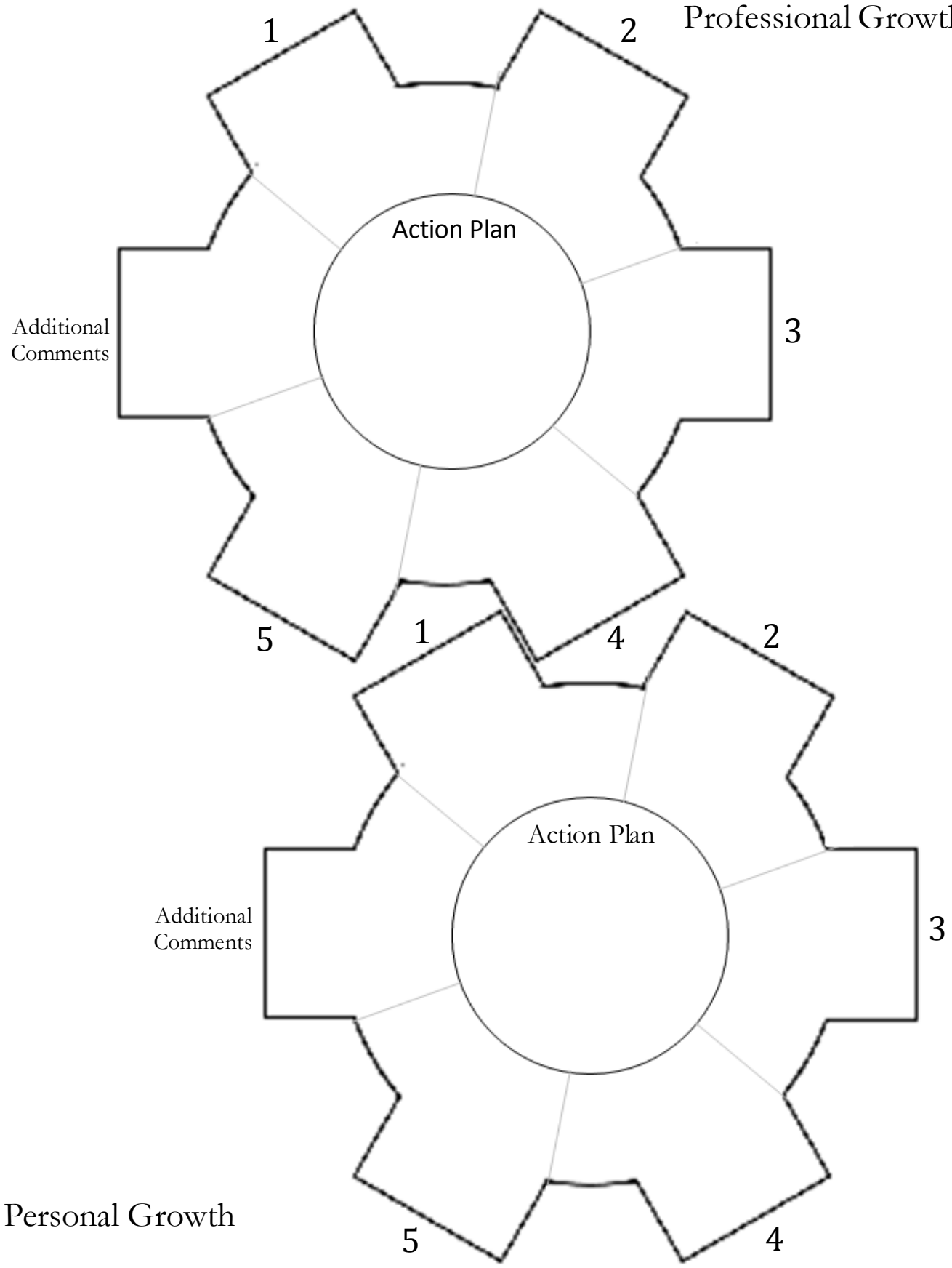
- What you've gained or learned from the programme and how you will use it moving forward
- How the mentor has affected your overall course experience
- What your plans are for the future and how this programme has influenced them
- Something you want to learn more about
- Something you learned during the programme that surprised you
- How your view of engineering has changed as a result of this programme
- Your own topic idea!

You will be preparing and giving these presentations in one of two ways – ask your mentor which one your group will be following.

Individual groups: Your group will be meeting by themselves, just like a normal meeting. Because of this, each of the students in your group will work *individually* to prepare a 5-minute presentation about one of the topics listed above. Think of a good way to present this visually to your mentor and the other students in your group (PowerPoint, posters, etc.).
Notes:

Large group: Your group will be meeting with other groups for your last meeting. Because of this, you will be working together with the other students in your group to make a 5-minute presentation about one of the topics listed above. Think of a good way to present this visually to the group (PowerPoint, posters, etc.).
Notes:

Nutshell Evaluation Sheet



Nutshell Evaluation Sheet