

Section 6 – WLES Program Model

Curriculum Module 5 - Numeracy

Reading Document Use Writing Numeracy Oral Communication Thinking Working with Others Computer Use Continuous Learning

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MODULE 5 – Numeracy Skills

PURPOSE

To increase the numeracy skills awareness of participants through a variety of authentic group and individual activities.










The overarching aim of Module 5 is to have participants take responsibility for prioritizing their own numeracy skills gaps. Participants reflect on which of the skills encountered in this module they find most challenging, and use this information to inform their Individual Action Plans (IAPs). Personal notebooks and clear, plain language tracking documents are strongly recommended and are utilized throughout this module.

MODULE 5 ACTIVITIES

SNAPSHOT N	➤ <i>Self-assessment of numeracy vocabulary knowledge</i>
SKILLSET N	➤ <i>Assessment of numeracy skills</i> ➤ <i>Assessment of document use skills</i>
MAKE IT COUNT 1	➤ <i>Money, decimal places, rounding</i> ➤ <i>Basic calculator functions</i> ➤ <i>Numerical sequence</i> ➤ <i>Tables, pictograms, bar charts</i>
MAKE IT COUNT 2	➤ <i>Times, days, dates</i> ➤ <i>Timetables, schedules</i>
MAKE IT COUNT 3	➤ <i>Lengths, dimensions, metric measurement</i> ➤ <i>Plans, scale drawings</i>
MAKE IT COUNT 4	➤ <i>Weights, liquid volumes, metric measurement</i> ➤ <i>Temperatures, negative numbers</i>
MAKE IT COUNT 5	➤ <i>Fractions, percentages</i> ➤ <i>Proportions, ratios</i> ➤ <i>Multiplying and dividing by 10/100/1000</i>
MAKE IT COUNT 6	➤ <i>Averages</i> ➤ <i>Line graphs, pie charts, flowcharts</i>



ESSENTIAL SKILLS PRACTICED IN MODULE 5

	READING TEXT	<ul style="list-style-type: none"> ➤ <i>solve written problems</i> ➤ <i>follow written instructions</i>
	DOCUMENT USE	<ul style="list-style-type: none"> ➤ <i>use tables and schedules</i> ➤ <i>use charts, pictograms and graphs</i>
	WRITING	<ul style="list-style-type: none"> ➤ <i>complete work related documents and tasks</i> ➤ <i>make notes</i>
	NUMERACY	<ul style="list-style-type: none"> ➤ <i>locate and interpret data</i> ➤ <i>select and carry out number operations</i> ➤ <i>check accuracy of calculations</i>
	TECHNOLOGY USE	<ul style="list-style-type: none"> ➤ <i>select and use appropriate technology</i> ➤ <i>access numeracy resources</i>
	ORAL COMMUNICATION	<ul style="list-style-type: none"> ➤ <i>follow oral instructions</i> ➤ <i>ask for clarification or help</i> ➤ <i>discuss work related tasks</i>
	THINKING	<ul style="list-style-type: none"> ➤ <i>discuss reasoning process</i> ➤ <i>employ appropriate strategies to accomplish tasks</i> ➤ <i>plan and organize work related tasks</i> ➤ <i>recall information and procedures</i>
	WORKING WITH OTHERS	<ul style="list-style-type: none"> ➤ <i>share findings</i> ➤ <i>understand group objectives</i> ➤ <i>recognize personal responsibilities</i> ➤ <i>co-operate in using tools and equipment</i>
	CONTINUOUS LEARNING	<ul style="list-style-type: none"> ➤ <i>identify and set learning goals</i> ➤ <i>work to improve personal competence</i>

Note: Essential Skills icons adapted with permission from *Literacy Link South Central*



Snapshot N (Numeracy Vocabulary Self-Assessment)

In this activity participants explore vocabulary commonly used in discussing numerical information. Its focus is participation by all learners and building confidence in appropriate usage through group discussion. Participants confirm their understanding of specific vocabulary and reflect upon the numeracy skills discussed. Using the Snapshot self-assessment tool, participants recognize the vocabulary skills they already possess and build on this positive list.










