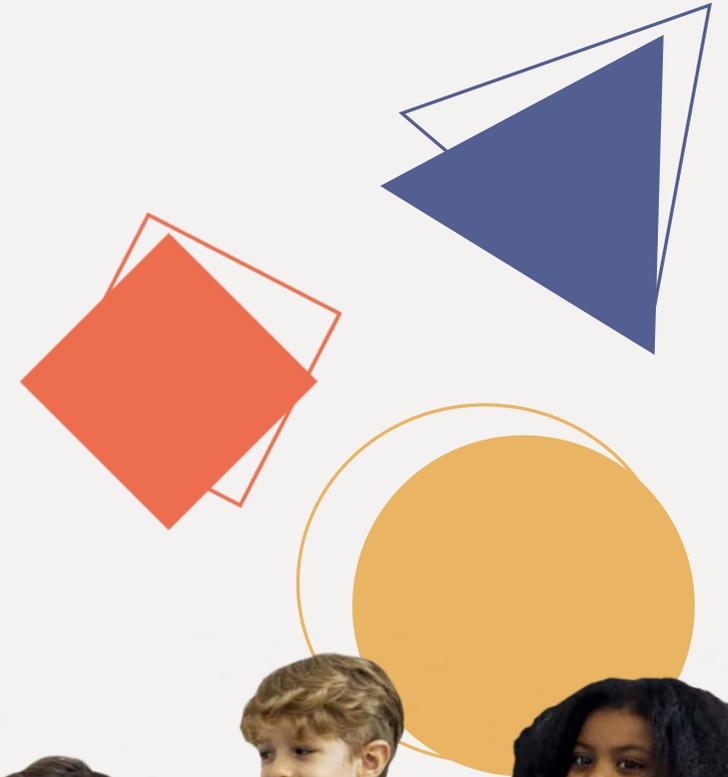


CEC PRIMARY PROJECT

Careers for 2030

Road Map 7



TRANSPORT



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Task 1

Please think about what type of career you would like in the future.

What 2 careers you would like to do.

Career 1

.....

Career 2

.....



Moving people or items from place to place



What is Transport? What does it mean?



The 4 means of transportation are airways, roadways, railways and waterways



A very brief look at the history of transport

How did we travel years ago?

CAR - The first commercial car was made in America - T-Ford in the early 1900's



Earliest humans had to use their legs or animals to get around.

The wheel was invented 5000 years ago which made a massive improvement in the way people travelled and it increased the speed of travel.

RAIL - The first steam trains in the 1800's were developed to carry heavy goods from place to place.

AIR - The Wright brothers (Wilbur and Orville), invented the first aeroplane in 1903



SPACE - The first space flight was achieved in 1961 by the Russians.

What careers didn't exist in this sector 10 years ago?

It has been predicted by 2030/35 a whopping 1 billion extra cars will join the 1.2 billion already on the roads. There will be a huge increase in emissions and traffic jams.
The future of cars is electric they produce NO emissions.
This will have an impact on the types of careers there will be in this sector.

APP Developers - 10 years ago there were no I-phones and therefore no Apps and no App developers.....now there are literally 100's of apps

Examples are:-

Google Maps - This is the most popular App and no matter where you are in the UK, Google Maps puts together a very detailed database of transport options and a smart route with live traffic information.

City Mapper - Same as Google Maps but focuses on UK cities.

Uber App - A taxi service that is a pre-paid App and literally takes you door to door.

Electric Car Engineers - cars wont be able to mend themselves, so engineer, mechanics and soft wear developers will be in demand.



What careers will exist in 10 years time in this sector?

In 10 - 20 years time automation and technology will come together!

It is predicted there is likely to be a shift of the workforce, not in labour reduction, but we will be doing different jobs.

Physical customer service robots will also provide other services such as catering and servicing refreshments. Again jobs will be created as software designers, engineers, and programmers.

Autonomous ships - will also need mending, so engineers, mechanics and software developers who work on these trains will be in demand.

Operators and drivers will be working remotely from call centres, offices or even from home. Examples include - A shipping control centre or a train control centre such as those used on the Dubai Metro red line.

Careers will include -

Driverless car engineer - these cars wont mend themselves, so engineers, mechanics and software developers who work on these cars will be in demand.

