

MATHEMATICAL LITERACY CURRICULUM ASSISTANTS ORIENTATION MANUAL

BASIC
EDUCATION
EMPLOYMENT
INITIATIVE (BEEI)



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA



PRESIDENTIAL
EMPLOYMENT
STIMULUS

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1. Background and Introduction

The Basic Education Employment Initiative (BEEI) forms part of Government's priority interventions to expand public employment, creating decent jobs, reducing youth unemployment, alleviating poverty in communities, support livelihoods, and retaining existing jobs. The BEEI forms part of the Presidential Youth Employment Initiative (PYEI). It also responds to the economic impact of COVID-19, and seeks to support job creation and expand support for vulnerable households.

The Department of Basic Education (DBE) in collaboration with Provincial Education Departments (PEDs) implemented the BEEI from 1 December 2020 to 30 April 2021. In Phase 1, the BEEI contributed a sizeable number of employment opportunities as part of the Employment Stimulus Programme (PESP).

Through the BEEI, about 200 000 Educator Assistants (EAs) and 100 000 General School Assistants (GSAs) were placed in public schools across the country. Youth between the ages of 18 and 35 were placed in public schools across the provinces. Altogether, close to 320 000 young people benefited from the employment opportunities created through this initiative. The appointment of the youth assisted in addressing challenges in schools arising out of the COVID-19 outbreak in South Africa and the subsequent national lockdown. EAs supported educators in the classroom and encouraged the love for reading among learners while GSAs assisted in ensuring that teaching and learning took place in a safe and conducive environment, in compliance with COVID-19 protocols.

The implementation of the BEEI provided an opportunity to address systemic challenges and to begin to move towards a post-COVID-19 future, through addressing COVID-19 academic disruptions; responding to challenges such as infrastructure maintenance and provisioning of psychosocial support for learners. The BEEI also provided the sector with an opportunity to promote ICT integration in the classroom, which has become imperative, as observed throughout the time when the country was in lockdown, with teaching and learning taking place through virtual platforms.

The objectives of the BEEI are to achieve the following:

- a) capacitate schools to manage the impact of COVID-19 on schooling, whilst supporting the Basic Education Sector as it repositions and re-imagines the future beyond COVID-19;
- b) to ensure that school infrastructure is maintained through the provision of GSAs; and
- c) save SGB-funded posts at fee-paying schools and posts at government subsidised independent schools.

The orientation manuals for FET Curriculum Assistants have been revised and strengthened to incorporate the lessons learned during the first phase.

The objectives of the orientation manual are to guide the orientation of the CAs in the following areas:

- How to assist with remediation as part of the learning loss recovery programme.
- How to support the implementation of Reading Across the Curriculum.
- Orientation of CAs to assist in the provision of career information.
- Subject specific orientation: Detailed guidance to educators on how to best benefit from the CAs to support teaching and learning.

CAs involvement and role in schools can contribute to the improvement of learner performance.

SECTION A: GENERIC FOCUS AREAS FOR ORIENTATION OF EDUCATOR ASSISTANTS

Under the guidance of the educator, the EAs will be orientated to assist in generic aspects as described in this section.

2. Remediation

Since the outbreak of the pandemic, South Africa, like all countries the world over were faced with unprecedented learning losses due to extended school closures, sporadic closures of schools due to infections, the phased in reopening of schools, introduction of rotational time tabling models due to social distancing protocols to name a few. The impact on learning are estimated to be as high as 75% in some grades.

When learners struggle with academic concepts, schools try a variety of intervention tactics. Remediation strategies are one type of intervention. Effective remediation involves identifying the learner's needs, providing intervention and evaluating learner outcomes. Successful remediation adjusts the instruction based on the learner's response to the intervention.

Remedial programmes are designed to close the gap between what learners know and what they are expected to know, i.e. they reteach core skills. They offer extra support to help learners to catch up with their peers. Remedial programs are expanding in many places because so many learners faced learning challenges during the COVID-19 pandemic. These programmes tend to be most helpful to learners with gaps in their learning because of frequent absences or trouble with focus.