Snapshot N SUGGESTED RESOURCES:

‘Snapshot’ leaflet **Literacy Victoria**



Snapshot N ACTIVITY PLAN

25 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	Learners confirm their understanding of program aims and the purpose of the Snapshot leaflet.	Confirm that learners understand the term <vocabulary> prior to commencing this activity. Ensure all learners can see screen; enlarge Snapshot leaflet image as needed.	5 mins	Snapshot leaflet -digital Computer White board –or Projector / screen
   	Learners participate in discussions about numeracy skills in the context of everyday activities and roles in the workplace. Learners complete individual numeracy vocabulary check (Snapshot leaflet).	Ensure all learners understand the concept of a self-assessment activity. Divide learners into small groups (ideally 2-4); aim to include one or more learner with ES Level 2 skills in each group as learners with reading skills below ES Level 1 may require support; note those who offer, accept and refuse support.	10 mins	Snapshot leaflets Highlighters Pens / pencils
  	Learners confirm their understanding or need for clarification of each item on the numeracy vocabulary list. <ul style="list-style-type: none"> ➤ <i>Learners write target vocabulary items in personal notebooks</i> 	Review each item in turn; encourage every learner to participate by providing workplace scenarios where this vocabulary will be relevant. At the end of this activity learners should be clear which vocabulary they are comfortable with and which items require further clarification and practice. Ensure that learners who wish to keep notes of new vocabulary understand alphabetical order; explore why notebooks will not be in strict alphabetical order.	10 mins	Snapshot leaflet -digital Computer White board –or Projector / screen Highlighters Pens / pencils Notebooks with A-Z divisions



SkillSet N (Numeracy Skills Check)

This activity establishes an initial ‘numeracy skills inventory’ for each participant. Participants complete assessment activities and consider the gaps in their number and document use skills. This activity may be conducted prior to or outside of group learning sessions. In subsequent sessions, participants set goals to meet specific numeracy skills targets appropriate to each person’s identified level of competence (Individual Action Plan) and continue to update their personal skills inventory checklist as they explore specific competencies in greater depth.

SkillSet N SUGGESTED RESOURCES:

Personal numeracy (‘SkillSet N’) inventory checklists **Literacy Victoria**

‘SkillSet N’ inventory questions and answer keys

Examples:

CAMERA math and document use assessment documents and answer keys, **PTP, Toronto***

HRSDC Essential Skills assessment, http://www.hrsdc.gc.ca/eng/workplaceskills/LES/tools_resources/tools_audience/general/online_indicator.shtml

HRSDC Numeracy Indicator, http://www.hrsdc.gc.ca/eng/workplaceskills/LES/pdfs/assessment/numeracy_indicator.pdf

HRSDC Document Use Indicator, http://www.hrsdc.gc.ca/eng/workplaceskills/LES/pdfs/assessment/du_indicator.pdf

*ASSESSMENTS REQUIRE PRACTITIONERS TO BE ACCREDITED

Examples of assessments that may require cultural adaptation:

Basic Skills Agency Initial Assessment – Numeracy, **NIACE, UK**

Skills for Life Diagnostic Assessment Toolkit, **NIACE, UK**












Functional Skills 3748 – Numeracy Assessment, **City & Guilds, UK**

Adult Numeracy Assessment 3792, **City & Guilds, UK**



SkillSet N ACTIVITY PLAN

50 minutes (*Length of activity will vary for each participant)

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	Learners participate in discussions regarding specific numeracy skills in the workplace.	Revisit the number skills discussed in Snapshot N. Ensure that learners understand the purpose of the activity is to allow them to review their own skills.	5 mins	Flipchart / markers
  	Learners complete a skills assessment for working with numbers and numerical documents.	Be aware that learners may find this activity extremely stressful; they may be unwilling to participate or they may begin but not complete the assessment. Be prepared to explore personal attitudes towards skills gaps. Ensure that negative statements are terminated immediately; statements affirming negative self esteem can adversely impact the group.	30 mins*	SkillSet N questions Pens / pencils / erasers *Length of activity will vary – ‘Sort and Predict’ can be a useful group activity that learners can join in at any time.
  	Learners check their own responses and complete a personal numeracy skills inventory document.	Some assessment tools permit only licensed practitioners to view materials and answer keys. Ensure that required protocols are adhered to. Inform learners of their assessment results at the earliest opportunity. Learners should be encouraged to share their inventory data with their tutor as a means of prioritizing skills gaps to be addressed. Some learners may resist this and their wishes should be respected.	10 mins	SkillSet N answer key Pens / pencils / erasers Personal numeracy skills inventory checklist
  	Learners participate in discussions regarding skills gaps and the impact on success in the workplace. ➤ <i>Learners note priority skills gaps in personal notebooks</i>	Aim to keep discussions as general as possible. There will be an opportunity in later sessions to discuss particular skills. The goal of this activity is to consider how personal skills gaps impact employability.	5 mins	Flipchart / markers



