

ACTION BASED ACTIVITIES

TOPIC VN14 MOTOR VEHICLE

THEME: EDUCATION & TRAINING



APPLICATION OF NUMBER

LEVELS 1 & 2

ISSUED SEPTEMBER 2006

INSTRUCTIONS

WHAT DO I DO?

Use this Theme Template to help you:

- plan an Action-based Activity on the theme of Education and Training
- carry out an investigation into the subject
- produce evidence needed for your portfolio

NOTE: Use this booklet WITH your Learner's Planner & Guide.

WHAT IS ASSESSED?

Education and Training is one of six themes you can choose for your Action-based Activity/portfolio work.

TOPIC VN14 MOTOR VEHICLE

If you are planning to start a project it is vital that you create a plan. This Template will take you step by step from getting started, to writing and checking your final pieces of work. Each step follows Part Two of your *Learner's Planner & Guide*, so read it alongside this Theme Template.



It's a good idea to follow this advice.



You must do this to get the qualification.



**STEP
A**



CHOOSING A TOPIC

One of the best ways to start thinking about a subject is to *mindmap*. You can find how to do this on Page 5 of the *Learner's Planner & Guide*.

TASK 1

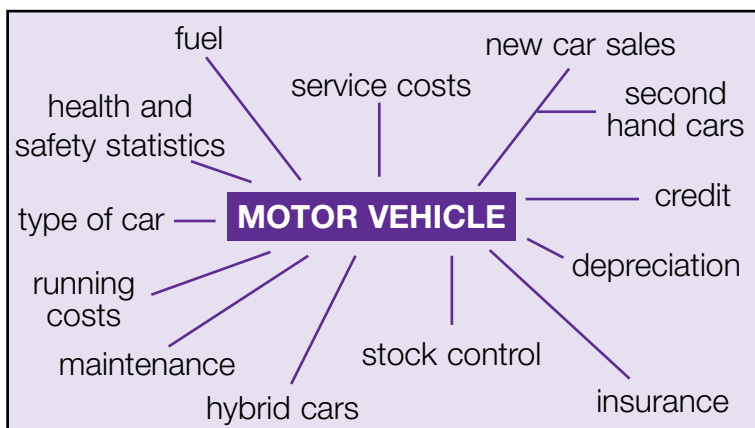
Allow about
20 minutes

On your own, or with a colleague, think about and talk about "Working in the motor vehicle industry" and aspects of it you might like to study.

Work together to make a **mindmap** of the subject. You may want to think about:

- stock control
- specifications of different models, fuel consumption and related costs
- the massive amount spent on advertising cars
- the costs of maintaining a car properly
- health and safety in the workplace
- hybrid cars
- the most popular models/colours etc

PORTFOLIO EVIDENCE – You could copy and add to the unfinished example below. This could then go into your portfolio as evidence that you have thought about your chosen subject.



APPLICATION OF NUMBER

TOPIC VN14 MOTOR VEHICLE



Continued

TASK 2
Allow about 15 minutes

When you have made your mindmap, focus in on one or two ideas that:

- interest you
- will be easy to research and get information about (talk to your tutor if you are unsure)

Write these ideas down and then try to turn them into **QUESTIONS**. This will help when you write up your conclusions later. The examples in the box may help you do this.



Topic : Motor Vehicle	
Original Idea	Question
Running a car	How much does it cost to run a car each month?
Hybrid cars	Are they a good investment?
Car Insurance	Do the accident statistics for young men support the difference in insurance costs between males and females?

TASK 3
Allow about 10 minutes

In your portfolio, write down your chosen title/question.

Check with your tutor that it is okay. Remember, you can always change it later if necessary.

TASK 4
Allow about 30 minutes

PLAN – It's a good idea next to draw up a plan of action. Make a table and on it write down what you intend to do and when you will do it by. Highlight key dates and deadlines (e.g. when you are carrying out a survey or presenting your findings).



**STEP
B**



CHOOSING & INTERPRETING INFORMATION

Interpreting information from suitable sources is an essential part of the qualification and you must be able to show that you have collected, read and extracted information from **DIFFERENT** sources.

There are lots of ways of finding information on motor vehicle such as:

- books and other resources in the library
- car magazines and newspapers
- using the Internet
- talking and interviewing people
- visiting local garages

TASK 5

Allow about
2-3 hours

Look for suitable documents to read. Remember:

- at **both Levels 1 and 2** you must use **TWO** different sources of information
- overall **at Level 1** at least one source must include a table, chart, graph or diagram
- **at Level 2** at least one source must include material containing a chart or a graph

You will need to make careful notes as you work. Put these in your portfolio (see also Pages 8 and 9 in the *Learner's Planner & Guide*)



Title of document: "Latest Northern Ireland Transport Statistics"

Author: *Central Statistics and Research Branch*

Website: *http://www.nics.gov.uk*

Main points in the report:

Various statistics and links to other websites

Additional evidence:

- survey
- leaflets
- website



ASSESSMENT Your tutor will assess that:

- you have chosen the information you need
- you have obtained the information needed
- you have identified the best methods to get the results you need

Remember to label sources clearly.