The main goal of remediation is to assist a learner who has fallen behind academically to 'catch up' with their peers. Remediation seeks to build on the missing skills. Through remediation activities or lessons, educators assist a learner to improve his/her skills through direct instruction. Remedial instruction is focused on the specific concepts with which the learner struggles.

Whilst remediation is a specialist skill, **EAs can assist educators** in implementing or monitoring remediation programmes. Below follows a few remediation strategies that can be employed by EA's.

Reinforcement (Re-teaching):

Re-teaching is one method of remediation. Educators present the information to the learner again. At its core, re-teaching is about **flexible instruction that is responsive to learner needs**. Re-teaching is used when a learner simply needs more exposure to the subject before, he can internalise it. Re-teaching is not a sign of failure or ineffective instruction. Instead, it is evidence of an educator's ability to differentiate instruction to meet the needs of all learners. Educators should expect to re-teach and should plan accordingly so that the time and the resources are available to do so successfully. EAs can assist educators by supervising the additional activities/exposure provided by the educator.

Re-teaching does not mean repeating a lesson for a learner who didn't get it the first time. It definitely does not mean presenting the same lesson again in a louder voice. Re-teaching involves presenting new or previously learned content using a new method or approach.

There is no one-size-fits-all approach because it's going to be tailored to what your learners need. However, effective re-teaching programs use the same research-based principles.

With an effective re-teaching program, educators should:

- **break down concepts that are difficult for learners** - If you want to diagnose what is causing a learner to struggle with a concept, you need to break the concept down into steps or teachable skills to figure out where he or she is struggling.
- **present the content in a new way** - there is no right or wrong way to re-teach as long as data is used to inform the re-teaching strategy.
- **create learning targets/goals for the learners and assess progress** - Once an area of need has been identified, create goals or learning targets should be created for learners. Creating goals will help learners with shared goals, provide them with a focus for re-teaching or intervention, and provide the educator with a baseline for progress monitoring.

With the assistance of the educator, the EAs can assist in the above.

Alternative instructional strategies:

Some learners may require alternative teaching strategies for remediation. These strategies are often based on learners' individual learning styles. Educators can include EAs in these strategies. For example, if the learner does not comprehend content from an educator on the parts of speech, the educator might have him/her work with an EA to make a poster on parts of speech using pictures cut from a magazine. If a learner is a kinaesthetic learner, he/she will learn concepts better with hands-on activities. Remediation often includes multiple teaching styles to reach learners with various learning styles.

Task analysis:

Task analysis is the process of breaking a skill into smaller, more manageable components (mini goals). Once a task analysis is complete, it can be used to teach learners a skill that is too challenging to teach all at once. Educators can remediate the skill by teaching these components in sequence. Task analysis helps the educator to see what part of the process is causing difficulty for the learner.

The list can provide educators with a good starting point to determine which steps are more complex and need to be learned and which can be learned more easily or are already in the learner's repertoire. The important goal for educators is to find those activities that learners can do, teach what they can learn, and provide appropriate adaptations as needed.

Educator assistants can assist by supervising learners practicing the process of task analysis to a complex problem.

As in implementing any teaching strategy, educators need to incorporate well-established principles of teaching with each step, such as clear directives, repetition, and feedback. Modeling and prompting (full and partial) are important, as is the fading of prompts for independence. Although there is a necessary order for some steps, some steps can be taught out of order or in a different order. Repetition of steps and routines in order, however, is important for many learners, and performing one step can cue in the next step in the sequence (e.g., first we do this, then this, then this).

Additional practice:

Learners may require additional practice to master skills. This is another form of remediation. EAs can play a supervisory role while learners practice to master skills.

One-on-one classes/assistance:

One-on-one classes is another way of remediation where an individual learner receives more attention and support. It is focused on closing learning gaps. It is typically one learner with one educator. Under the guidance of the educator, EAs can assist with this, e.g. assisting individual learners with homework.

