



[**www.ocr.org.uk/functionalskills**](https://www.ocr.org.uk/qualifications/functional-skills/#level-2)

**FUNCTIONAL SKILLS**

***MATHEMATICS***

**LEVEL 2**



**08849**

***Scheme of work***

## For first teaching September 2019

# CONTENTS

FUNCTIONAL SKILLS MATHEMATICS

[**Introduction 3**](#_bookmark0)

**S**[**cheme of work 4**](#_bookmark1)

LEVEL 2 – SCHEME OF WORK

#### We value your feedback

# INTRODUCTION

FUNCTIONAL SKILLS MATHEMATICS

LEVEL 2 – SCHEME OF WORK

### This scheme of work is in no way prescriptive or definitive. It is just one suggestion of how you might plan the OCR Functional Skills Maths Level 2 course. It is a useful starting point and can be edited and customised to suit your classes and teaching times.

Please always refer to the Specification (available from <https://www.ocr.org.uk/qualifications/functional-skills/mathematics/#level-2>, where you can also find teaching and learning resources) for full details about the qualification.

# SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **1** | Number basics | **Mastery Activity**: Learners should be able to order a set of numbers using positive and negative numbers including decimals.  **Activities** that will support this topic:  Match figures into words including decimals using laminated cards.  What is the difference between the minimum and maximum temperature of countries around the world? | **Discussion**: Recognise negative number in practical contexts,  e.g. temperature, money, on government spending and debts.  Know what each digit represents in a number of up to seven digits, including the use of zero as a place holder.  Calculations using negative numbers. | Read, write, order and compare positive and negative numbers of any size.  **(L2N1)** | N1/L2.1 |
| **2** | The four operations | **Mastery Activity:** Learners should be able to use efficient written and mental methods in the four- operations. (calculator and non-calculator).  **Activities** that will support this topic:  Using the four operations to work out the cost of an item when the total shopping cost is given. | **Discussion**: Add, subtract, multiply and divide whole numbers using a range of mental and written methods.  Checking of calculations using approximation and estimation, examples of rounding in everyday life. | Carry out calculations with numbers up to one  million, including strategies to check answers (including estimation and approximation).  **(L2N2)** | N1/L2.2 |
| **3** | The four operations/ Indices | **Mastery Activity:** Learners should be able to calculate sums using BIDMAS (calculator and non-calculator).  **Activities** that will support this topic:  Inserting brackets in a calculation to make it true. Make the number 1 to 10 using 4, 4, 4 & 4 using any  operators, e.g. (4 + 4) ÷ (4 + 4) = 1. | **Discussion:** BIDMAS is the order in which we perform calculations.  Calculate sums including indices using BIDMAS.  Show learners how to use the Index function on the calculator. | Follow the order of precedence of operators, including indices.  **(L2N12)** | Not present in L2 ANCC |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **4** | Recap Project  Problem solving Assessment | **Recap**: Number basics and the four operations/ Indices.  **Group Project:** Learners to be given payslips and work out a mini budgeting spreadsheet.  **Problem Solving Activity:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  [https://kahoot.com](https://kahoot.com/)/ |  |  |
| **5** | Fractions, decimals and percentages | **Mastery Activity:** Learners should be able to convert fractions, decimals and percentage.  **Activities** that will support this topic:  Match equivalent fractions in pairs using laminated cards.  Write fractions of an hour as decimals and match the cards  Matching equivalent fractions, decimal and percentages using laminated cards. | **Discussion**: On how to convert between fractions, decimal and percentages and why it is used in different context, for example fraction are used in cooking, decimal are used in money, and percentage used in comparing.  Recap on simplifying fractions. | Identify and know the equivalence between fractions, decimals and percentages. **(L2N4)** | N2/L2.2 |
| **6** | Fractions, decimals and percentages | **Mastery Activity:** Learners should be able to order, add and subtract fractions using written methods (calculator and non-calculator).  **Activities** that will support this topic:  Match improper and proper fraction using laminated cards.  Order fractions in pairs using laminated cards. | **Discussion**: Understand what the numerator and denominator are in a fraction and that the denominator must be same when adding and subtracting fractions.  Recognize proper and improper fractions and how they are linked together. | Order, add, subtract and compare amounts or quantities using proper and improper fractions and  mixed numbers.  **(L2N7)** | N2/L2.1 N2/L2.4 |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **7** | Fractions, decimals and Percentages | **Mastery Activity:** Learners should be able to show a number as a fraction of another.  **Activities** that will support this topic:  Calculate fractions of shopping cost using a shopping list. | **Discussion**: Recognise equivalent fractions and know how to reduce a fraction to its simplest form. | Express one number as  a fraction of another.  **(L2N8)** | N2/L2.3 |
| **8** | Fractions, decimals and percentages | **Mastery Activity**: Learners should be able to order and compare decimals.  **Activities** that will support this topic:  Compare times from sprint races that are recorded in seconds to three decimal places. | **Discussion:** Rounding answers on a calculator and the degree of accuracy that might be  appropriate, e.g. calculations with money, precise measurements. | Order, approximate and compare decimals.**(L2N9)** | N2/L2.5 |
| **9** | Fractions, decimals and percentages | **Mastery Activity:** Learners should be able to add, subtract, multiply and divide decimals up to three decimal places using written methods (calculator and non-calculator).  **Activities** that will support this topic:  Work out total cost of buying stock for a shop using accurate prices. | **Discussion:** Add, subtract, multiply and divide decimals numbers using a range of mental and written methods. | Add, subtract, multiply and divide decimals up to three decimal places. **(L2N10)** | N2/L2.6 |