Make It Count 1 (MIC 1)

In this learning activity, participants explore competencies through individual and group learning activities involving calculations with money. Participants use authentic workplace documents requiring computational work to two decimal places, and rounding to two decimal places. Activities are included for participants who require an introduction to basic calculator functions. Participants consider the numeracy and document use skills required in workplace situations involving money, and when and why specific types of documents are required in the workplace.

Make It Count 1 SUGGESTED RESOURCES**Money, decimal places, rounding, basic calculator functions**

Low ES Level 1 - ReadWritePlus E1 Numeracy Unit 1 Page 9; E2 Numeracy Unit 1 Pages 5-9, Pages 19-20

ES Level 1 - WorkWrite Book 7 Activities 1.4, 3.2, 3.3; ReadWritePlus E3 Numeracy Unit 2 Pages 4-7; Level 1 Numeracy Unit 1 Pages 2-5

ES Level 2 - WorkWrite Book 7 Activities 3.5, 5.2, 5.3, 8.8; ReadWritePlus Level 1 Numeracy Unit 1 Pages 6-7

ES Level 3 - WorkWrite Book 7 Activity 2.7, 8.9; Project READ Adding To My Skills Class 9 Pages 11-12

Numerical sequence, tables, pictograms and bar charts

Low ES Level 1 - ReadWritePlus E2 Numeracy Unit 5 Pages 2-7, E3 Numeracy Unit 1 Pages 2-5










ES Level 1 - ReadWritePlus E3 Numeracy Unit 5 Pages 4-11; Project READ Adding To My Skills Class 1 Pages 14-15

ES Level 2 - WorkWrite Book 6 BarGraph1.2, Pictograph 5.4; WorkWrite Books 1-3 Document 1.25A





Make It Count 1 (MIC 1) ACTIVITY PLAN

50 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	Learners participate in discussions regarding numeracy skills (involving money) in the workplace and in daily life.	Aim to revisit the number skills discussed in Snapshot N and SkillSet N.	5 mins	Flipchart / markers
   	Learners participate in activities based on workplace scenarios involving money and complete questions based on these documents. Learners review basic calculator use (addition/multiplication/subtraction/division).	Place learners in small groups so that those working at Essential Skills Level 1 receive peer support. If tutors are available they should float between groups (rather than assist individuals) to encourage working relationships between learners. It is suggested that scenarios involving money are used early in Module 5 as learners are most likely to be familiar with these types of calculations. For learners working at Level 1 in numeracy skills, fake money may be a useful learning aid. Be prepared to discuss the value of rounding/estimating as a way to check calculator results. Be prepared to demonstrate ways in which understanding of decimal place, as well as calculator skills, impact final results.	15 mins	Documents selected from suggested resources for MIC 1 Pens / pencils Fake money Calculators
  	Learners review activities and participate in discussions arising from MIC1 documents. Learners review their own skills in working to two decimal places in operations involving money.	Be prepared to encompass functionality in addressing why accuracy is important in carrying out any numerical operation and possible consequences of errors. Be prepared to revisit the importance of rounding and estimating skills in the context of calculations involving money. Encourage learners to note areas of difficulty in notebooks or on personal numeracy skills inventory.	5 mins	Flipchart / markers Personal numeracy skills inventory checklist Notebooks Pens / pencils



Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	<p>Learners participate in activities based on workplace scenarios working with numerical data (tables, pictograms, bar charts) and complete questions based on these documents. Activities to review numerical sequences may be more appropriate for learners working at Level 1 in numeracy.</p>	<p>Maintain groups which are working successfully; suggest changes where needed to encourage working relationships between learners. Aim to provide workplace documents that vary in complexity. Be aware that some learners may have limited experience of working with graphs/charts/tables. Be prepared to explain where to look on a graph (title/axes/labels) in order to understand what it is about before trying to understand the data.</p>	<p>15 mins</p>	<p>Documents selected from suggested resources for MIC 1 Pens / pencils / rulers / erasers</p>
	<p>Learners review activities and participate in discussions arising from MIC1 documents. Learners demonstrate understanding of why numerical data may be presented in a variety of formats. Learners review their own skills in working with data presented in tables, pictograms and bar charts (or numerical sequence).</p> <ul style="list-style-type: none"> ➤ <i>Learners write personal skills target items in personal notebooks</i> 	<p>Be prepared to encompass functionality in these discussions. The aim of this activity is to have learners understand why a particular type of document is most appropriate to convey numerical data. Be prepared to explain: the difference between different types of graphs and charts; the type of information included in tables and schedules as well as possible variations in layout. Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist). High priority skills targets should be noted in personal notebooks, or highlighted on skills checklists. In the Plan and Review activity learners may choose to transfer some items of these items to their IAP for work with individual tutors. Be prepared to provide additional learning materials.</p>	<p>10 mins</p>	<p>Flipchart / markers Personal numeracy skills inventory checklist Notebooks Pens / pencils</p>



Make It Count 2 (MIC 2)

In this learning activity, participants explore competencies through individual and group learning activities involving representation and calculation of time. Participants use authentic workplace documents requiring an understanding of conventions for representing times and dates. Activities are included for participants who require an introduction to abbreviations commonly used for days and months. Participants consider the numeracy and document use skills required in workplace situations involving schedules, and when and why specific types of documents are required in the workplace.

Make It Count 2 SUGGESTED RESOURCES**Times, days and dates**

Low ES Level 1 - E2 Numeracy Unit4 Pages 4-7

ES Level 1 - WorkWrite Book 7 Activity 4.2

ES Level 2 - WorkWrite Book 7 Activity 4.6

Timetables and schedules

Low ES Level 1 - ReadWritePlus E1 Numeracy Unit 3 Pages 5 and 11

ES Level 1 - WorkWrite Books 1-3 Document 2.06; Project READ Adding To My Skills Class 8 Pages 9-10













ES Level 2 - WorkWrite Books 1-3 Document 2.08; WorkWrite Book 4 Document 4.24; WorkWrite Book 7 Activity 7.4

ES Level 3 - WorkWrite Book 7 Activity 7.5; Project READ Adding To My Skills Class 8 Pages 12-13

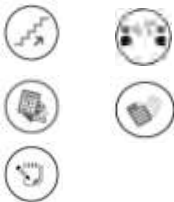


Make It Count 2 (MIC 2) ACTIVITY PLAN

50 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	<p>Learners participate in discussions regarding numeracy skills (involving schedules) in the workplace and in daily life.</p>	<p>Aim to revisit the number skills discussed in Snapshot N and SkillSet N. Keep in mind the goals for learners in this set of activities:</p> <ul style="list-style-type: none"> -consider typical formats for representing schedules -practice reasoning and computational skills required in workplace situations involving schedules -consider when and why specific types of documents are appropriate to convey schedule data. 	<p>5 mins</p>	<p>Flipchart / markers</p>
    	<p>Learners participate in activities working with formats and conventions for representing time, days and dates.</p>	<p>Place learners in small groups so that those working at Essential Skills Level 1 can receive peer support. Note those who offer and those who refuse assistance for future reference. If tutors are available they should float between groups, in order to encourage working relationships between learners.</p> <p>Ensure that the learning activities used to review these skills allow all learners to achieve a sense of accomplishment. Be prepared to review conventions for abbreviations for days and months, and review a range of day/month/year abbreviations, for example: DDMMYYYY, typically found on forms, for all learners.</p>	<p>10 mins</p>	<p>Documents selected from suggested resources for MIC 2 Pens / pencils Clocks Various calendars, agendas, diaries.</p>
    	<p>Learners participate in activities involving examples of workplace scenarios working with calculations involving schedules.</p>	<p>Be aware that activities involving schedules using the 24 hour clock may not be appropriate for learners working at Essential Skills Level 1. Be aware that some activities involving calculation of time periods (converting hours to minutes and back again) may require reasoning skills at Level 3.</p>	<p>25 mins</p>	<p>Documents selected from suggested resources for MIC 2 Copies of authentic timetables: for example local bus and transit / local ferries / VIA Rail</p>



Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	<p>Learners review activities and participate in discussions arising from MIC2 documents.</p> <p>Learners demonstrate understanding of why times and dates are presented in a variety of formats.</p> <p>Learners review their own skills in working with formats and conventions for representing time, days and dates.</p> <p>Learners review their own skills in working with schedules.</p> <ul style="list-style-type: none"> ➤ <i>Learners write personal skills target items in notebooks</i> 	<p>Be prepared to encompass functionality in these discussions. Keep in mind, a major goal for learners from this set of activities is to understand when and why a document makes use of different formats, for example daily / weekly / monthly work shift schedules.</p> <p>Be prepared to explain: the difference between different types of information included in timetables and schedules as well as possible variations in layout.</p> <p>Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist).</p> <p>High priority skills targets should be noted in personal notebooks, or highlighted on numeracy skills inventory checklists. In the Plan and Review activity learners may choose to transfer some of these items to their Individual Action Plan for work with individual tutors.</p> <p>Be prepared to provide additional learning materials.</p>	<p>10 mins</p>	<p>Flipchart / markers Personal numeracy skills inventory checklist Notebooks Pens / pencils</p>



Make It Count 3 (MIC 3)

In this learning activity, participants explore competencies through individual and group learning activities involving measuring and recording length. Participants use authentic workplace documents requiring an understanding of conventions for representing and calculating using metric systems of recording measurement. Activities are included on representing dimensions on plans and scale drawings. Participants consider the numeracy and document use skills required in workplace situations involving measurement, and when and why specific types of documents are required in the workplace.

Make It Count 3 SUGGESTED RESOURCES**Lengths and dimensions (metric measurement)**

Low ES Level 1 - ReadWritePlus E1 Numeracy Unit 4 Page 5; E2 Numeracy Unit 4 Pages 2-3

ES Level 1 - ReadWritePlus E3 Numeracy Unit4 Pages 2-3

ES Level 2 - WorkWrite Book 7 Activity 9.2

ES Level 3 - WorkWrite Book 7 Activities 4.8, 9.3 (not metric)

Plans and scale drawings




ES Level 1 - ReadWritePlus E3 Numeracy Unit5 Page 2

ES Level 2 - ReadWritePlus L1 Numeracy Unit5 Pages 4-5

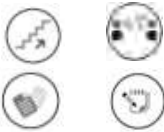


Make It Count 3 (MIC 3) ACTIVITY PLAN

50 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	Learners participate in discussions regarding numeracy skills (involving measurement of length and dimensions) in the workplace and in daily life.	Aim to revisit the number skills discussed in Snapshot N and SkillSet N. Keep in mind the goals for learners in this set of activities: -practise measuring, reasoning and computational skills involving length, perimeter and area -consider when and why scale drawings may be required and how to work with these documents.	5 mins	Flipchart / markers
	Learners participate in activities involving practical skills in estimating, measuring and recording length.	Place learners in pairs for practical tasks. Ensure that the learning activities used to review these skills allow for a sense of accomplishment. Be aware that learners may have limited skills in using calculators. Be aware that older learners may be resistant to using metric systems of recording measurement. Encourage learners to verbalize when estimating, measuring and recording lengths and discourage verbalizing imperial units. Be aware that for many workplace roles, knowledge of formulae is not necessary; encourage use of logic to solve problems and share strategies with the group.	15 mins	Documents selected from suggested resources for MIC 3 Rulers / tape measures Calculators Pens / pencils / erasers
	Learners participate in activities involving reading plans and scale drawings.	Be particularly careful when photocopying resources that include scale drawings. Many printer defaults will scale documents to fit the available print area; <u>these defaults need to be deselected!</u> Be aware that learners working with skills at low Level 1 may find calculations of area and volume very challenging. For these learners, select materials that focus on measuring and recording skills and progress to verbalizing dimensions and calculating perimeter.	20 mins	Documents selected from suggested resources for MIC 3 Rulers / tape measures Pens / pencils / erasers



Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	<p>Learners review their responses to questions and participate in discussions arising from these learning activities.</p> <p>Learners demonstrate understanding of why measurements data is presented in a variety of formats.</p> <p>Learners demonstrate an appreciation of their own numeracy skills in working with measurement tools and documents.</p> <ul style="list-style-type: none"> ➤ <i>Learners write personal skills target items in notebooks</i> 	<p>Be prepared to encompass functionality in these discussions. Keep in mind, a major goal for learners from this set of activities is to understand when and why a document format is appropriate, for example scale plans or drawings.</p> <p>Be prepared to explain the difference between different types of information included in documents such as floor plans, as well as possible variations in complexity and layout. Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist). Suggest that learners work with individual tutors and be prepared to provide additional learning materials.</p>	<p>10 mins</p>	<p>Flipchart / markers Personal numeracy skills inventory checklist Notebooks</p>



Make It Count 4 (MIC 4)

In this learning activity, participants explore competencies through individual and group learning activities involving measuring and recording of weight, volume and temperature. Participants use authentic workplace documents requiring an understanding of conventions for representing and calculating using metric systems of measurement. Activities are included on representing negative numbers. Participants consider the numeracy and document use skills required in the workplace involving measurement of weight, volume and temperature, and when and why specific types of documents are required in the workplace.