Autonomous trains - will also need mending, so engineers, mechanics and software developers who work on these trains will be in demand.



Customers services within the transport sector will be in the form of a chatbot which will be capable of written and spoken services in any language. This service will take ticket bookings, give advice and help with planning journeys and costs. Jobs will be created in software to create, programme, repair and update chatbots.

Autonomous aeroplanes - will also need mending, so engineers, mechanics and software developers who work on these trains will be in demand.



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The Future of Transport

We will be moving into new, smarter sources of energy and modes of transport!

Three themes for the next 10, 20 and 30 years are:



Smart technology

Electrification



Autonomy

The future of transport will look like this -



Autonomous Ariel vehicles (AAV's) - similar to drones but will be human carrying, designed for transporting passengers. They will remove congestion and save time.

The Ehang 184 is a concept for 5G-connection urban air mobility, controlled by a smart city command centre and is set to be the worlds first Air Taxi to debut in Qatar for FIFA World Cup in 2022.

Jobs created will be as designers, planners, programmers and in SMART technology.



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The future of transport will look like this -



Hover bikes - invented by hover surf in Russia - they act similar to a drone but look like a motorbike and requires a human operator. Again jobs will be created in design, programming, software and trained operators.



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The future of transport will look like this -



Self driving taxis - using ICT these taxis communicate with each other using SMART technology. These are being used in Las Vegas and can be programmed and pre paid by users. Again jobs will be created as designers, planners, programmers and in SMART technology



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The future of transport will look like this -



The Hyperloop - designed for travelling between cities inside a capsule or pods that travel at high speeds through tubes.

This is currently being trialled in Apex, Nevada, India, Canada and Mexico.

Jobs will be created as designers and programmers.



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The future of transport looks like this - Click on the link to see more!

Link 1 shows an autonomous pizza delivery robot

Link 2 shows an autonomous grocery delivery robot

Link 3 shows delivery with a "mothership concept"

<https://m.youtube.com/watch?v=ujzjZuhE92g>

<https://m.youtube.com/watch?v=AbQN-a2d1s0>

<https://m.youtube.com/watch?v=yUMOLzCsifs>



The future of transport looks like this - Click on the link to see more!

Link 1 explores the future of sky drive-2030- flying cars

Link 2 explores self driving cars

Link 3 explore sustainable air travel with KLM (via vlog)

<https://m.youtube.com/watch?v=Rmah9HPKbgQ>

<https://m.youtube.com/watch?v=eCJo-2yjtLg>

https://m.youtube.com/watch?v=cZJzD7bhE_Y



The future of transport looks like this - Click on the link to see more!

Links 1 and 2 explain how dpd are using electric vehicles as new delivery solutions with zero emissions.

You will hear more from dpd later.

<https://vimeo.com/389270648/38fb0f2f47>

<https://vimeo.com/392466902/faa18def9c>



Top 8 Essential Skills are:-

Listening



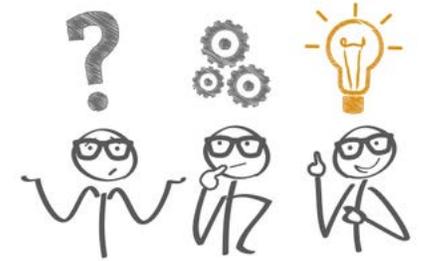
Presenting



Creativity



Problem Solving



Team Work



Leadership



Staying Positive



Aiming High



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You will now hear from a range of guest speakers
To include:



