



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

COMPUTER APPLICATIONS TECHNOLOGY

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS

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These guidelines consist of 48 pages.

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ACRONYMS

CAPS	Curriculum and Assessment Policy Statement
FET	Further Education and Training
NCS	National Curriculum Statement
NSC	National Senior Certificate
PAT	Practical Assessment Task
POA	Programme of Assessment
SBA	School-based Assessment

1. INTRODUCTION

The 16 Curriculum and Assessment Policy Statement subjects which contain a practical component all include a practical assessment task (PAT). These subjects are:

- AGRICULTURE: Agricultural Management Practices, Agricultural Technology
- ARTS: Dance Studies, Design, Dramatic Arts, Music, Visual Arts
- SCIENCES: Computer Applications Technology, Information Technology
- SERVICES: Consumer Studies, Hospitality Studies, Tourism
- TECHNOLOGY: Civil Technology, Electrical Technology, Mechanical Technology and Engineering Graphics and Design

A practical assessment task (PAT) mark is a compulsory component of the final promotion mark for all candidates offering subjects that have a practical component and counts 25% (100 marks) of the end-of-year examination mark. The PAT is implemented across the first three terms of the school year. This is broken down into different phases or a series of smaller activities that make up the PAT. The PAT allows for learners to be assessed on a regular basis during the school year and it also allows for the assessment of skills that cannot be assessed in a written format, e.g. test or examination. It is therefore important that schools ensure that all learners complete the practical assessment tasks within the stipulated period to ensure that learners are resulted at the end of the school year. The planning and execution of the PAT differs from subject to subject.

2. TEACHER GUIDELINES

2.1 Ideas and approaches for guiding learners

What are the learners required to do and provide?

Learners are required, with appropriate supervision, to:

- Choose an area of interest within the topic/scenario provided
 - Formulate a focus question that can be investigated/researched
 - Plan, research and carry out the project
 - Deliver a report to a specified audience
 - Communicate information via a website
 - Provide evidence of all stages of the project for assessment
-

How will learners go about it?

Learners will need to:

- Plan and complete an individual project, applying a range of information management skills and strategies to meet the objectives as set out by the PAT requirements
 - Identify questions to ask
 - Obtain, critically select and use selected information from a range of sources, process and analyse data, apply it relevantly and demonstrate an understanding of appropriate linkages, connections and complexities of the topic and focus question
 - Select and use a range of skills, including the applications and technologies studied, solve problems, take decisions critically, creatively and flexibly, to answer the focus question
 - Support their conclusions/recommendations using reasoned arguments based on evidence
 - Evaluate outcomes both in relation to the PAT requirements and their own learning and performance
 - Use appropriate communication skills and media to present evidence in appropriate formats
-

Skills required

Learners must be able to:

- Understand routine and non-routine procedures and problems in a wide range of familiar and unfamiliar contexts and situations
- Select and apply a range of mathematical skills and methods to find solutions
- Compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions
- Compile documents, including extended writing, and communicate information, ideas and opinions effectively and persuasively
- Manage information storage to enable efficient retrieval
- Bring together information to suit content and purpose
- Enter, develop and format information independently to suit its meaning and purpose, including text and tables, images, numbers, graphs and records
- Apply decision-making and problem-solving skills
- Extend planning, research, critical thinking, analysis, synthesis, evaluation and presentation skills

- Develop confidence in applying the content, application software and technologies they have studied
- Develop and apply skills creatively, demonstrating initiative and enterprise
- Seek advice and support when needed

What must the learners be taught beforehand?

Before embarking on the PAT, learners need to be taught the following:

- Application software and ICT skills that will enhance the production of the report and website and the development of the project covering research, analysis and execution
- Information management content and skills including the ability to define a task, setting a focus, identify and ask questions, search for and identify suitable sources of information and prior reading or relevant work already undertaken, including the evaluation of sources
- Project management skills including time, resource and task management
- The format and structure of accepted forms of a research report to include an abstract, introduction, discussions with all sources cited, conclusions, references

2.2 Dishonesty

Learners must NOT:

- Get help/guidance from others without acknowledgement (complete **Addendum C**)
- Submit work which is not their own
- Lend work to other learners
- Allow other learners access to, or the use of, their own independently-sourced source material (this does not mean that candidates may not lend their work to another candidate, but candidates should be prevented from plagiarising other learners' research)
- Include work copied directly from books, the Internet or other sources without acknowledgement and attribution
- Submit work typed or word-processed by another person

These actions constitute dishonesty, for which a penalty will be applied.