| **10** | Fractions, decimals and percentages | **Mastery Activity:** Learners should be able to calculate percentage parts of whole numbers and form percentages (calculator and non-calculator).  **Activities** that will support this topic:  Work out prices of items in the shopping basket with percent discounts. | **Discussion:** Discuss quick ways of finding VAT.  Percent = Divide amount by total amount then multiply by 100. | Work out percentages of amounts and express one amount as a percentage of another. **(L2N5)** | N2/L2.8 N2/L2.10 N2/L2.9 |
| **11** | Fractions, decimals and percentages | **Mastery Activity**: Learners should be able to work out the starting value when final value is given using multiplier.  **Activities** that will support this topic:  Work out population increase and decrease by using census data. | **Discussion:** Use the multiplier method for fast calculation.  Final value = Starting value x multiplier | Calculate the original value after percentage change. **(L2N6b)** | Not present in L2 ANCC |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **12** | Fractions, decimals and percentages | **Mastery Activity:** Learners should be able to work out the starting value following a known percentage change when a final value is given.  **Activities** that will support this topic:  Match final amount with the starting amount using laminated cards. | **Discussion:** Rearrange the following formula to work out the starting value.  Final value = Starting value x multiplier | Calculate the original value after percentage change. **(L2N6b)** | Not present in L2 ANCC |
| **13** | Recap Project  Problem solving Assessment | **Recap:** Fractions, decimals and Percentages.  **Group Project:** Learners to make a poster where real- world fractions/percentages/decimals are used and show evidence or communicate information (such as newspaper articles, etc).  **Problem Solving Activity:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  <https://kahoot.com/> |  |  |
| **14** | Ratio and proportion | **Mastery Activity:** Learners should be able to recognize ratio problems and have techniques to solve them.  **Activities** that will support this topic:  Calculate receipt ingredient for a restaurant depending on number of the customers coming in.  Share profits with business partners in different ratio. | **Discussion**: Ratio and proportion in everyday life.  Ratio Problems:   * forming and simplifying ratio, * sharing an amount in a given ratio, * ratio tables.   Ratio table linked to direct proportion and inverse proportion. | Understand and calculate using ratios,  direct proportion and inverse proportion.  **(L2N11)** | N1/L2.3 |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **15** | Formulae | **Mastery Activity:** Learners should be able to understand and recognise formula and substitute the variables with numbers, including negative numbers.  **Activities** that will support this topic:  Match operations with inverse operations using laminated cards.  Use formula to calculate cost of gas bills and electricity.  Workout earning for workers using the following formula;  E= (H × W) – T  where  E = Earnings, H = Hours, W =Wage T = Tax (e.g. 20% of wage) | **Discussion**: Introduce simple algebra for examples of practical applications of algebra-formulae.  Understand that, when there is no operator between a number and a variable, or two variables, multiplication is implied,  e.g. 2a = 2 × a ab = a × b  2ab = 2 × a × b  πr2 = π × r × r  Be careful when substituting negative numbers (place them in brackets). | Evaluate expressions and make substitutions in given formulae in words and symbols. **(L2N3)** | N1/L2.4 |
| **16** | Money | **Mastery Activity:** Learners should be able to solve money problems in various context.  **Activities** that will support this topic:  Use interest rates to compare the cost of a loan with credit facilities for companies and mortgages best deals.  Best buys questions where the learners must work out the which the best deal. | **Discussion**: How this can help in the future, why it’s important to  choose a good interest rates, loan and mortgage.  When dealing with money round the numbers up to 2 decimal places to represent the penny. | Calculate amounts of money, compound interest,  percentage increases, decreases and discounts, including tax and simple budgeting.  **(L2M13)** | N2/L2.9 N2/L2.7 N2/L2.8 N2/L2.10 |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **17** | Recap Project  Problem solving Assessment | **Recap:** Ratio and Proportion/Formulae/Money  **Group Project:** Learners to make a balance spreadsheet for a business that contains formula, cost, expenditure and tax.  **Problem Solving Activity**: Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.<https://kahoot.com/> |  |  |
| **18** | Units and measures | **Mastery Activity:** Learners should be able to convert between different metric units e.g. mmcm and problem-solving questions related to measurements  **Activities** that will support this topic:  Construct a conversion chart or line graph to convert miles to kilometres, and use it to convert between the two, using distances between towns, etc.  Use conversion graph to convert pounds, “How much spending money will you take on holiday?”. | **Discussion**: Use the appropriate units of measure for length, distance, weight, capacity and the use of metric and imperial units.  Converting between different units using conversion graph and conversion factor. | Convert between metric and imperial units of length, weight and capacity using  (1) a conversion factor and (2)  a conversion graph. **(L2M14)** | MSS1/L2.6 |
| **19** | Units and measures | **Mastery Activity:** Learners should be able to use the speed formula triangle and density formula triangle, as well as recognise the units and convert them depending on the problem.  **Activities** that will support this topic:  Learners can calculate the speed of different transport and compare them. | **Discussion**: Discuss why we use specific units of measure with specific items.  Learn the speed, distance, time formula triangle.  Learn the density, mass and volume formula triangle. | Calculate using compound measures, including speed, density and rates of pay.  **(L2M15)** | Not present in L2 ANCC |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

