

**PRINCIPAL LEARNING  
LEVEL 2**

**ENGINEERING**

The engineered world

**F548**

**14–21 May 2011**

**OCR supplied materials:**

- Workplace scenario (inserted)

**Other materials required:**

- Digital recorder



Candidate forename		Candidate surname	
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Centre number						Candidate number				
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**INSTRUCTIONS TO CANDIDATES**

- The insert will be found in the centre of this document.
- Write your name, centre number and candidate number in the boxes above. Please write clearly and in capital letters.

**INFORMATION FOR CANDIDATES**

- The number of marks is given in brackets [ ] at the end of each question or part question.
- The total number of marks for this paper is **60**.

**INFORMATION FOR PRESENTERS**

- This document consists of **8** pages. Any blank pages are indicated.

## Format for viva-voce examination of OCR Diploma in Engineering F548 Level 2 Unit 1 The engineered world

The viva-voce should be conducted in a quiet location where there will be no interruptions and the learner has no distractions, external contacts or access to unauthorised materials.

The centre is required to provide a digital recorder that can store up to 15 minutes of video of the viva-voce. The profiles of the learner and presenter should be clearly visible on camera. An independent invigilator must also be present.

Additionally the presenter has the opportunity to record, using **brief** notes if necessary, the key points raised by the learner, using the pages provided in this booklet.

- Before the viva-voce starts the learner should be asked to complete the front cover of this booklet.
- The presenter should check that the learner has their personal work book compiled for this unit.
- The presenter should check with the learner which engineer, engineering achievement and sectors they are going to talk about.

Before recording the viva-voce the presenter should:

1. Ask the learner to be seated.
2. Explain the format of the viva-voce to the learner by reading to them the following information:
  - Your viva-voce will last for 15 minutes.
  - Firstly I will ask you to state your name, centre number and candidate number as soon as we start.
  - I will be asking you six questions, which you must try to answer.
  - You will be talking about some aspects of the research you have undertaken.
  - You may refer to your personal workbook if you feel it would help.
  - You must remember to speak clearly and confidently.
  - While you are speaking I might be making brief notes of what you say in this booklet
3. Ask the learner if they are ready to begin.

The presenter will then say:

“You have a maximum of 15 minutes to answer the questions. I will let you know when there are 2 minutes left. After 15 minutes you will have to stop and the recording will finish”.

The camera will then be switched on and an indication will be given to the learner and presenter that the viva-voce has started.

The presenter will then say:

“Please tell me your name, centre number and candidate number and please remember to speak clearly”.

“Thank you. Now the first question is”.

1 (a) “Please identify an engineering achievement that you have researched”.

[1]

(b) “Explain any economic effects that have resulted from this engineering achievement”.

[9]

[Total: 10]

2 “Please tell me about any social issues which may have driven the development of the engineering achievement you have researched”.

[10]

3 “Please tell me what you have found out about a specific engineering professional body”.

[10]

4 (a) “Now, please tell me the two engineering sectors you have studied”.

[2]

(b) “Describe the job of a technical person within one of these engineering sectors”.

[8]

[Total: 10]

5 Look carefully at Fig.1 and then answer the questions

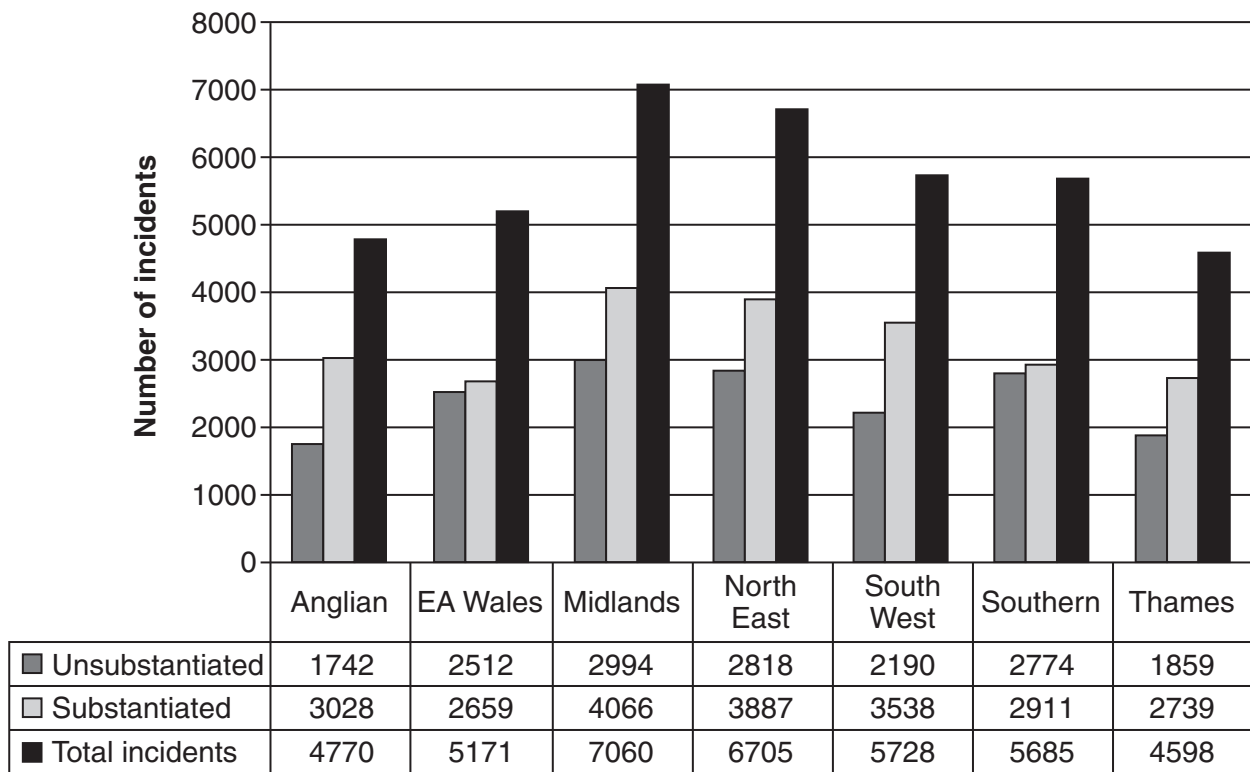


Fig. 1 – Provided by the environmental agency – Pollution incidents in England and Wales

(a) (i) Name the area with the most total incidents

(ii) What causes this area to have the most polluted incidents.

[10]

6 “Finally, I am going to give you a workplace scenario”.

(The presenter gives the learner a printed copy of the workplace scenario and also reads the scenario out).

Derek, aged 16, has just started work in an engineering workshop that uses hazardous chemicals in part of its processes. The supervisor tells him that he will be eventually shown how to use these chemicals. Derek has read a booklet about young persons using chemicals and the Health and Safety at Work Act and is worried that he should not be using hazardous chemicals.

“Now I am going to ask you a question about the workplace scenario”.

“What can you tell Derek about his responsibilities as a young person using chemicals and the responsibilities of his employer?” **[10]**

After the learner has finished speaking the presenter then says:  
“The viva-voce is over and the camera will now be switched off”.

**At no time should the presenter enter into any discussion on how well a learner has done.**





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