If dishonesty is identified the assessment authorities must be notified and details of any work which is not the learner's own must be recorded.

2.3 Learner declaration of authenticity of the PAT

After completing the PAT, learners need to complete the declaration of authenticity (**Addendum C**) to confirm that the work submitted is their own. All substantive advice/help given to the learners should be recorded on the declaration.

2.4 Role of the teacher

The teacher will teach the information management content, practical skills and strategies prior to each phase of the PAT.

The teacher will:

- Manage the project and supervise the learners
- Conduct an initial planning review to discuss the topic/scenario, requirements, objectives and development of the project
- Facilitate pre-reading to gain background information about the topic/scenario
- Give regular feedback to learners
- Assess the work of the learners at the end of each phase using the standardised assessment tool and record feedback given
- Endorse each learner's assessment by signing the assessment tools for each phase including a final declaration that the evidence submitted for assessment is the unaided work of the learner
- Confirm their general evaluation based on continuous observation and feedback to provide a final impression regarding independent work, management of information, insight and problem-solving
- Assess the work of the learners following any standardising and internal moderation procedures required

The teacher will assess the potential project (task definition and focus question) against the following checklist:

- Is the focus area suitable for the project?
- Does the focus question allow the learner to investigate and access the higher-level concepts and skills in the assessment objectives, i.e. plan, research, analyse, evaluate and explain, rather than simply describe and narrate?
- Are the focus question and proposed action clear and focused on an issue which can be managed within the timescale, available resources and word total?
- Do the focus question and proposed action indicate that the learner will be capable of investigating and researching the topic or carrying out the activity or task independently and within appropriate ethical or methodological guidelines?
- Is the learner likely to face difficulties in understanding the task and issues associated with the focus question?

The teacher will ensure the authenticity of the PAT as follows:

- The teacher must confirm on the assessment tool that the work assessed is to the best of his/her knowledge solely that of the learner concerned and that it was conducted under supervised/controlled conditions.
- The teacher must sign the assessment tool on completion of each phase.

2.5 Supervised/Controlled conditions

The PAT must be managed in such a manner as to be able to confirm that the work assessed is to the best of the teacher's knowledge solely that of the learner concerned.

2.6 Managing the PAT

The teacher must plan his/her work schedule according to the time allocated for the PAT in the CAT CAPS (teaching plan for Grade 12).

There are different possible approaches to managing the PAT:

Option 1:

- The teacher could dedicate a portion of the time on a weekly basis to the PAT while simultaneously continuing with normal teaching to complete the Grade 12 curriculum in the rest of the week.
- If he/she chooses this option, he/she should start with the PAT process towards the end of the first term, completing one phase per term.

Option 2:

- The teacher could dedicate a continuous period of time to the PAT, e.g. the last week(s) of each term, also completing one phase per term.

It is suggested that the teacher records the learners' topics when they start with Phase 1 in order to avoid 'instant projects' that might possibly not be the learners' own work.

2.7 Assessment evidence

Evidence presented for assessment must show how the individual learner has met the assessment objectives and criteria and include the planning, feedback and progress of the project.

The evidence for assessment will include the following:

- The project product, including a written report of approximately 1 600–2 000 words (content only, excluding cover page, table of contents, references, graphics), a website (home page plus two other pages) and other evidence (for each phase)
- The completed learner assessment tool (for each phase)

2.8 Requirements

(National Protocol for Assessment Grades R–12, Chapter 3)

Practical Assessment Task components must:

- Comprise assessment tasks that constitute the learners' PAT mark as contemplated in Chapter 4 of the Curriculum and Assessment Policy Statement for CAT
- Include a mark awarded for each assessment task (phase) and a consolidated mark
- Be guided by assessment components as specified in Chapter 4 of the Curriculum and Assessment Policy Statement for CAT
- Be available for monitoring and moderation

- Be evaluated, checked and authenticated by the teacher before being presented as the learner's evidence of performance

2.9 Non-compliance

(National Protocol for Assessment Grades R–12, Chapter 3)

The learner will be given three weeks before the commencement of the final end-of-year examination to submit any outstanding work or present himself or herself for the PAT.

If a learner submits no Practical Assessment Task in CAT, without a valid reason, the learner will NOT receive a result in the subject.

In the event of a learner not complying with the requirements of the PAT, but ONLY where a valid reason is provided, he or she may be granted another opportunity to be assessed in the assigned tasks, based on a decision by the head of the assessment body.