Grace Hayward - Assistant Delivery manager - Midland Metro Alliance

Olly Craughan - General manager - DPD

Jacqui Miller - Advisor for West Midlands Transport

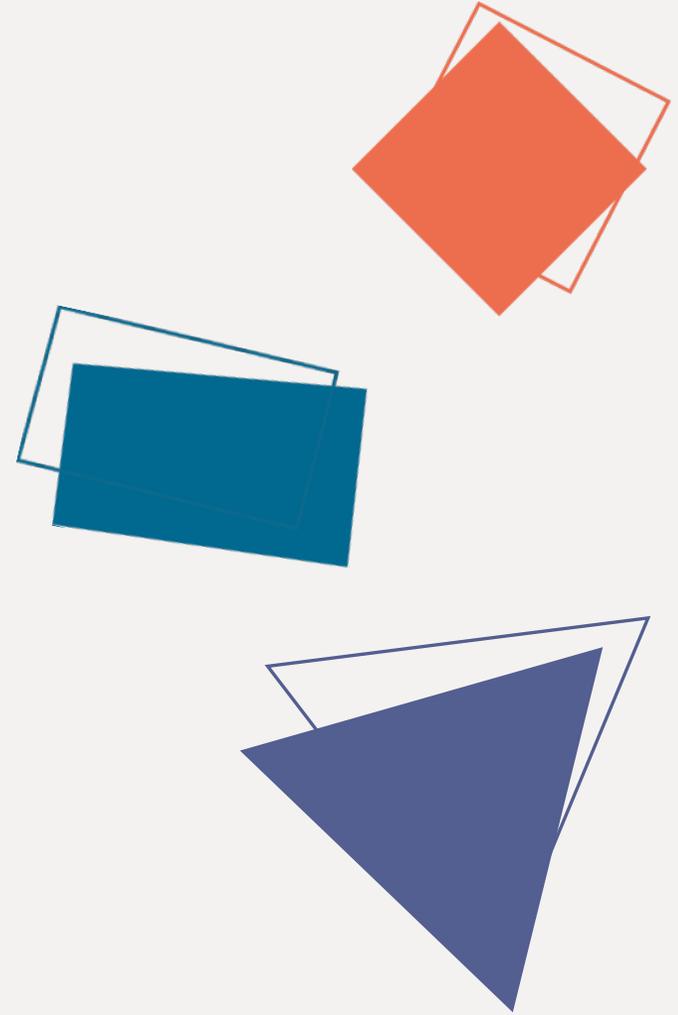
Chris - Driver customer services representative for West Midlands Metro





GRACE HAYWARD

MIDLAND METRO ALLIANCE



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My Career by Grace Hayward



I graduated from the University of Birmingham with a Masters Degree in Chemical Engineering in 2017. Chemical Engineering is all about making products; beer, medicines, shampoo on a very large scale for national distribution.

I then interviewed for graduate programmes and successfully gained a position on the Future Leaders Scheme with Colas Rail with its main focus being project management. It was a 2 year scheme allowing to you to rotate around the business.

My first rotation was at Rugby Depot for 10 months where I focused on technology and the competencies of freight train drivers across the UK. I even got to take a ride in something like the above.

I then took a 6 month secondment to Paris where in comparison to the freight and heavy rail, I worked on tramways and all things light rail. I was heavily involved with the construction process. The main aim was to learn from Colas Rail France and bring the best practices back to the UK.

I am now working on the 11km Wednesbury to Brierley Hill Tramway Extension. Very different to the urban areas I have previously worked in with 33 different structures to go over as shown in the picture opposite.

The final 8 months of my graduate programme was spent with the Midland Metro Alliance, the urban division of Colas Rail. The line was an 800m extension of the existing line between Birmingham City Centre and Wolverhampton St Georges to Wolverhampton Train Station.





What does a typical day look like for me?



The beauty of it – every day is DIFFERENT!

From project management meetings in the office talking budgets and organising labour, to putting the men to work and giving safety briefings – the life of an **Assistant Delivery Manager**.

The essence of a Delivery Manager is to ensure that the project runs on time, to budget with safety at the forefront of all actions being undertaken.



How will my role change by 2030?