Make It Count 4 SUGGESTED RESOURCES

Weights and liquid volumes (metric measurement)

Low ES Level 1 - ReadWritePlus E2 Numeracy Unit 4 Pages 4-7

ES Level 1 - ReadWritePlus E3 Numeracy Unit4 Page 8

ES Level 2 - ReadWritePlus E3 Numeracy Unit4 Pages 4-5, Pages 6-7

ES Level 3 - ReadWritePlus Level 2 Numeracy Unit 5 Pages 2-5

Temperatures and negative numbers

Low ES Level 1 - ReadWritePlus E2 Numeracy Unit 4 Pages 8-9













ES Level 1 - ReadWritePlus E3 Numeracy Unit4 Pages 9-10; BBC Skillswise/numbers/measuring/temperature/Worksheets 1-3

ES Level 2 - ReadWritePlus Level 2 Numeracy Unit 1 Pages 2-3


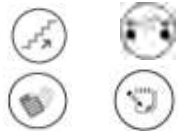


Make It Count 4 (MIC 4) ACTIVITY PLAN

50 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	<p>Learners participate in discussions regarding numeracy skills (involving metric measurement of weights, liquid volumes and temperature) in the workplace and in daily life.</p>	<p>Aim to revisit the number skills discussed in Snapshot N and SkillSet N. Keep in mind, the goals for learners in this set of activities:</p> <ul style="list-style-type: none"> -consider why metric systems have been introduced -practice reasoning and computational skills required in using metric measures for weight and liquid volumes -consider when and why particular measuring instruments may be appropriate. 	<p>5 mins</p>	<p>Flipchart / markers</p>
    	<p>Learners complete activities to review practical skills in estimating, measuring and recording weight.</p>	<p>Place learners in pairs for practical tasks. Some learners may have personal weight issues; be prepared to explore health and employability issues associated with weight. Encourage learners to verbalize when estimating, measuring and recording weights; discourage verbalization of imperial measures. Be prepared to explain why ‘cups’ are not units of weight, but of volume; explore the implications of this, e.g. for recipes (converting to millilitres not grams). Review multiplying/dividing by 1000 (grams ↔ kilograms).</p>	<p>15 mins</p>	<p>Documents selected from suggested resources for MIC 4 Bathroom (personal) scales / kitchen (food) scales Various food items Recipe books Pens / pencils</p>
    	<p>Learners complete activities to review practical skills in estimating, measuring and recording liquid volumes.</p>	<p>Many resources working with liquid measures use medication and/or alcohol as examples. Be aware that some learners may have prior substance abuse issues; be prepared to explore associated health and employability issues. Encourage learners to verbalize when estimating, measuring and recording liquid volumes; explore metric labelling of products and review abbreviations. Revisit the topic of ‘cups’ - in the case of liquid volumes it is possible to directly convert ‘cups’ to millilitres.</p>	<p>15 mins</p>	<p>Documents selected from suggested resources for MIC 4 Medicine spoon/syringe Measuring jugs Various cups / glasses Coloured water / juice Commercial drinks in various sizes (2L/330ml) Pens / pencils</p>



Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	<p>Learners complete activities to review practical skills in reading and recording temperatures.</p>	<p>Be aware that learners with low Level 1 numeracy skills may find working with negative numbers challenging. Be prepared to demonstrate how to read, measure and record temperature change. Encourage learners to verbalize when reading and recording temperatures; explore reporting of temperature in the media, in particular maps showing temperature bands.</p>	<p>10 mins</p>	<p>Documents selected from suggested resources for MIC 4 Thermometers Copies of authentic weather forecasts, for example CBC News internet site / local newspapers Pens / pencils</p>
	<p>Learners review their responses to questions and participate in discussions arising from these learning activities. Learners demonstrate understanding of criteria for selecting appropriate measurement equipment. Learners demonstrate an appreciation of their own numeracy skills in working with measurement tools and documents. ➤ <i>Learners write personal skills target items in notebooks</i></p>	<p>Be prepared to encompass functionality in these discussions. A major goal for learners from this set of activities is to understand when and why different measuring equipment is used. Be prepared to address questions of scale and accuracy. Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist). Suggest that learners work with individual tutors and be prepared to provide additional learning materials.</p>	<p>5 mins</p>	<p>Flipchart / markers Personal numeracy skills inventory checklist Notebooks</p>