LEVEL 2 – SCHEME OF WORK

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **20** | Recap Project  Problem solving Assessment | **Recap:** Units and measures  **Group Project:** Learners to plan how much luggage they can take with them on an airplane for different flights. What items might this be?  **Problem Solving Worksheet:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | Discussion: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  <https://kahoot.com/> |  |  |
| **21** | Shapes | **Mastery Activity:** Learners should be able to calculate values of angles and/or coordinates with 2-D and 3-D shapes.  **Activities** that will support this topic:  Investigate and describe different representations of 3D objects in 2D, e.g. nets of solids, plans, elevations. | **Discussion**: Discuss the difference and importance of 2D and 3D shapes. | Calculate values of angles and/ or coordinates  with 2-D and 3-D shapes.  **(L2M22)** | Not present in L2 ANCC |
| **22** | Shapes | **Mastery Activity:** Learners should be able to calculate the area and perimeter of basic 2D shapes, compound shapes and circles.  **Activities** that will support this topic:  Calculate the wall area for painting, excluding doors and windows. Use plans drawn on plain paper to find the areas of composite shapes.  Calculate any missing dimensions and use a formula to find the area of each component. | **Discussion**: Identify and develop suitable method for calculating perimeter and area.  Use given formulae to find areas of composite shapes (e.g. non- rectangular rooms or plots of land).  Break down a composite shape into regular shapes.  Differentiate between area and perimeter, as there are lot of misconceptions between these two concepts. | Calculate the perimeters and areas of 2-D shapes, including  triangles, circles and composite shapes that includes non- rectangular shapes (formulae will be given except for triangles and circles). **(L2M16)** | MSS1/L2.7 MSS1/L2.8 |