**STEP
C**



CARRY OUT AND CHECK CALCULATIONS

Carrying out and checking calculations is an essential part of the qualification. At each level you are required to carry out calculations to do with:

	Level 1	Level 2
a. amounts/sizes	✓	✓
b. scales/proportion	✓	✓
c. handling statistics	✓	✓
d. using formulae		✓

It may be difficult to cover all the required calculations for this topic (See *Learner's Planner & Guide*, Page 10).

TASK 6

Allow about
1 hour

Carry out calculations. You will need to:

- pick out the data/information you think will be useful
- decide on the calculations you need to find the results you want
- show calculation methods clearly
- check calculations and correct any errors

At Level 2 calculations must involve two or more steps.

Talk this over with your tutor if you are at all unsure. A few ideas are given overleaf.

**CARRYING OUT AND CHECKING CALCULATIONS****Examples – Carrying out and checking calculations****At Level 1:**

- you must carry out calculations using data from a secondary source such as the CSR report referred to in Task 5 or text books and trade journals containing tables, charts, diagrams or line graphs
- you might use information collected first hand as the basis of calculations (eg calculating the average amount a group of your friends spend on insurance)
 - a. costs
 - b. ratio of costs for different outgoings
 - c. range or average calculations

At Level 2:

- you must carry out calculations using data from a secondary source such as text books and trade journals containing charts or line graphs
- you might use information collected first hand as the basis of calculations (eg current sales)
- your calculations will be more complex, perhaps comparing two sets of costs eg insurance costs for males and females driving similar cars
 - a. costs eg. interest rates and loans or depreciation
 - b. calculations for a pie chart
 - c. comparison of average costs
 - d. formula for depreciation

**ASSESSMENT** Your tutor will assess:

- how well you carried out your calculations (including your working)
- that you checked your methods
- that you spotted and corrected any errors
- that your results make sense

**STEP
D**



TASK 7

Allow about
3 hours

INTERPRETING RESULTS & PRESENTING FINDINGS

Having collected, sorted, extracted data and carried out calculations based on them, you are now ready to interpret your findings.

1. Go through all the information you have collected and sort it out carefully. Keep only relevant information and make sure EVERYTHING is properly labelled.
2. Now sift through again and, on notepaper, write down your main findings and conclusions. Remember, your first question (Task 2)? Can you now answer your question?
3. How do the results of your calculations relate to the purpose of the Action-based Activity? (See Learner's Planner and Guide Page 12)
4. Think how you will present your findings.

Remember:

- at Level 1 you have to present your findings in **two** different ways using charts or diagrams
- at Level 2 you need to present your findings in **two** different ways using graphs, charts or diagrams
- comment on your graph, chart or diagram

TASK 8

Allow about
3 hours



At this stage you will be required to present your findings to a tutor or supervisor. Before you hand your work in, check that:

- you have covered all requirements intended
- each section has suitable headings/labelling
- diagrams, charts, maps etc are properly labelled
- pages are numbered
- there is a contents page

N.B. There is a checklist on Page 14 of the Learner's Planner and Guide

It is a good idea to produce a draft plan/outline of what you will include in your final presentation. An example is given on the next page.



STEP
D



INTERPRETING RESULTS & PRESENTING FINDINGS *continued*

EXAMPLE OF A DRAFT PRESENTATION PLAN

Topic: What is the real cost of motoring?

1. I will present my work as a **short report** (computer typed and to include graphs, tables etc) with the sections below.
2. **Introduction** – I will include what I wanted to find out and why it interests me.
3. **Method** – a short section saying how I set about collecting data/information e.g. obtain 20 insurance quotes for men and 20 for women driving the same car or found out results of similar surveys from the Internet and compared.
4. **Calculations and Interpretation** – I will include how I extracted information from the data collected; how I worked out averages; analysis of results of interviews with people.
5. **Presentation** – I will use written information and diagrams – mainly graphs and charts.
6. **Appendices** – to include some photocopied data from the Internet, copy of questionnaire used to interview people.

I must remember to number pages and add a Contents page.