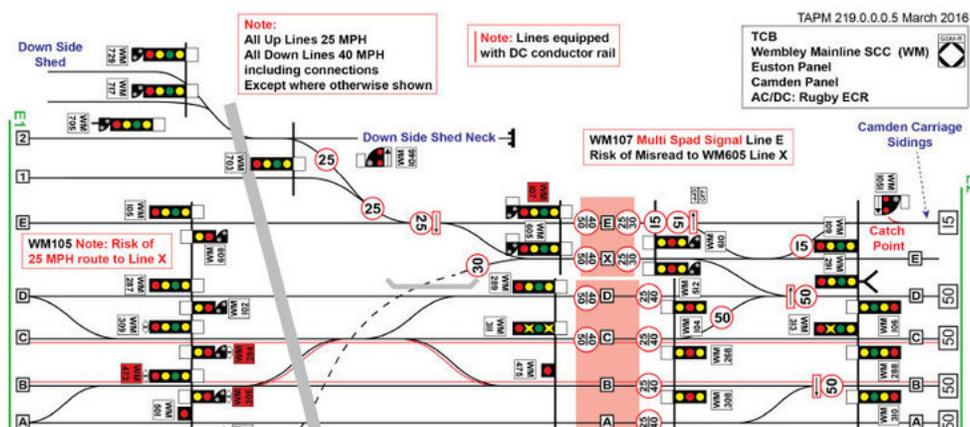


As a female construction manager I hope to climb the career ladder whilst having the opportunity to have time for a family. There is no reason why these two things cannot happen at the same time and work alongside each other. If you work hard enough and gain the respect of those around you, you will get everything you rightfully deserve and want.



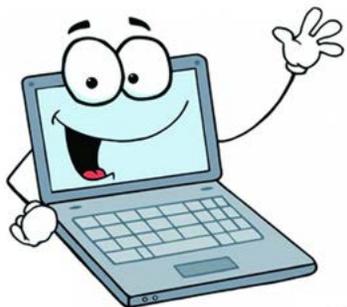


The use of technology now and how this may change



Reflecting back on my time at Rugby Depot and working closely with train drivers, it is important that the train drivers know where they are going. This is called 'Route Knowledge'. It is very different to how you drive a car. The driver must be tested every couple of months to ensure he knows the speed restrictions along the route he is going. This used to be done by remembering and revising drawings like the above. A very time consuming task as they would have to practice many times using a lot of petrol going up and down the track. However now, drivers can use virtual reality to test themselves. This has time and cost savings and drivers progress can be easily tracked digitally and in real-time.

This said – your guess is as good as mine as to where we can be in 50 years time! Look at the difference the last 50 years has had.



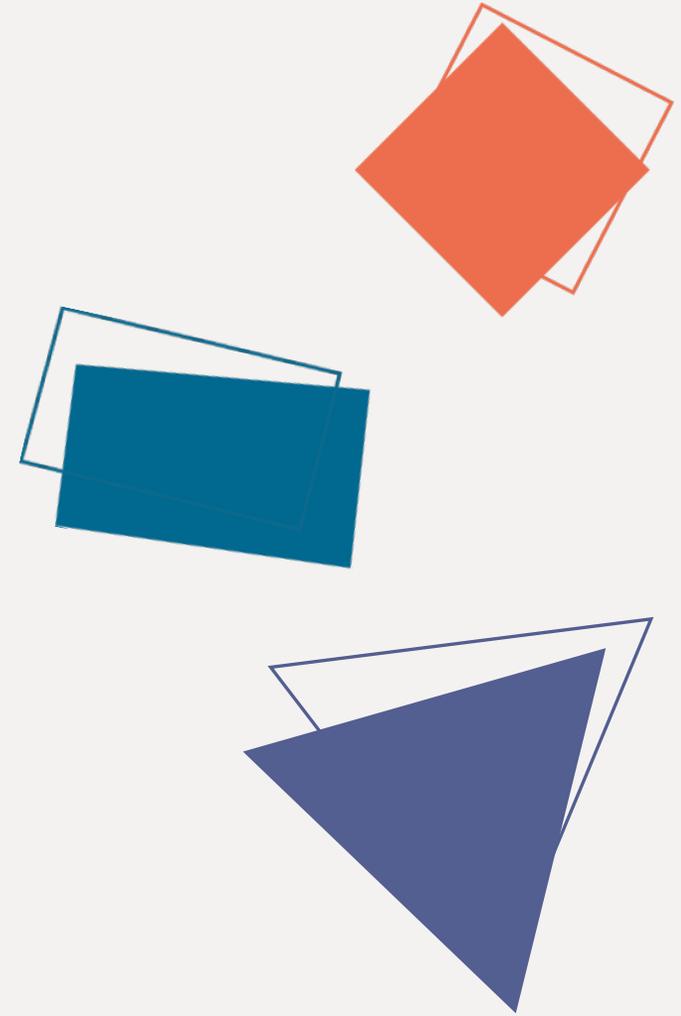
Closing comments

Try your hardest at school.
Find something you really enjoy and turn it into a career.
Focus and you will be successful.
Never think you are not good enough.
Do your research



CHRIS

WEST MIDLANDS METRO



Ryders Hayes
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My Career



I am a Driver Customer Service Representative and Crew Supervisor at West Midlands Metro.