Make It Count 5 (MIC 5)

In this learning activity, participants explore competencies through individual and group learning activities involving representations of fractions, percentages and ratios. Participants use authentic workplace documents requiring an understanding of conventions for representing and calculating using percentages. Activities are included on identifying decimal place and different methods for calculating with decimals. Participants consider the numeracy and document use skills required in the workplace involving use of fractions, percentages and ratios, and when and why specific types of documents are required in the workplace.

Make It Count 5 SUGGESTED RESOURCES

Fractions

ES Level 1 - ReadWritePlus E2 Numeracy Unit 2 Pages 2-5, Page 12

ES Level 2 - Project READ Adding To My Skills Class 14 Page 7; ReadWritePlus Level 1 Numeracy Unit 1 Pages 14-15

ES Level 3 - ReadWritePlus Level 2 Numeracy Unit 1 Pages 10-11

Proportions and ratios, percentages and multiplying/dividing by 10/100/1000

ES Level 1 - Project READ Adding To My Skills Class 7 Pages 10 and 12, 14-15; WorkWrite Book 7 Activities 8.4, 10.1






ES Level 2 - Project READ Adding To My Skills Class 10 Pages 9-11; Class 11 Page 8; ReadWritePlus Level 1 Numeracy Unit 1 Pages 8-13

ES Level 3 - WorkWrite Book 7 Activities 8.9, 10.3; ReadWritePlus Level 2 Numeracy Unit 1 Pages 4-7, Pages 12-18






Make It Count 5 (MIC 5) ACTIVITY PLAN

50 minutes

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	<p>Learners participate in discussions regarding numeracy skills (involving fractions, ratios and percentages) in the workplace and in daily life.</p>	<p>Aim to revisit the number skills discussed in Snapshot N and SkillSet N. Keep in mind, the goals for learners in this set of activities:</p> <ul style="list-style-type: none"> -consider when and why fractions, ratios and percentages are used -practice reasoning and computational skills required in interpreting fractions, ratios and percentages. <p>Be aware that learners working at ES Level 1 may be challenged by much of this work. Be prepared to provide concrete examples, using authentic documents to encourage learners to attempt work they find challenging. Be aware that some learners may be resistant to work that recalls past experiences of failure; providing clear purpose for learning these skills will be very important for these learners.</p> <p>Introduce or review vocabulary (for example, ‘denominator’) as required. Be aware that some learners may be resistant to using mathematical terminology; their choice should be respected, but be prepared to discuss why precise vocabulary is valuable.</p>	<p>5 mins</p>	<p>Flipchart / markers</p>
  	<p>Learners complete activities to review skills in working with fractions.</p>	<p>Be prepared to explore the relationship between fractions and percentages ($\frac{1}{2} = 50\%$, $\frac{1}{5} = 20\%$, $\frac{2}{5} = 40\%$) using workplace examples; learners may be aware of this relationship in connection with money (25¢ = a quarter of \$1) but not have made the connection in other areas. Pre-marked cards that can be folded or cut into fractions may be useful in assisting learners to visualize concepts such as equivalent fractions.</p>	<p>15 mins</p>	<p>Documents selected from suggested resources for MIC 5 Pens / pencils Images or actual items to be divided: pizza/chocolate/money Calculators</p>



Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
	Learners complete activities to review skills in working with ratios and proportions.	Learners working at Essential Skills Level 1 will find theoretical exercises more challenging than specific problems. Copies of multiplication grids and concrete objects (counters/blocks) may be useful tools in assisting learners trying to visualize ratios.	15 mins	Documents selected from suggested resources for MIC 5 Pens / pencils Multiplication grids Counters /candy /blocks Calculators
	Learners complete activities to review skills in working with percentages.	Be prepared to explore different methods of estimating and calculating percentages; learners may be able to estimate or calculate familiar amounts for items such as sales tax, but be unable to work with new percentage rates. Be prepared to review specific numeracy skills such as counting/multiplying/dividing by 10s/100s.	10 mins	Documents selected from suggested resources for MIC 5 Pens / pencils Calculators
	Learners review their responses to questions and participate in discussions arising from these learning activities. Learners demonstrate understanding of practical applications for the use of fractions, ratios and percentages. Learners demonstrate an appreciation of their own numeracy skills in working with and calculating fractions, ratios and percentages. ➤ <i>Learners write personal skills target items in notebooks</i>	Be aware that some learners may be resistant to exploring some of these concepts if they perceive them to be overly complex or beyond their capabilities; be prepared to provide concrete examples of these operations in use in the workplace or daily life. Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist). Suggest that learners work with individual tutors and be prepared to provide additional learning materials.	5 mins	Flipchart / markers Copies of authentic documents such as banking / credit card information leaflets. Personal numeracy skills inventory checklist Notebooks



Make It Count 6 (MIC 6)

In this learning activity, participants explore competencies through individual and group learning activities involving calculation of averages and representation of data in a variety of formats. Participants use authentic workplace documents requiring an understanding of conventions for describing averages, trends and ranges. Activities are included on identifying appropriate methods of representing data. Participants consider the numeracy and document use skills required in the workplace involving use of averages, and when and why specific types of documents are required in the workplace.

Make It Count 6 SUGGESTED RESOURCES:**Averages**

ES Level 2 - ReadWritePlus Level 1 Numeracy Unit 5 Pages 10-11

ES Level 3 - WorkWrite Book 7 Activity 10.4; ReadWritePlus Level 2 Numeracy Unit 5 Pages 12-15

Line graphs, pie charts and flowcharts

Low ES Level 1 - WorkWrite Book 6 OC 9.2; ReadWritePlus E Numeracy Unit 5 Pages 2-3, Pages 6-9













ES Level 1 - WorkWrite Book 6 PD 8.2; PD 8.3

ES Level 2 - WorkWrite Book 6 CG 2.2, LG 3.2, LG 3.3, OC 9.3, Report 10.3; ReadWritePlus Level 1 Numeracy Unit 5 Pages 2-3, Pages 6-9

ES Level 3 - WorkWrite Book 6 CG 2.4; PD 8.5 Book 7 Activity 10.2; ReadWritePlus Level 2 Numeracy Unit 5 Pages 6-10



Make It Count 6 (MIC 6) ACTIVITY PLAN**50 minutes**

Essential Skills	Activity Aims	Facilitator Notes	Time	Materials
 	Learners participate in discussions regarding numeracy skills (involving averages and interpreting data in a variety of formats) in the workplace.	Aim to revisit the number skills discussed in Snapshot N and SkillSet N. If this is the final group learning session around numeracy skills, be prepared to revisit other topics that learners may feel are higher priorities. Have learning materials on hand for previous topics.	5 mins	Flipchart / markers
   	Learners complete activities to review skills in working with averages.	Be aware that some learners may believe they have limited experience working with averages. Be prepared to demonstrate concrete applications. Be aware that learners working at ES Level 1 may find this topic challenging and require considerable time to complete tasks. Encourage learners working towards ES Level 3 to explore 'mean', 'range' and 'mode' through daily life applications- hockey statistics are useful in this context!	20 mins	Documents selected from suggested resources for MIC 6 Pens / pencils Calculators
   	Learners complete activities to review skills in working with numerical data presented in a variety of formats.	Be aware that learners working at Essential Skills Level 1 may understand the general concepts presented by numerical data in many visual forms (pie charts/line graphs/flowcharts) on higher level documents without being able to carry out calculations at that level.	20 mins	Documents selected from suggested resources for MIC 6 Pens / pencils Rulers / erasers
 	Learners review their responses to questions and participate in discussions arising from these learning activities. Learners demonstrate understanding of practical applications, and an appreciation of their own numeracy skills in working with averages and presenting data in a variety of formats. ➤ <i>Learners write personal skills target items in notebooks</i>	Encourage learners to consider making use of diagrams (process charts) to plan their own learning pathways; one example of this is shown in Module 1 (in activity: Snapshot I). Encourage learners to note personal areas of difficulty (numeracy skills inventory checklist). Suggest that learners work with individual tutors and be prepared to provide additional learning materials.	5 mins	Flipchart / markers Personal numeracy skills inventory checklist Notebooks