ASSESSMENT Your tutor will assess your work as follows:

At Level 1 you will be assessed on:

- how you have interpreted the results of calculations
- suitable choice of chart or diagram with appropriate labels and correct use of units
- how you have explained what the chart or diagrams show

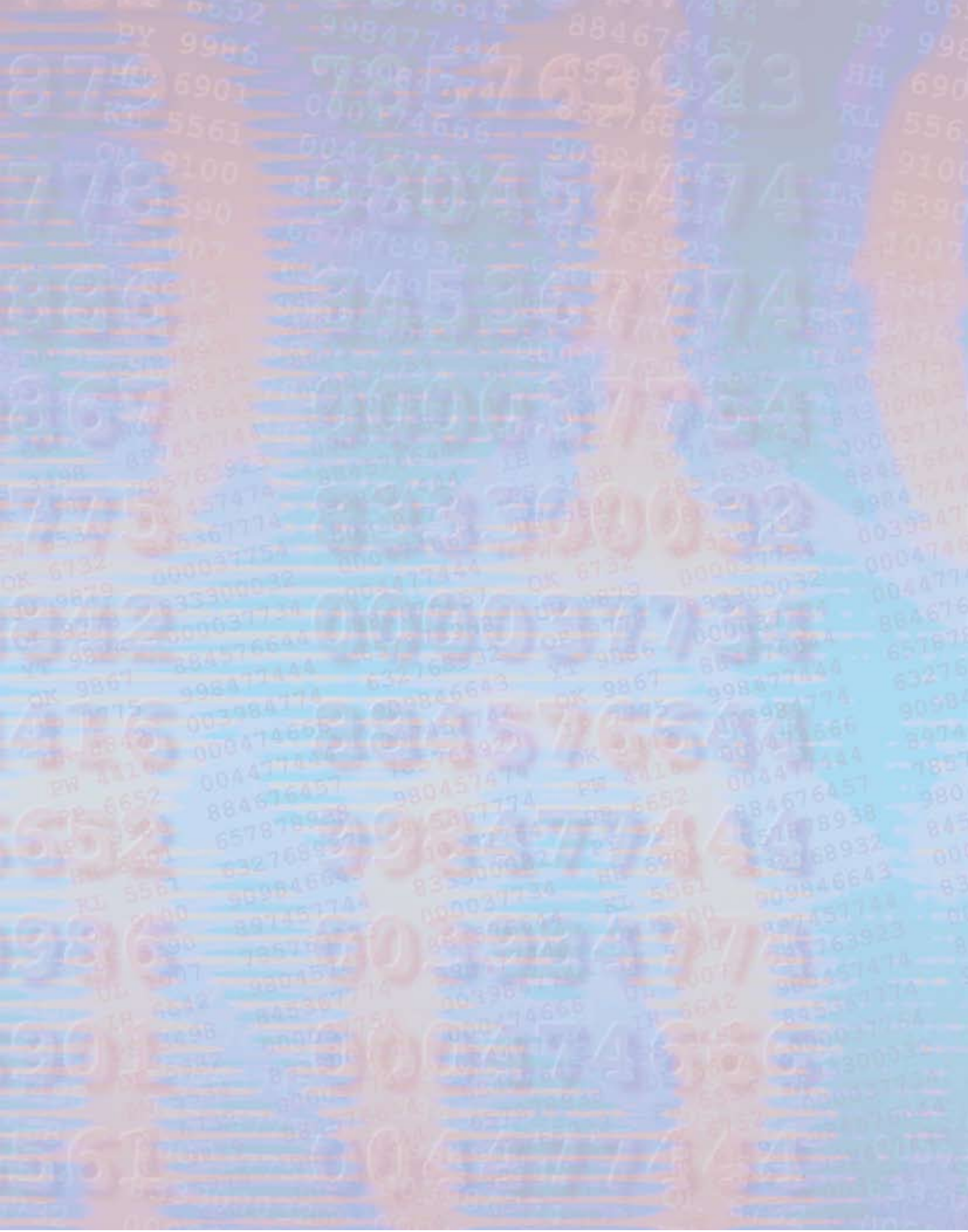
Additionally **at Level 2** you will be expected to:

- describe the methods you have used
- explain the results of calculations in terms of how they meet the purpose of your chosen Activity

**MOTOR VEHICLE
MORE ACTION BASED ACTIVITY IDEAS**

CHECK WITH YOUR TUTOR OR SUPERVISOR BEFORE YOU START WORKING.

1. Investigate the car industry in two different countries. Include data on volume of production, exports, where the cars are manufactured, unit production costs.
2. Carry out a survey of the cars people own; whether they bought it new or old; running costs etc.
3. Research health and safety statistics for different occupations in the motor industry. How can you make your workplace a safer place?
4. Interview customers to find how satisfied they are with the service they receive (another activity may be needed).
5. Compare the costs of buying and running petrol, diesel, LPG (gas) and electric cars.
6. Choose a car you would like to buy and then investigate its details – fuel consumption; running costs; taxation; resale value; insurance; road tax; maintenance requirements, etc.
7. Research the development of one model of car over the past 50 years. Compare prices and performance over this time with the car today.
8. Investigate car auctions and how they work. Calculate the potential risks and savings using this method to buy a car.
9. Research the cost of buying a make and model of car you would like to buy. Use advertisements and the Internet to compare prices and produce a Which? - type report on the best buy.
10. Investigate the average cost of garage bills by surveying car owners. Analyse your results (another activity may be needed).



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