The classes can take place during lesson time, or outside school hours. Research evidence suggests that one-on-one classes is most effective when:

- it is in addition to normal lessons, rather than instead of them.
- short sessions of about 30 minutes; and
- regular sessions.

The following needs to be kept in mind when planning one-on-one classes:

- The specific needs of the learner inform the intervention of the learner.
- Educators should be flexible and adapt their teaching to meet individual learner needs, to tackle misconceptions and address critical learning gaps.
- Educator and learners should have opportunities for regular assessment and feedback. They should reflect on learning, negotiate the next steps, and redefine targets where necessary.

3. Reading across the Curriculum

Reading across the Curriculum (RAC) is a component within Language across the Curriculum (LAC). Refer to the *Strategy for Teaching English Across the Curriculum* for detailed examples per subject.

RAC, also called content literacy or active reading, is defined as "the ability to use reading and writing for the acquisition of new content in a given discipline" (McKenna & Robinson, 1990). Discipline-based instruction in reading and writing enhances learner achievement in all subjects. Studies show that reading and writing across the curriculum are essential to learning. A refocused emphasis on reading as the process of getting meaning from print to be used for analysis, synthesis and evaluation, in the context of critical literacy across the curriculum could potentially address the difficulties of learners, the goals of educators and the needs of the nation for an educated, informed, fully participatory democratic population (Horning, 2007)

RAC includes developing learner's reading skills, thus enabling them to cope with learning in content subjects. The adoption and implementation of RAC means in effect that every educator in the school should accept it as part of his/her responsibility to develop the learners' reading, writing, and speaking ability in and through the subject or activity for which he/she is responsible.

All subject educators need to be aware of:

- the linguistic processes by which their learners acquire information and understanding, and the implications for the educator's own use of language; and
- the reading demands of their own subjects, and ways in which the learners can be helped to meet them.

Language educators should play a scaffolding role for content subjects by drawing reading materials from content subjects.

The following areas need to be addressed in each subject:

- Word recognition skills, including phonetic analysis, syllabication, and using context clues to help learners unlock unknown words.
- Comprehension of ideas, be it in narrative or expository reading, including critical and creative thinking.
- Structural analysis to assist learners in understanding the significance of word order when reading.
- Syntax, including vocabulary development, in guiding learners to attach meaning to what is being read; and
- Problem-solving and gathering information in offering solutions.

Content subject educators should:

- model the language of their subject.
- integrate language and content.
- address the issue of context – same word referring to different aspects,
- address diction – e.g. murder/assassination.
- emphasise field-specific language – e.g. prefixes: *tri-/quad-/geo-/bio-*; and
- teach word attack skills.

Learners need:

- to understand the reading process (pre-reading, during reading and post-reading); (see table below)
- background knowledge in subject areas.
- strategies for previewing texts, monitoring their understanding, determining the most important ideas and the relationships among them, remembering what they read, and making connections and inferences.
- strategies for becoming independent readers in any context.
- to use methods/strategies that work for them.
- to locate and use information.
- to follow a process or argument.
- to synthesise and adapt what they learn from their reading.
- the technical and specialist vocabulary of subjects and how to use and spell these words.
- and using the patterns of language is vital to understanding and expressing different subjects. These include the construction of sentences, paragraphs and texts which are often used in a subject, e.g. language to express causality, chronology, logic, exploration, hypothesis, comparison, and how to ask questions and develop arguments.

Before/pre-reading

Skimming and scanning to preview text features and unfamiliar words, finding organizational patterns, predicting text content, using prior knowledge to think about the topic, setting a purpose for reading, reviewing and clarifying vocabulary, finding signal words

While reading

Find meaning using clues such as definitions, examples, illustrations, clarification, parenthetical notes, comparison, elaboration, typographic and design, making notes, visualizing asking/understanding comprehension questions, using graphic organizers and study guides, identify and clarify ideas, self-question to monitor comprehension, confirming and rejecting predictions

