Name_____ Date_____

Area: real life practice - redecorating

You are going to produce an estimated cost of redecorating the training room. New carpet will be bought, the walls will be repapered, and the ceiling painted.

Before you start discuss with the group what measurements are you going to use? Will you approximate or "round off" these figures? What is a sensible amount?

An answer sheet is provided on page 2 but you can use rough paper and graph as needed.

Task A: Carpeting the Floor

1. Measure the length and width of the room and calculate the area of the floor.
2. Use the Internet to research the price of carpet and select a carpet for the room.
   Useful fact: *Carpet is sold by the square metre*
3. Work out the cost of the carpet for the room.

Task B: Painting the Ceiling

1. Measure the length and width of the room and calculate the area of the ceiling.
   Useful fact: *A litre of paint will cover 15 square metres.*
2. Calculate how many litres of paint you will need for the ceiling?
3. Use the Internet to research the price of paint. Select a type of paint and calculate how many pots you would need to buy.
4. Work out the total cost of this paint. (You can round if you want)

Task C: Wallpaper

1. Measure the walls of the training room and work out the total area.
2. Work out the area of the doors and windows and subtract this to work out the total areas which need wallpaper.
3. Research the price of wallpaper on the Internet and chose which one you will use.
   Useful fact: *A standard wallpaper roll is approximately 10m long and 0.5 metres wide.*
4. What is the area of a standard roll of wallpaper?
5. How many rolls will you need to paper the training room?
6. Work out the cost of this wallpaper.

Conclusion

1. What is the total cost of the redecorating?
2. Discuss with your group any other expenses you think might be incurred while decorating? How would you go about calculating these?

Kindly contributed by Leia Fee and other staff at Swansea ITeC leia.fee@swansea-itec.co.uk

MSS1/L1.4 (reading and measuring length), MSS1/L1.9 (area), MSS1/L1.1 (money), N1/L1.8, N1/L1.9 (rounding and estimating). Ideal preparation and practice for L1 Functional Maths (see page 3).

Name_____ Date_____

Area: real life practice - redecorating

Task A

The training room floor is _____ long and _____ wide.

This means that the area is _____, measured to the nearest _____.

The carpet I have chosen is _____ and costs _____ per _____.

The total cost of the carpet for the room will be _____.

Task B: Painting The Ceiling

The training room ceiling is _____ long and _____ wide.

This means that the area is _____, measured to the nearest _____.

I will need _____ litres of paint to cover this.

I have chosen to use the following paint: _____

This paint comes in pots of _____ and I will need _____ pots.

This will cost _____ (to the nearest _____)

Task C: Wallpaper

Height of wall	Length of wall	Area of wall
Total area		

Height of Door	Length of Door	Area of Door
Height of window	**Length of window**	**Area of window**
Total Area of Windows & Doors		

The total area to be wall papered is:

_____

The paper I have selected is _____.

It has an area of _____ per roll and costs _____ per roll

I need _____ rolls. The total cost will be _____.

Conclusion

The total cost of the materials will be _____.

Kindly contributed by Leia Fee and other staff at Swansea ITeC leia.fee@swansea-itec.co.uk

MSS1/L1.4 (reading and measuring length), MSS1/L1.9 (area), MSS1/L1.1 (money), N1/L1.8, N1/L1.9 (rounding and estimating). Ideal preparation and practice for L1 Functional Maths (see page 3).

Area: real life practice - redecorating

***Functional Skills criteria** – highlighting indicates main skills covered in this resource, although these will vary with the student group and how the resource is used by the teacher.*

The process skills are key to Functional Maths and must always be developed and stressed during teaching.

Process Skills (all levels)		
Representing – selecting the mathematics and information to model a situation	**Analysing** – processing and using mathematics	**Interpreting** – interpreting and communicating the results of the analysis

Skill Standards (Level 1)		
• understand practical problems in familiar and unfamiliar contexts and situations, some of which are non-routine • identify and obtain necessary information to tackle the problem • select mathematics in an organised way to find solutions	• apply mathematics in an organised way to find solutions to straightforward practical problems for different purposes • use appropriate checking procedures at each stage	• interpret and communicate solutions to practical problems, drawing simple conclusions and giving explanations

Coverage and Range statements (indicative only)

Coverage and range statements provide an indication of the type of mathematical content candidates are expected to apply in functional contexts. Relevant content can also be drawn from equivalent National Curriculum levels & Adult Numeracy standards.

Level 1

- understand and use whole numbers and understand negative numbers in practical contexts
- add, subtract, multiply and divide whole numbers using a range of strategies
- understand and use equivalences between common fractions, decimals and percentages
- add and subtract decimals up to two decimal places
- solve simple problems involving ratio, where one number is a multiple of the other
- use simple formulae expressed in words for one- or two-step operations
- use data to assess the likelihood of an outcome
- solve problems requiring calculation, with common measures, including money, time, length, weight, capacity & temperature
- convert units of measure in the same system
- work out areas and perimeters in practical situations
- construct geometric diagrams, models and shapes
- extract and interpret information from tables, diagrams, charts and graphs
- collect and record discrete data and organise and represent information in different ways
- find mean and range

References: Ofqual (2009), *Functional Skills criteria for Mathematics: Entry 1, Entry 2, Entry 3, level 1 and level 2.* http://www.ofqual.gov.uk/files/2009-11-functional-skills-criteria-for-mathematics.pdf
Further functional skills documents available at http://www.ofqual.gov.uk/2578.aspx

Functional Maths teaching notes

This resource is scaffolded, making it ideal practice material for Functional Mathematics. It can be adapted for individual learners. For example, some may require less scaffolding and may not need the fill-in answer sheet on page 2.

Encourage learners to:

- Plan their work
- Show all their working out clearly
- Use a calculator if needed
- Show evidence of checking their work
- Explain what they are doing and why
- Discuss and compare their results with others
- Write clear conclusions

To obtain an editable Word version of this resource simply send a resource you would like to share to maggie@skillsworkshop.org

THANK YOU

Kindly contributed by Leia Fee and other staff at Swansea ITeC leia.fee@swansea-itec.co.uk

MSS1/L1.4 (reading and measuring length), MSS1/L1.9 (area), MSS1/L1.1 (money), N1/L1.8, N1/L1.9 (rounding and estimating).
Ideal preparation and practice for L1 Functional Maths (see page 3).