Should the learner fail to fulfil the outstanding PAT requirements, the mark for any outstanding PAT component will be omitted and the final mark will be recalculated for promotion purposes in terms of the completed tasks.

Valid reasons in this context include the following:

- Illness, supported by a valid medical certificate, issued by a registered medical practitioner
- Humanitarian reasons, which includes the death of an immediate family member, supported by a death certificate
- The learner appearing in a court hearing, which must be supported by written evidence
- Any other reason as may be accepted as valid by the head of the assessment body or his/her representative

In the event of a learner failing to comply with the PAT requirements of a particular subject, and where valid reasons are provided, the evidence of such valid reasons must be included with the evidence of learner performance.

3. LEARNER GUIDELINES

3.1 What is the PAT?

The PAT (Practical Assessment Task) is an individual research project and involves extended independent work. It provides an opportunity to demonstrate your information management skills. You will also be required to demonstrate your ability to use the software applications and technologies that you have studied during the year to produce quality outputs in the form of:

- A short description of the *problem* and the *task*
- A researchable focus question
- A set of *high quality* questions
- A list of appropriate information *sources*
- A questionnaire
- *Information* that has been sifted, evaluated and summarised
- A spreadsheet and database which reflects the management, processing and analysis of data and information
- A report regarding your investigation
- A simple website which conveys information about the topic you investigated

The PAT will be done in THREE phases:

- Phase 1: Find and access data and information
- Phase 2: Process data and information
- Phase 3: Present information/a solution

Your teacher will provide you with dates and deadlines for each phase. These are determined by provincial and district structures of the department of education.

3.2 Mark allocation

Note that the PAT counts 25% of your final Grade 12 mark for CAT. It is therefore crucial that you strive to produce work of a high standard.

Phase	Focus	Maximum Mark	Percentage (%)
Phase 1	Find and access data and information	36	20%
Phase 2	Process data and information	46	25%
Phase 3	Present information/a solution	73	41%
General	Observation and overall evaluation	25	14%
Total		180	100

The final PAT mark (100 = 25%) is a compulsory component of the final certification mark (100) for all candidates registered for Computer Applications Technology.

You need to complete the PAT before you start your final Grade 12 examinations.

Carefully read and take note of the sections referring to 'Dishonesty' and 'Non-compliance').

CAT subject experts will moderate your PAT and a sample will be quality assured by UMALUSI.

3.3 The topic

SA's economy desperately needs highly skilled workers

Not enough learners performing well at Maths and Science at school

SA is short of 20 000 to 70 000 ICT professionals

SA's engineering shortage widens

SA students shun Maths and Science

Skills shortages in engineering reflect SA educational system

Lack of technical skills leads to fears of water shortage crisis

South Africa's ICT skills shortage starts in Matric

All the headlines above come from publications within the last year and relate to the so-called 'STEM' crisis.

STEM is an acronym referring to the academic fields of Science, Technology, Engineering and Mathematics. There is a world-wide shortage of high school learners and university students studying these critical fields. South Africa is no exception.