FUNCTIONAL SKILLS MATHEMATICS

LEVEL 2 – SCHEME OF WORK

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **23** | Shapes | **Mastery Activity:** Learners should be able to distinguish between 2D and 3D shapes and their names. Use objects to demonstrate and calculate volume.  **Activities** that will support this topic:  Find out how much water is required to fill up swimming pools with different 3D shapes, in litres. Consider how different sizes of the same shape will have different volumes, as well as how different shapes can have equal volumes.  Convert volume into capacity. | **Discussion**: The importance of 2D and 3D shapes and why we use volume.  Volume = Area of cross-section x depth  Differentiate between volume and capacity.  Differentiate between surface area and volume as there are lot of misconceptions between these two concepts. | Use formulae to find volumes and surface areas of  3-D shapes, including cylinders (formulae to be given for  3-shapes other than cylinders).  **(L2M17)** | MSS1/L2.9 |
| **24** | Recap Project  Problem solving Assessment | **Recap**: Shapes  **Group Project:** Learners to design and plan a water theme park that includes three rides and a swimming pool. They must work out the area, perimeter and volume of some of the compound shapes that make these rides and swimming pool.  **Problem Solving Worksheet**: Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  [https://kahoot.com](https://kahoot.com/)/ |  |  |
| **25** | Representations | **Mastery Activity:** Learners should be able to list the features of a scale drawing and complete a scale drawing.  **Activities** that will support this topic:  Produce simple plans and scale drawings, with different scales and work out actual measurements, e.g. house plans, room plans, templates for making something, etc. Use and compare different scales for the same shape, e.g. 1:20, 1:10, and 1:50. | **Discussion**: How to draw an accurate scale plan of a room using a scale expressed as a ratio.  Accurately work out distances from the scale on a map.  Discuss how the size of an object might affect the scale used to depict it. | Calculate actual dimensions from scale drawings and create a scale diagram given actual measurements. **(L2M18)** | MSS1/L2.10 |

FUNCTIONAL SKILLS MATHEMATICS

LEVEL 2 – SCHEME OF WORK

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **26** | Representations | **Mastery Activity:** Learners should be able to pair 3D shapes with their plans and elevations. Consider how a plan or an elevation on its own could depict different 3D shapes.  **Activities** that will support this topic:  Investigate and describe different representations of 3D objects in 2D, e.g. nets of solids, plans, elevations. | **Discussion**: Highlight between 2D and 3D shapes.  2D shapes are flat shapes with 2 dimension and 3D are shapes that have 3 dimensions. | Understand and use common 2-D representations of  3-D objects.  **(L2M20)** | MSS2/L2.1 |
| **27** | Representations | **Mastery Activity**: Learners should be able to draw 3D shapes, including plans and elevations.  **Activities** that will support this topic:  Choose five shapes in a real-life context that are 3-D and make plan & elevation and record the vertices, edges and faces. Compare to see if any different shapes have the same plan or elevation. | Discussion: Why they chose the shapes and one advantage of the shape.  3 Views to remember: Plan view  Front View Side View | Draw 3-D shapes, including plans and elevations. **(L2M21)** | MSS2/L2.1 |
| **28** | Coordinates | **Mastery Activity**: Learners should be able to use coordinates in 2D, positive and negative.  **Activities** that will support this topic:  Plot a shape using co-ordinates and calculate the area. | **Discussion**: Discuss the importance of coordinates in 2D, positive and negative positions of points. | Use coordinates in 2-D, positive and negative,  to specify the positions of points. **(L2M19)** | Not present in L2 ANCC |
| **29** | Recap Project  Problem solving Assessment | **Recap:** Representations/ Co-ordinates  **Group Project:** Learners to design a house see how many shapes you use and make a 3D-reprensatation of the house.  **Problem Solving Worksheet:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.<https://kahoot.com/> |  |  |