I have been working at West Midlands Metro for over 2 years

My job is to take our customers to their destination and put smiles on everyone's faces. 😊



Operated by Midland Metro Ltd

What does a typical day look like for me?



Check tram before leaving the Depo.



Drive customers from point A to Point B.

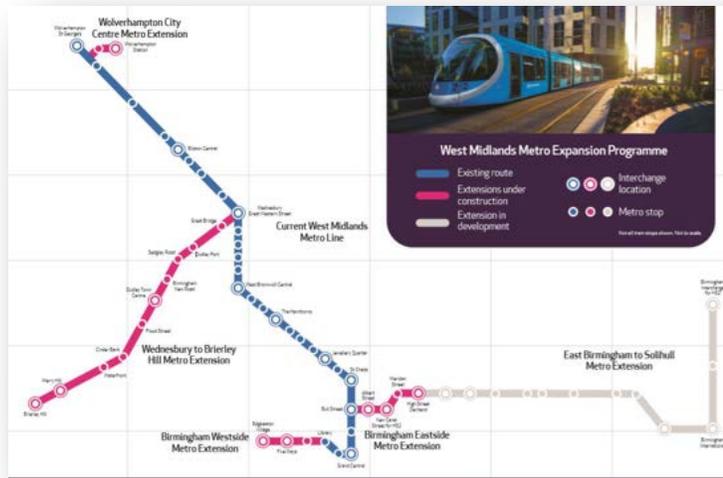


Check that everyone has a valid ticket and pass



Operated by Midland Metro Ltd

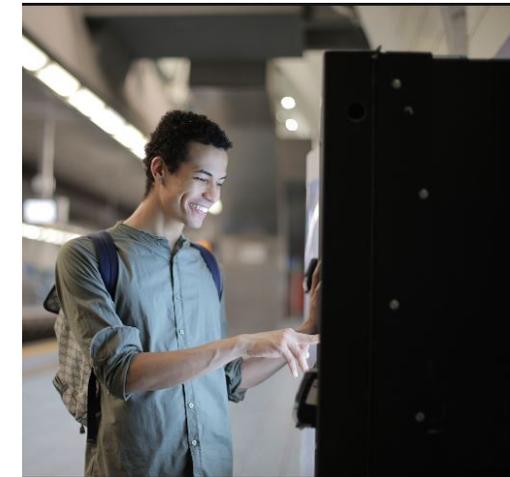
How will my role change by 2030?



Bigger Network



No Driver Trams



No Conductors



The use of technology now and how this may change



Now: Our Control Room



Soon: A new state of art control room will be built





Closing Comments

A tram driver is an exciting job.

A Tram driver travels daily between Wolverhampton and Birmingham meeting new people; students, nurses, teachers and more.

