

WorldSkills London 2011

Teaching Resource Pack

Unit 8: Automobile Technology



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Unit 8: Automobile Technology

Session Overview

Background

WorldSkills London 2011 will be held at ExCeL London 5 – 8 October 2011.

In this resource pack learners will:

- Visit a careers event and/or skills competition
- Obtain information relating to potential careers in specialist skills areas
- Use the information to reflect on possible career choices

Starter Activity:

Working in pairs, learners evaluate their understanding of the Learning Cycle by applying it to a careers activity.

Learning Activity:

Learners carry out detailed research into career pathways and job roles. In addition, learners carry out salary and wage calculations.

Reflective Activity:

Learners are encouraged to reflect on their involvement in careers research and the skills required. They are encouraged to think about setting and reviewing targets and any changes they would make to ensure they successfully complete all of the set activities.

Developmental Activity:

Learners review their role and their feelings and attitudes towards the task. They are encouraged to question and challenge themselves in providing an appraisal of the development of their knowledge and skills.

Note:

The activities featured in this teaching and learning resource are based on visiting an external event such as a careers exhibition and/or skills competition. The materials can of course be adapted for use in a variety of teaching and learning situations.



Learner Checklist

Learners can:

- Apply the Learning Cycle and the associated learning processes to carrying out research into careers.
- Reflect on their use of their skills and identify learning from their reflections of completing a careers activity.





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Session Planner

The following suggested plan is based around 4 x 60 minute practical activity sessions which could take place at a careers event or skills competition such as The WorldSkills London 2011 Competition (www.worldskillslondon2011.com).

The sessions focus on developing learners' research and investigative skills by encouraging them to identify potential career and job opportunities within the automotive industry. The activities can be adapted to focus on particular skill areas as required.

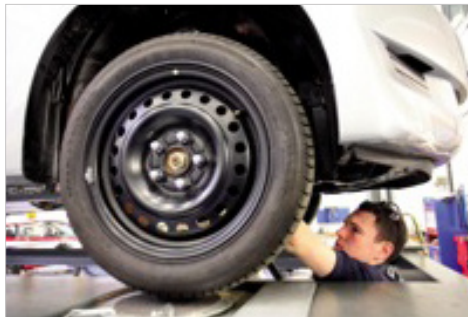
Topic	Timing	Learning Outcomes	Teaching Activities	Learning Activities
Session 1 Identifying career opportunities in the automobile industry	60mins	Learners understand the process of carrying out effective research and can identify, obtain and record sources of information appropriately.	Facilitation of practical research at a careers event of skills competition	Research and gather information on the types of job roles within given career categories.
Session 2 Identifying skills and qualities needed for a career in the automobile industry	60mins	Learners can identify and produce a checklist of the skills and qualities required to undertake identified professional roles.	Facilitation of group discussion of the generic skills and qualities required to undertake professional roles.	Production of a checklist identifying job roles and responsibilities, and the knowledge, skills and qualities required for the role.
Session 3 Calculating pay rates for jobs in the automobile industry	60mins	Learners are able to carry out routine calculations required to determine the yearly, monthly or weekly incomes for identified jobs after Income Tax and National Insurance deductions.	Review of the mathematics underpinning salary/wage calculations. Provision and review of appropriate worked examples.	Research into wage/salary expectations for identified roles. Calculation of salaries/wages.
Session 4 Reflecting on learning	60mins	Learners are able to reflect on all aspects of the practical sessions and identify what they have learned.	Facilitation of paired/group activities around the Learning Cycle and reflecting on the learners experience of the practical activities.	Completion of set activities which encourage learners to reflect on their experiences and identify learning.



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Activity Brief:

In this section you will begin to research and investigate possible careers and job roles in the automobile industry of specific interest to you. You will be given a project brief (see below) and will be required to complete a series of activities. Your tutor and/or advisors will be able to assist you.



Scenario

With over 150,000 people expected to visit WorldSkills London 2011 (www.worldskillslondon2011.com), a new hotel is currently in development next to ExCeL London and is expected to be open to the public in the Autumn of 2011. The hotel intends to offer their guests a car hire scheme in which guests can make use of a vehicle for personal travel. It will therefore require a fleet of cars which will have to be readily available and maintained to the highest standard.

You have been assigned as a member of the human resources team at ExCeL London and your role is to identify the particular jobs required to ensure that the hotel can offer the car hire system to its guests. You have been asked to focus specifically on the job roles needed in the care and maintenance of the vehicles. You are required to obtain as much information as possible and present your initial findings by completing the table below. You will then use this information to produce a more detailed report once you have completed your research.

The Transport and Logistic Managers are responsible for ensuring that the hotel meets all the transportation needs of the hotel guests in a timely manner. This will include ensuring that the hotel purchases a fleet of cars that are checked and maintained by a team of motor vehicle professionals. You will be responsible for identifying the key roles in the automobile industry for which staff will be required. These could include car mechanics and car body repairers for example.

Thought Box:

There are many job roles in the automotive industry. How do you intend to obtain the necessary information? Discuss this problem with one of your peers. Produce a list of the actions you need to take to complete this project.

Use the space below to make a brief note of your discussions
(continue on a separate sheet)

Learning Outcomes

In this activity you will:

- Identify the range and type of job roles within the automotive industry.
- Identify the skills and qualities required to undertake these roles.
- Work out salaries and wages.