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **30** | Summary statistics | **Mastery Activity:** Learners should be able to calculate the median and mode of a set of numbers.  **Activities** that will support this topic:  Write five numbers that have a mean of 4 and a range of 9, or a mode of 7 and median of 8. | **Discussion**: Averages in everyday life.  The mode can have no value or many values.  Which would be the most useful average, mode or median? | Calculate the median and mode of a set of quantities.  **(L2D23)** | HD1/L2.3 |
| **31** | Summary statistics | **Mastery Activity:** Learners should be able to estimate the mean of a grouped frequency distribution from discrete data.  **Activities** that will support this topic: Complete a frequency table.  How many siblings do you have? Work out the mean  number of siblings for the group (group activity) | **Discussion**: Discuss the advantages and disadvantages of grouped frequency distribution from discrete data. | Estimate the mean of a grouped frequency  distribution from discrete data.  **(L2D24)** | Not present in L2 ANCC |
| **32** | Summary statistics | **Mastery Activity:** Learners should be able to use the averages and range to compare many sets of data.  **Activities** that will support this topic:  Collect data of interest and compare the range, e.g. local house prices with those in another area.  Use given sports data given to work out the averages of various teams/sportspeople/animals to compare performance. This could also be done for the same team/sportsperson/animal over different seasons/time. | **Discussion**: The use of mean, median mode and range in everyday language and used to compare data.  Find the range and use it to describe the spread within sets of data.  The distinctions that each average is useful for different purposes. | Use the mean, median, mode and range to compare two sets of data. **(L2D25)** | HD1/L2.3 HD1/L2.4 |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **33** | Recap Project  Problem solving Assessment | **Recap:** Summary statistics  **Group Project:** Learners to use averages and range to compare two sports teams using the data provided and write statements to justify their choices.  **Problem Solving Worksheet:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | **Discussion**: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  <https://kahoot.com/> |  |  |
| **34** | Charts and tables | Mastery Activity: Learners should be able to draw and interpret scatter diagrams and recognise positive and negative correlation.  Activities that will support this topic:  Draw scatter graphs and investigate correlation for the following:   * to show the number of hours spent revising and the mark the student achieved, * to show temperature and the number of units of electricity used for heating recorded for ten homes, * to show shoe sizes and money earned. | **Discussion**: Different type of correlations and what does it mean in real-life.  Work out corresponding values and draw a line of best fit.  Interpret scatter diagrams and explain what the line of best fit represents in real life context. | Draw and interpret scatter diagrams and recognise positive and negative correlation.  **(L2D28)** | Not present in L2 ANCC |
| **35** | Probability | **Mastery Activity:** Learners should be able to calculate a probability and present it in different form, e.g. a fraction.  **Activities** that will support this topic:  Roll a dice and ask learners to record their results and probability scale.  Draw a sample space diagram to show all the possible choices from the café menu and then calculate the probability to choose something from the menu at random. | **Discussion:** Where probability is used, why it’s used and how it is used. Introduce the probability scale.  Emphasize to leaners that probabilities for all options always add up to 1.  Probabilities are mostly written as fractions, where the outcome you want will be numerator and total outcome will be the denominator. | Work out the probability of combined  events, including the use of diagrams and tables (including two-way tables).  **(L2D26)** | HD2/L2.1 |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