Post reading

making inferences, explaining / evaluating writer's inferences and conclusions, drawing conclusions / own opinion, evaluating, analysing and interpreting, making comparisons **understanding text features** – titles, headings, captions, illustrations, graphs, charts, diagrams, bold-faced print, italics, headings, subheadings, numberings, captions, illustrations, graphs, diagrams, maps, icons, pull down menus, key word searches

Below are **simple strategies** that learners can use when reading:

- **Previewing and marking the text:** This involves reading the foreword, skimming the table of contents, and marking the text.
- The **SQ3R** (Survey, Question, Read, Recite and Review) method.
- **Notetaking**, using the Cornell notetaking format of *record, reduce, recite, reflect* and *review*.
- **Mapping:** A form of outlining in which the material itself generates the form or outline.
- **The vocabulary preview technique**, which teaches learners to determine the meaning of words through context, word structures, and the dictionary.
- **The read, analyse, and apply technique**, which forces the learner to think critically about what he/she has read.
- **Prediction**, which uses non-reading activities to promote learner interest in the topic.
- **Differentiating** between the *main idea and supporting evidence*.
- **Directed reading activity**, in which the instructor provides questions for the learner to consider when reading.

In content subjects, a pre-lesson that includes new vocabulary and the contexts in which the vocabulary can be used may be done to assist learners.

An example of word-attack skills that could be employed in a History lesson is demonstrated in the table below:

The word (suffix) – <i>cide</i> means 'to kill'. As a result, the word before <i>cide</i> (prefix) refers to the subject on which the act of killing has been done. Learners should identify the bits into which the words have been divided. Look at the examples below:			
Word	Break down		Meaning
genocide	Geno + cide	Killing of (-cide) one's race (geno-)	Murder of own race
suicide	Sui + cide	Killing of (-cide) oneself (sui-)	Murder of oneself
patricide	Patri + cide	Killing of (-cide) father (patriarch)	Murder of own father

The EAs could help enhance the above strategy (RAC), among others, by:

- Sourcing the texts and leading learners into seeing the components of the word, e.g. suffixes and prefixes.
- Identifying language concepts applicable in the field. For example, the suffix “–cide” refers to an act of killing, of taking a life.
- Differentiating concepts as used ordinarily and as subject-specific, e.g. displacement.
- Reading chunks of word problems, e.g. in Mathematical Literacy, adhering to punctuation, such that learners understand how to read such questions.

- Draw a link between subject-tasks and concepts. For example, the instructions on “how to bake a cake” follow the same guidance provided in making an experiment, as it does the short transactional text “writing an instruction” in languages.

4. Career Guidance

Career Development Services (CDS) is a government initiative coordinated by the Department of Higher Education and Training (DHET) to provide career information, advice, guidance, and counselling services.

This section has been developed for EAs who are tasked to assist learners in the Further Education and Training (FET) phase with basic career information and referrals.

Given the important role that CAs will play in supporting educators, it is important that they are aware of career services. The role of CAs will be to give basic career information and refer learners to the various platforms available to access these services.

CAs will further be directed to platforms where they can obtain additional information to supplement what will be shared in this orientation manual. These platforms will help improve their knowledge and information on career and study options available to learners.

Educators and CAs should be aware of progression routes from their subjects and how to link subject specific content to the world of work. They should consider how the subject content could be adjusted to include some relevant career related outcomes. Educators and CAs should further create both subject specific and career related learning opportunities within regular classroom teaching and learning. Highlighting career content, topics and concepts in the classroom will allow learners to acquire and develop career management skills in meaningful contexts.

Content to be covered by CAs:

Focus	Possible CA roles (Under the supervision and assistance of Educators)
Facilitate sound career planning decisions based on informed choices about Post School Education and Training (PSET) opportunities Timely application for admission to relevant programmes Applications for funding	<ul style="list-style-type: none"> • Assist educators in highlighting career topics and concepts within regular classroom teaching. • Assist learners in recognising progression routes from their subjects and think about how they may be used in the world of work. • Provide information about study and career-related matters, e.g. PSET opportunities, labour market, occupations in high demand, etc. • Organise information sessions from different partners including government departments, institutions of higher learning, SETAs, employers and entrepreneurs • Participate and assist in facilitating school visits, exhibitions and capacity building workshops