Using the Learning Cycle

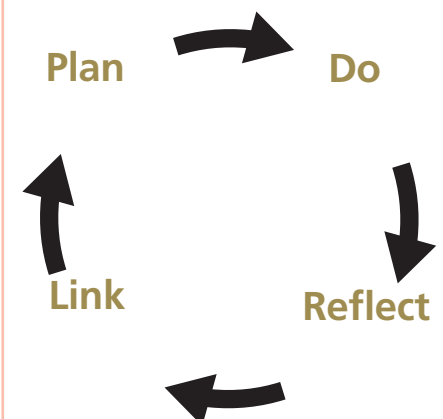
In this activity you will be applying the Learning Cycle to the given problem. Below is a brief description of the different stages as discussed in unit 4.

Doing: This involves carrying out and being aware of all the activities you are involved in during a project or task.

Reflecting: This involves looking back and summarising what you have done or what has taken place in the project or task.

Linking: This stage involves making links and connections with previous knowledge and/or skills and identifying possible solutions.

Planning: This will involve you identifying what you have learnt in order to make improvements. You will also review and decide next steps, structuring what you do in a new way and set targets.





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Starter Activity

By carrying out appropriate research at a careers or skills event (such as World Skills London 2011), identify the range of jobs for the following skills areas.

[Your teacher/ tutor and/or an Event Advisor can assist you with this at the event]



Skill Area	Job Roles
Vehicle Engine Maintenance and Repair	
Vehicle Electrical Maintenance	
Bodywork and Paint Repair	
Vehicle Maintenance (Car Valet)	

Thought Box:

What do we mean by roles and responsibilities? Is there a difference?

You will need to consult sources of information from a dictionary and/or the internet. Make a brief record of your findings. Your teacher/tutor will also discuss these terms during the session.



Thought Box:

What are the health and safety issues associated with carrying out these roles?

Produce a list of any personal and protective clothing and/or equipment and any safety measures that may need to be used.

Thought Box:

Do any of the roles listed interest you at this stage?

What information do you need to find out about in relation to the job roles?



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Learning Activity 1

Activity

In this activity you will review the skills and qualities needed for careers in the automobile industry.

Have a discussion with someone at a careers or skills event (such as WorldSkills London 2011) who has a job that you are interested in. Find out what is involved in the job and the skills and qualities needed to get the job. Repeat this activity for three different roles.

Record your findings in the table below:

	Job Categories					
	Vehicle Engine Maintenance and Repair		Vehicle Electrical Maintenance		Bodywork and Paint Repair	
Job Title						
Brief description of the job role						
Skills and qualities required for the job role						
Is the job role (Tick ✓)	Full-time		Full-time		Full-time	
	Part-time		Part-time		Part-time	
	Permanent		Permanent		Permanent	
	Casual		Casual		Casual	
	Temporary		Temporary		Temporary	



Thought Box:

In your discussions what information are you trying to obtain? Why?

Thought Box:

You will find some key words which you may be not be familiar with. Consult a dictionary or ask your teacher if you are not sure about the meaning of these words.



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Learning Activity 2

Activity:

Pay rates in the automotive industry

In this activity you are going to find out the typical rates of pay for those working in the automobile industry. Typically, this information relates to payments made on an hourly, weekly, monthly or yearly basis.

Task

Using the information you obtained to complete activity 2(a) together with any relevant careers information you have obtained, complete the table below. Remember that you are to record pay before any tax and national insurance deductions.

You must complete all sections of the table

Note: You may need to carry out calculations in which you convert from one pay rate to another

Ask your teacher or tutor for help with any calculations if required. A space at is provided at the end of the table for any rough calculations you may need to make.



Thought Box:

You will need to carry out some calculations here and this is where you will see the importance of having good maths skills!

Use the space below for rough calculations.

	Job Categories		
	Vehicle Engine Maintenance and Repair	Vehicle Electrical Maintenance	Bodywork and Paint Repair
Job Title			
Hourly Pay (before Tax and National Insurance)			
Weekly Pay (before Tax and National Insurance)			
Monthly Pay (before Tax and National Insurance)			
Yearly Salary (before Tax and National Insurance)			



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Reflective Activity

This activity will focus on reflecting on your experience of carrying out research. It will help you analyse what went well with your research and areas you feel could have been developed further. Use the space below to record your thoughts on the planning and completing of the practical tasks set.

Name:	
Class/Year:	
Course/Subject:	
What research did I carry out and what information did I consider to be important?	
What were three main things I learned from taking part in this activity?	
What did I previously think was true, but now know to be incorrect/ wrong now that I have completed the activities?	
What did we not cover that I expected we should?	
What was new or surprising to me in preparing to host the event?	
What have I changed my mind about, as a result of working as part of a team?	
One thing I learned in organising an event that I may be able to use in the future is...	
I am still unsure about...	
Issues that interested me a lot, and that I would like to study in more detail	
What I most liked about this activity was...	
What I most disliked about this activity was...	
Other interesting facts I learned in completing my tasks as part of the project.....	



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Developmental Activity

This activity will focus on getting you to review particular aspects of your role and your feelings and attitudes. You may find this section challenging!

DO ASK FOR HELP FROM YOUR TEACHER OR TUTOR IF REQUIRED!

What key ideas have I covered by completing the tasks for the careers event?	
What have I achieved in completing these tasks?	
What am I still unsure of after completing my tasks?	
What do I need to do to address the things I am unsure of?	
What do my partners in my team think of my role and contribution to the team?	
If I was to be involved in a similar task what would I do differently?	

For more information about our Education Experience Programme and how you can get involved please contact:

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