In the future we will have new trams, new technologies and more stops. 😊

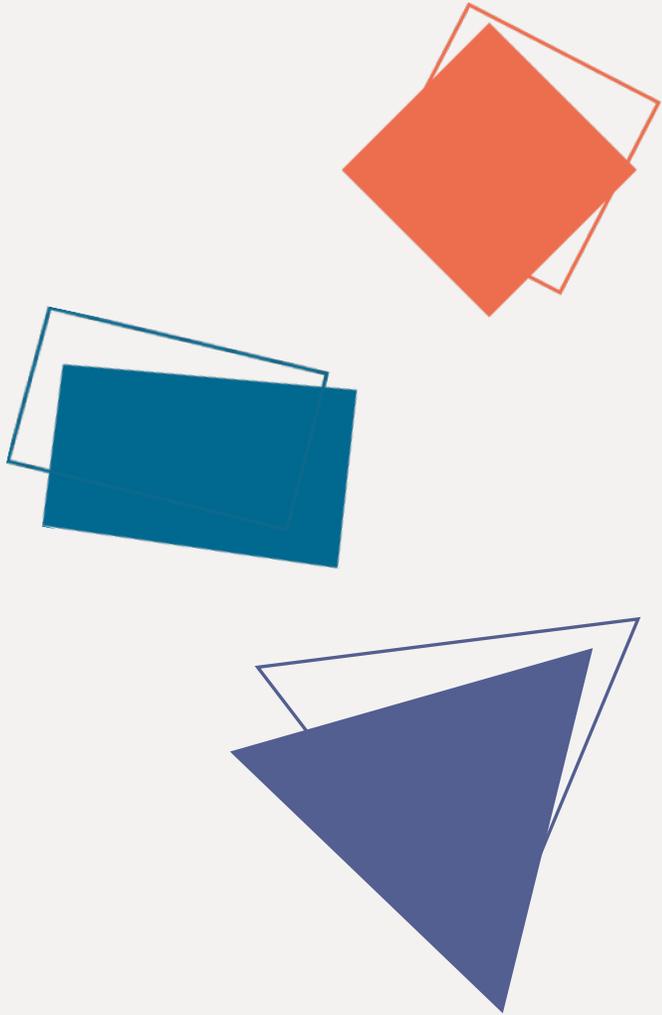


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OLLY CRAUGHAN

DPD GROUP UK LTD





• My Career by Olly Craughan

- My name is Olly Craughan
- I am employed by DPDgroup UK Ltd and joined in January 2012
- From 2012 to 2014 I was Operations Manager at our Leicester Depot managing the shift managers who ensured all parcels were processed and delivered in accordance to our processes and service standards
- 2014 - 2020 I was Depot and General Manager at our Lincoln Depot, which saw large growth, from opening only delivering 1,500 parcels on its first day to when I left delivering 13,000 each day.
- In February I was promoted to General Manager of Corporate Social Responsibility.
- This has been an amazing journey and now working in CSR enables me to help the business fulfil its environmental, sustainability and social strategy.





• What does a typical day look like for me?

-
- My day start when I wake up, I check my emails to see if there have been any issues and will review the volumes that are going through our Network.
 - I am at my desk from typically 08:00 and finish typically between 17:00 and 18:00.
 - Everyday I have a team video call at 09:00 and 16:00 so we can discuss our daily tasks, review the projects we are working on and the other calls we have to attend.
 - In my position as General Manager of Corporate Social Responsibility I am involved with all areas of our business so I could be speaking or emailing several different departments throughout the day depending on the subject.
 - I could be speaking to the Transport Dept about the next Electric Vehicle, our IT Department about minimising our printer and paper usage, or our HR Department about a staff well being initiative.
 - My team manage our website green.dpd.co.uk so need to maintain the relevance of the information on there, for example we need to update the amount of electric vehicles on our fleet.





• How will my role change by 2030?

- Businesses will offer a more flexible working environment, you will not be expected to work in an office 5 days a week in a traditional 9-5 working pattern. This may mean that you live miles away from the physical office because you will be equipped to work remotely.
- Meeting with people and communicating with them will change, using video calling and minimising travel, which will have a positive impact on the environment, reducing CO2 emissions.
- The EU has set a target to reduce Greenhouse Gas (GHG) emissions by at least 40% by 2030, so DPD is fully focused in increasing our Electric Vehicle fleet and ensuring that we deliver as many parcels by our zero emission fleet.
- My role and the impact of it will have grown between 2020-2030 due to CSR being extremely important in company strategy ensuring we are environmentally and socially active in our approach by minimising the damage of CO2 and pollution, and maximising our ability to help our staff and communities.