	<ul style="list-style-type: none"> • Assist and promote the use of self-help tools and platforms, e.g. Career help website, NCAP and information hub • Source and distribute career publications • Organize employability skills workshops and assist learners with CV drafting, letter writing, personal branding, interviews, etc. <p>NB. Also for their own professional growth and development</p> <ul style="list-style-type: none"> • Assist with the actual applications, both for admission and funding opportunities.
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The following career activities should be considered:

- **Start with typical careers that learners are exposed to (in their community, on TV etc.)**

- *What careers are rare in your community and why?*
- *What kinds of careers do you think will grow in demand and why?*
- *Do you know where to find information about trends in careers?*

- **Organise career days in schools**

The EAs could also identify local resource people, such as librarians, youth workers at career centres (if any) and different professionals to share information on the work they do and allow learners to ask questions. The EAs can also ask the learners questions related to the information they have received. Inviting speakers from local institutions of higher learning, businesses and government departments might also be helpful.

- **Local career resources**

Ask learners to identify different places where they could find information on careers, study options and the world of work. You could further ask them to create a table with the name of the place, the type of information it offers and how that information can be accessed.

- **Visual presentation of different careers**

Learners can watch videos on the National Career Advice Portal, and the EAs can lead them to discuss some of the following questions:

- *What new information did you learn?*
- *What type of education and training was mentioned?*
- *What type of institutions of higher education do we have in South Africa and what qualifications do they offer?*

Resources to assist EAs in providing basic career information:

- Career help Website: The website is designed to help citizens with information on study and career information.
- The Information Hub: Information Hub is an online platform, established to encourage career practitioners to obtain information, share ideas and knowledge in the field of career development services (<https://www.careerhelp.org.za/content/infohub>)
- The National Career Advisory Portal (NCAP): The NCAP is an integrated online self-help career information tool designed to facilitate informed career, subject choice, and study decisions. Videos on various careers can be accessed through this platform (<http://ncap.careerhelp.org.za>).
- Career publications: DHET has published a range of publications that the EAs can download for more information (<http://careerhelp.org.za>).
- Curriculum and Assessment Policy Statement (CAPS) for different subject
- National Policy for an Integrated Career Development System in South Africa
- Framework for Cooperation in the provision of Career Development (Information, Advice and Guidance) Services in South Africa
- Textbooks for specific subjects

MATHEMATICAL LITERACY

EDUCATOR ASSISTANT GUIDE: MATHEMATICAL LITERACY

1.1 Orientation to CAPS/ATP:

- The Mathematical Literacy educator should ensure that a Curriculum Assistant is provided with the following package of support to ensure that they are effective in executing the duties assigned to them in the subject:
 - **Mathematical Literacy** Curriculum and Assessment Policy Statement.
 - 2025 Recovery Annual Teaching Plan (Grades 10-12).
 - 2021 Grade 12 Mathematical Literacy Exam Guidelines.
 - 2025 Grade 11 Mathematical Literacy Exam Guidelines.
 - 2025 Grade 10 Mathematical Literacy Exam Guidelines.
 - Textbook used by the school (Grades 10-12).
 - DBE subject resources (e.g. 2024 NSC Grade Diagnostic Report, Bright Ideas Study Guide, Mathematical Literacy Self Study Guides); and
 - EAC Toolkit consisting of:
 - FET Booklet containing lesson exemplars; and
 - DVD with digital lessons.

2. Classroom Management:

- A Curriculum Assistant should assist in classroom management by:
 - ✓ marking the class register on a daily basis.
 - ✓ keeping records/register of subject attendance, intervention and remediation classes.
 - ✓ assisting in the distribution and record keeping of LTSM resources (textbooks, maps, calculators, wall charts) provided to learners at the beginning of the year.
- At the end of their employment term, Curriculum Assistants should hand over these records to the responsible subject educator for retrieval purposes at the end of the year.
- Assistance Before the Lesson starts:
 - All the teaching aids to be used during the lesson by the educator should be assembled and made ready (e.g. white or black board is cleaned, chalk or white board pens are available, smart board & electric gadgets are connected, etc.).
 - Ensure that learners have taken out their workbooks or classwork books or notebooks or textbooks; to prepare them for teaching and learning.
- Assistance During the Lesson:
 - Distribute worksheets or notes or any other relevant material to be used by the subject educator during the lesson.
 - Assist learners with the consolidation of skills of doing calculations and answering questions.