FUNCTIONAL SKILLS MATHEMATICS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Lesson No.** | **Topic** | **Suggested resources and activities to support this topic** | **Points to note** | **Functional Skills content statement reference** | **Mapping to Adult**  **Numeracy Core Curriculum** |
| **36** | Probability | **Mastery Activity:** Learners should be able to express probabilities as fractions, decimals and percentages.  **Activities** that will support this topic:  Identify the possible outcomes from a dice roll as fractions, decimals and percentages. | **Discussion**: The possible outcomes of an event using simple examples such as tossing a coin, picking a single playing card from a pack, throwing a die, the outcome of a football match for one team.  Recap on how to convert between fraction, decimal and percentage. | Express probabilities as fractions, decimals and percentages.  **(L2D27)** | N2/L1.3 |
| **37** | Recap Project  Problem solving Assessment | **Recap:** Charts and tables/ Probability  **Group Project:** Learners experiment rolling a dice. Record the results in a table and work out the theoretical probability, then compare with the experimental probability.  **Problem Solving Worksheet:** Complex problem-solving work sheet1.  **Formative Assessment:** Mini Test. | Discussion: Make an Individual Learning Plan for each learner.  Learners present the group project.  Feedback and answers on problem solving worksheet and assessment.  Kahoot is a game-based platform that can be used for assessment purposes.  <https://kahoot.com/> |  |  |
| **38** | Summative assessment | Complete functional skills assessment. Use sample / practice paper from the OCR website. | **Feedback**: Feedback to learners |  |  |

1 A complex problem is one which requires a multistep process, typically requiring planning and working through at least two connected steps or processes

LEVEL 2 – SCHEME OF WORK

**Need to get in touch?**

If you ever have any questions about OCR qualifications or services (including administration, logistics and teaching) please feel free to get in touch with our **Customer Support Centre**.

**Vocational qualifications**

Telephone 02476 851509

Facsimile 02476 851633

Email [vocational.qualifications@ocr.org.uk](mailto:vocational.qualifications@ocr.org.uk)

[**www.ocr.org.uk**](http://www.ocr.org.uk/)

**Did you know?**



OCR is part of Cambridge Assessment, a department of the University of Cambridge. *For staff training purposes and as part of our quality assurance programme your call may be recorded or monitored.*

**© OCR 2019** Oxford Cambridge and RSA Examinations is a Company Limited by Guarantee. Registered in England. Registered office

The Triangle Building, Shaftesbury Road, Cambridge, CB2 8EA. Registered company number 3484466. OCR is an exempt charity.

**OCR Resources:** *the small print*

OCR’s resources are provided to support the delivery of OCR qualifications, but in no way constitute an endorsed teaching method that is required by OCR. Whilst every effort is made to ensure the accuracy of the content, OCR cannot be held responsible for any errors or omissions within these resources.

We update our resources on a regular basis, so please check the OCR website to ensure you have the most up to date version.

This resource may be freely copied and distributed, as long as

the OCR logo and this small print remain intact and OCR is acknowledged as the originator of this work.

Our documents are updated over time. Whilst every effort is made to check all documents, there may be contradictions between published support and the specification, therefore please use the information on the latest specification at all times. Where changes are made to specifications these will be indicated within the document, there will be a new version number indicated, and a summary of the changes. If you

do notice a discrepancy between the specification and a resource please contact us at: [resources.feedback@ocr.org.uk.](mailto:resources.feedback@ocr.org.uk)

OCR acknowledges the use of the following content: N/A

Whether you already offer OCR qualifications, are new to OCR, or are considering switching from your current provider/ awarding organisation, you can request more information

by completing the Expression of Interest form which can be found here:

[www.ocr.org.uk/expression-of-interest](http://www.ocr.org.uk/expression-of-interest)

Please get in touch if you want to discuss the accessibility of resources we offer to support delivery of our qualifications: [resources.feedback@ocr.org.uk](mailto:resources.feedback@ocr.org.uk)

**Looking for a resource?**

There is now a quick and easy search tool to help find **free**

resources for your qualification:

[www.ocr.org.uk/i-want-to/find-resources/](http://www.ocr.org.uk/i-want-to/find-resources/)