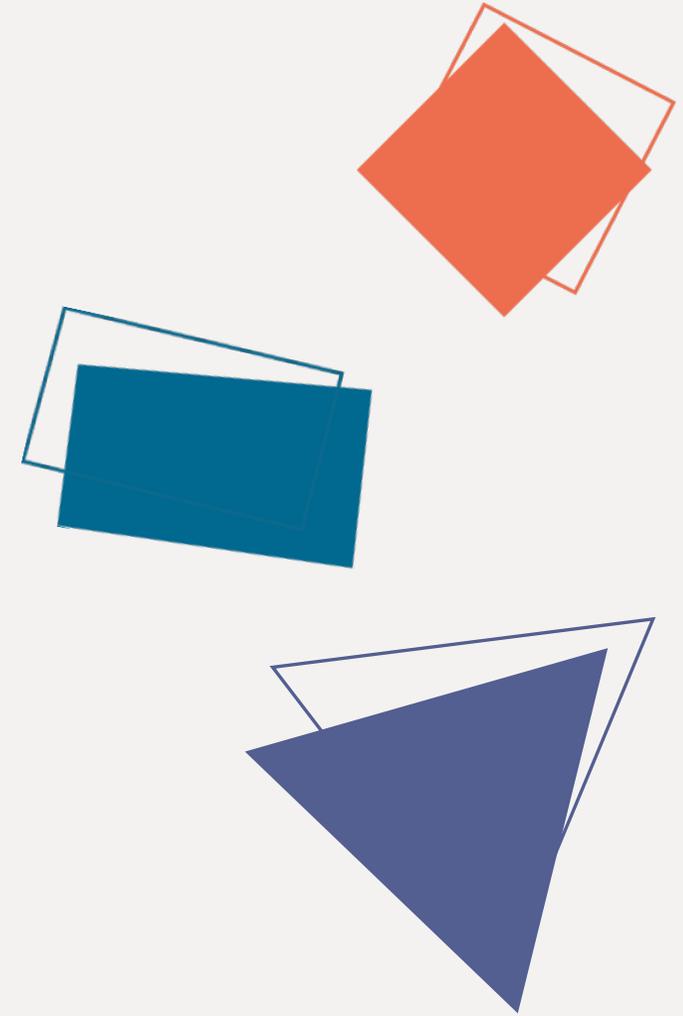
• Closing Comments

- Focus, listen and learn.
- Be brave and always ask questions if you do not understand.
- Have a plan, if you don't how are you going to achieve what you want?
- Don't give up easily.
- Treat everyone with respect.
- Always say thank you, people will remember it.
- Be positive and look at how a task can be overcome not how it can't be.



JACQUI MILLER

TRANSPORT FOR WEST MIDLANDS



Ryders Hayes
Teaching School



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My Career

Jacqui Miller

- Studies:** French and Business at University
- First job:** Selling steel from a French company to the UK - sometimes working from France
- 1999:** Joined Transport for West Midlands (TfWM) - working with businesses to help staff use buses, trains and trams
- 2012 - now:** Working with young people in schools, colleges and universities to help them travel around.



What does a typical day look like for me?

I normally travel around a lot in the West Midlands talking to young people about how they can get to different places more easily, safely and cheaply.

At the moment I am working from home and spend a lot of time phoning and emailing teachers and people in offices telling them about how travelling around is changing - we have new trams taking people to different parts of Birmingham and Wolverhampton and soon new routes will open in Dudley.

I enjoy letting people know what's happening - getting people connected to different places and to each other is really important.



How will my role change by 2030?

I have been working for over 30 years and there have already been lots of changes in the way I work. In my first job I shared a computer with 3 other people and we did not have mobile phones or email - we used a telex machine and a fax machine and posted out lots of letters.

In 2030 I hope to still be working with young people but maybe I will do more from my home office. When I do meet them at school, college or university I will be able to get to visit them more quickly as there will be better trams, buses and trains to take me to where they all are.



The use of technology now and how this may change

I have a laptop and a mobile phone now and so I am able to work anywhere that has a wifi connection.

Recently lots of my meetings have been over the computer - I think we will carry on doing some meetings like this but I do still want to be able to meet up with people.

I hope that you will be able to help us develop computers and mobile technology more in the future so everyone can use it whatever their age and how much money they have and we can all stay a bit more connected with each other