- Assist learners with the consolidation of skills of analysis and interpretation of mathematical literacy annexures and graphs.
 - To observe and note the learners that might seem to be struggling during the lesson and bring them to the attention of the educator.
 - Assist learners during class discussions and group work by providing clarification and support where necessary.
 - Provide alternative answers regarding source-based or essay questions (Assist learners with the analysis of information in sources)
 - Assist in consolidating a glossary of terms to assist learners understand difficult concepts in Mathematical Literacy
 - Assistance After the Lesson:
 - Assist to write notes on the board or electronically as received from the subject educator to help learners summarise the lesson where necessary.
 - Assistants should help learners to apply/use the notes provided when doing informal and formal tasks
 - Help the subject educator to identify the learners with content gaps for assistance during intervention classes.
 - Help with the supervision of informal tasks/ remedial work/ homework/ for reinforcement as provided by the subject educator.
 - Assistants should assist with the drilling of content
 - Assistants should consolidate the skills needed for informal/formal tasks
 - Collect learners' books for control and signature by the subject educator.
- (The educator and assistants need to meet regularly to reflect on the progress of learners' content knowledge and skills acquired in preparation for the formal tasks.)

3. Supervision of Curriculum Activities:

- A Curriculum Assistant should keep a file to record all the curriculum activities assigned to him/her by the school.
- They should help with the development of lesson plans focusing on different topics for specific grades.
- They should be involved in the development of the Subject Improvement Plan and target setting for 2025.
- They should help prepare the relevant material that will be needed for teaching and learning
- A Curriculum Assistant should also help to supervise study periods, provide extra classes, and assist learners with homework to keep learners engaged.
- Assistance with Projects (investigation/ Assignments):
 - Ensure that project topics are released to the learners on time.
 - Guide learners to adhere to the project timeline from development until submission.
 - Help learners to understand and unpack the project topic with mind maps, etc.

- Help organize relevant resources for learners in both print and electronic media from the school library.
- Assist with the check list that all steps of the project have been followed before submission.
- Be responsible for the collection and record of all learner projects for the grade.
- Assistance with integrating ICT skills with content knowledge in the classroom:
 - Use their ICT skills to teach learners to search for internet resources in the subject.
 - Use the DBE Cloud to download and avail electronic resources in the subject (digital content).
 - Reinforce content taught by the educator by playing DVDs and You-Tube videos on specific Mathematical Literacy topics

Sharing these skills will empower both the CA and the learners to integrate knowledge & ICT in the classroom
- Assistance with Career Guidance:
 - CAs should help gather relevant information regarding careers in Mathematical Literacy.
 - They should design charts with university requirements for various careers in Mathematical Literacy.
 - Help learners with online application to institutions of higher learning.
 - Help learners to apply for financial assistance such as NSFAS and other bursary schemes relevant to the field of study.

4. Feedback to learners on Assessment:

- The Mathematical Literacy educator should provide the Curriculum Assistant with a Programme of Assessment (PoA) for the year in Grades10-12, indicating all the dates when the assessment tasks will be written.
- A Curriculum Assistant should help with the development, monitoring and supervision of both informal and formal assessment of learners in the subject.
- They should assist with the marking and recording of assessment activities.
- Feedback on formal assessments should be offered by the subject educator.
- A Curriculum Assistant should assist by doing a diagnostic analysis for all formal SBA to identify content gaps and misconceptions by learners.
- They should help identify learners with barriers, design intervention strategies and offer extra support and remedial classes in the subject.