Closing Comments

If you want any help with travelling around the West Midlands

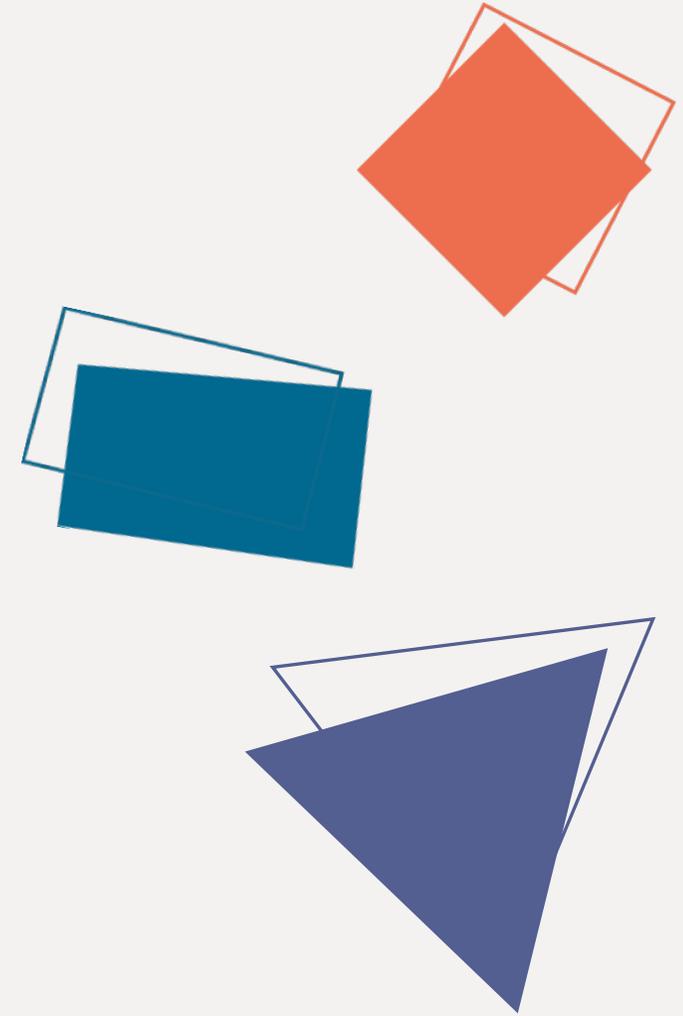
Please contact me on

Jacqui.miller@tfwm.org.uk



CLOSING COMMENTS

By.....



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Teaching School



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Task 2



Now you have listened to the presentation about Transport,
would you consider a career in this sector?

If yes, please give examples and say why you would have changed your mind.

Career 1

Why

Career 2

Why



Task 3

Has anyone inspired you today?

Why?

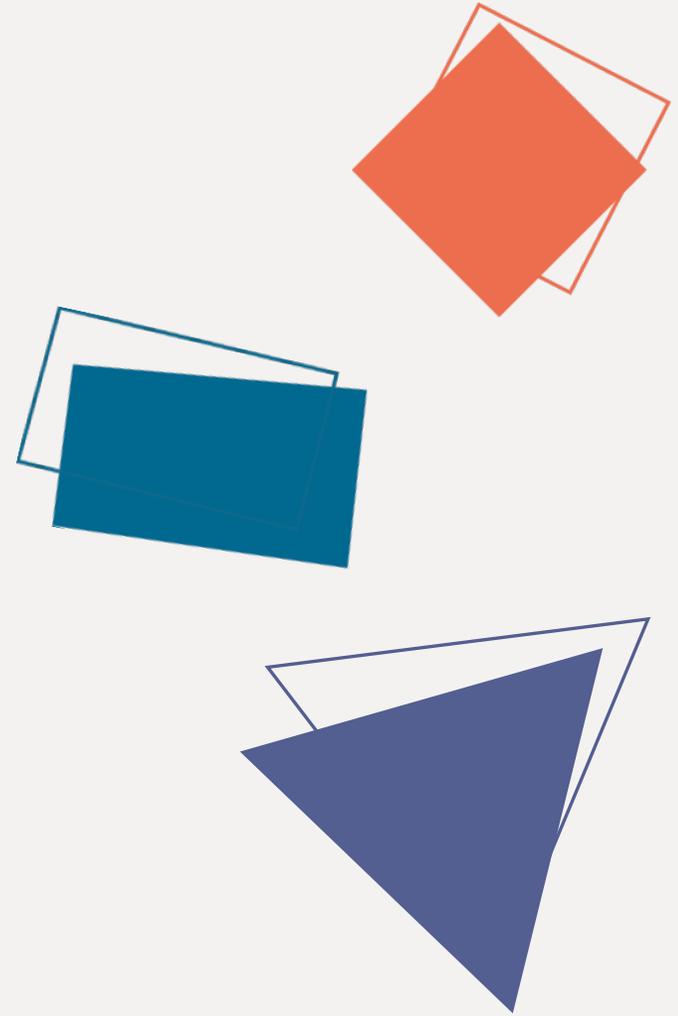
Or have you been inspired by anything
you have seen?

Why?





Questions & Answers



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