5. Parental support to assist their children:

- The subject educator should work in collaboration with the Curriculum Assistant to provide feedback on learner performance to parents during parents' evening.
- They can also assist by putting together the subject records necessary for such meetings, e.g. printed mark sheets, learners' test scripts, learner attendance records, parents' register, etc. as part of evidence that might be required by a parent.

Mathematical Literacy - Grade 10 content

TOPIC	SECTION	CONTEXT
FINANCE	Income, expenditure, profit/loss, income- and expenditure statements and budgets	Small business – baking bread, tuck shop, street vendor, flea-market stall, cell-phone container; garden services; painting. washing cars, catering; crèche. Personal income and expenditure Business and/or workplace income and expenditure Income and expenditure for larger organisations
	Interest bank loans and investments	Hire purchase agreements and loans Investments – fixed deposit accounts only Bank accounts with a changing balance Other investments – retirement annuities, funeral plans, etc. All banking topics – credit cards, loans, etc.
MEASUREMENT	Perimeter and area	Household, school and wider community projects – baking, cooking, catering, building, etc.
	Time	Household, school and wider community projects – baking, cooking, catering, building, etc.
MAPS, PLANS AND OTHER REPRESENTATIONS OF THE PHYSICAL WORLD	Maps and Scales	Maps showing: <ul style="list-style-type: none"> • Seating plan and/or layout of a classroom • Layout of buildings and or sports fields at a school • Layout of stores in shopping centres • Seating plans in cinemas and sport stadiums, examinations, weddings, matric dances, etc.
	Plans	Instruction and assembly diagrams containing words and/or pictures Also, all the contexts covered in Maps and Scales
	Models	Packaging containers – fruit juice containers, chocolate boxes, etc.

Mathematical Literacy Grade 11 Content

TOPIC	SECTION	CONTEXT
FINANCE	Income, expenditure, profit/loss, income- and expenditure statements and budgets	Small business – baking bread, tuck shop, street vendor, flea-market stall, cell-phone container; garden services; painting. washing cars, catering; crèche. Personal income and expenditure Business and/or workplace income and expenditure
	Cost price and selling price	Small business – baking bread, tuck shop, street vendor, flea-market stall, cell-phone container; garden services; painting; car wash, catering; crèche;

FINANCE	Break-even analysis	Small home industry Small business Subsistence farming Tariff systems – electricity, telephone, rental options, etc.
	Interest	Banking and other financial documents
	Banking, loans and investments	Savings account Cheque/ current accounts Fixed deposit account Credit account (with a credit card) and Debit account (with a debit card) Informal loan agreements between family members Investments – fixed deposit accounts only Hire purchase agreements (<i>e.g. Buying furniture on credit</i>)
MAPS, PLANS AND OTHER REPRESENTATIONS OF THE PHYSICAL WORLD	Maps and Scales	Maps showing: <ul style="list-style-type: none"> • Seating plan and/or layout of a classroom • Layout of buildings and or sports fields at a school • Layout of stores in shopping centres • Seating plans in cinemas and sport stadiums, examinations, weddings, matric dances, etc. • Street maps with and without a grid reference • National and provincial road and rail maps • Strip charts showing distance on a portion of road • Elevation maps – e.g. comrades marathon route • Residential or housing estate
	Plans	Instruction and assembly diagrams containing words and/or pictures Also, all the contexts covered in Maps and Scales
	Models	Packaging containers – fruit juice containers, chocolate boxes, etc.

Mathematical Literacy Grade 12 Content

TOPIC	SECTION	CONTEXT
MAPS, PLANS AND OTHER REPRESENTATIONS OF THE PHYSICAL WORLD	Plans	<ul style="list-style-type: none"> • Diagrams (assembly instructions in manuals, etc.) Plans (symbols and notation, terminology, determine actual dimensions using a given scale, determine a suitable scale to draw a plan, draw 2D floor and elevation plans)
	Models	Models: <ul style="list-style-type: none"> • Solving packaging problems • 3D scale models • 2D pictures (Item arrangement, estimate material quantities)