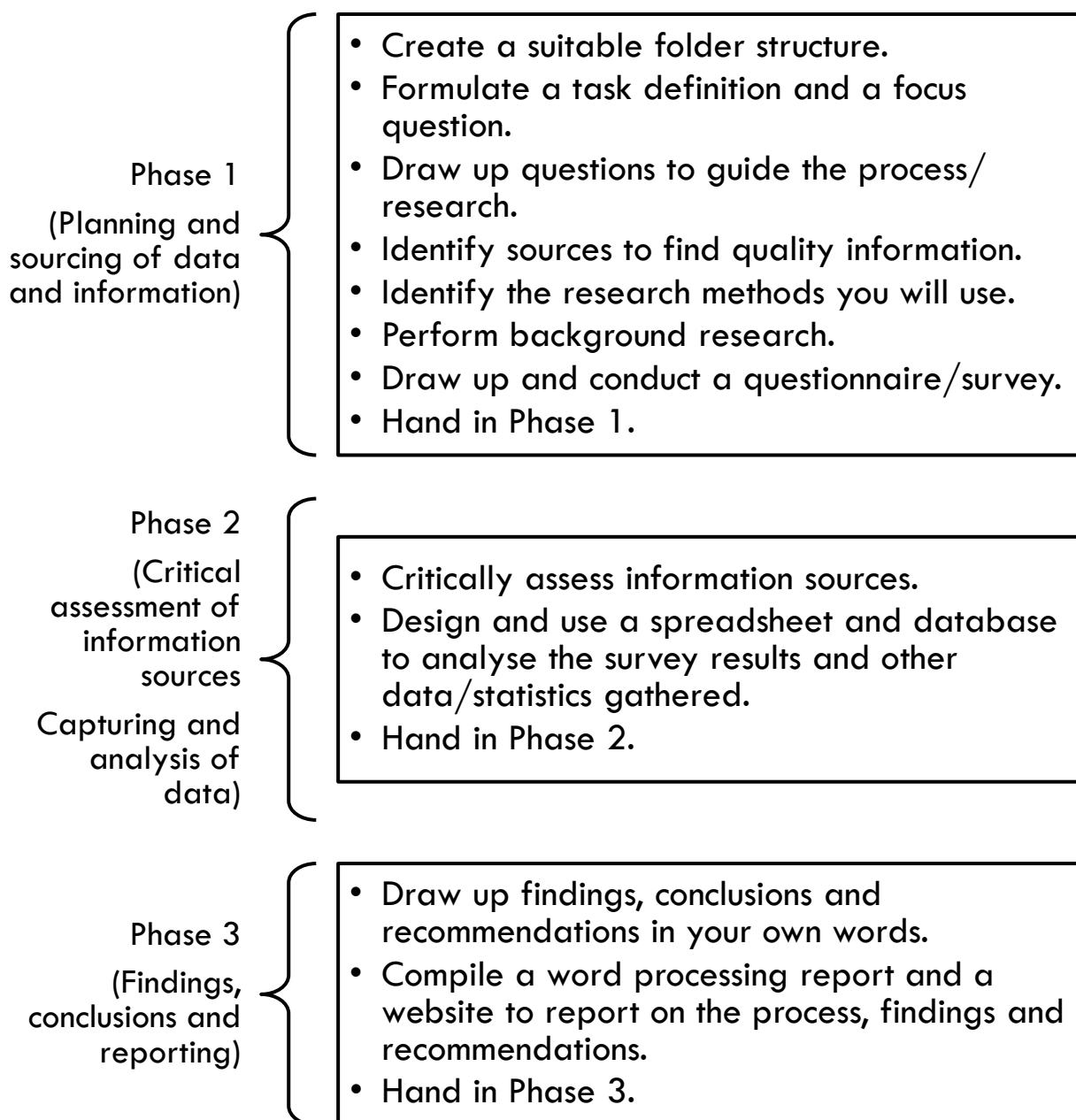
These subjects are generally not very popular and are seen as being very difficult by many learners.

Your task is to:

- Investigate the current situation in **South Africa** at national, provincial, district or school level
- Try to determine some of the underlying causes
- Gather and analyse data relevant to the investigation
- Identify possible solutions to the problem
- Present your research and findings in a report that would be suitable for use by your school or the relevant education authority, such as the local, provincial or national department of education

NOTE: You may approach this as a very broad topic **OR** preferably choose a subtopic within the overall topic (see the block above).

3.4 Overview of tasks



3.5 General

For this project you are expected to hand in your *own, original* work. You will show that your work is original by signing the declaration of authenticity (**Addendum C**) after completing the PAT.

3.6 What you will need to complete the PAT

To complete the tasks, you will need:

- An office suite with the following software:
 - o Word processing software
 - o Spreadsheet software
 - o Database software
- HTML editor (e.g. Notepad++) and web browser (e.g. Internet Explorer, Chrome or Firefox)
- Internet access to:
 - o Find data and information
 - o Administer electronic questionnaires, e.g. use e-mail to send questionnaires to respondents and receive completed questionnaires from respondents
- Access to other sources such as printed media (e.g. magazines, newspapers, brochures, textbooks) or other electronic material (e.g. e-books, e-articles)
- Access to facilities to convert hard copies to electronic documents, e.g. scanner, digital camera, smartphone
- Storage media to store and back up your work electronically, e.g. flash drive, rewritable CD/DVD

3.7 Dishonesty

As the PAT is an individual project that is part of your final promotion mark, you may NOT:

- Get help from others without acknowledgement
- Submit work which is not your own
- Lend your PAT work to other learners
- Allow other learners to access or use your own material (this does not mean that you may not lend books to or borrow books from another learner, but you may not plagiarise other learners' research)
- Include work directly copied from books, the Internet or other sources without acknowledgement
- Submit work typed by another person

The above actions constitute dishonesty, for which you will be penalised.

3.8 Non-compliance

You will be given the opportunity to submit any outstanding work (or present yourself) for the PAT as outlined in national and provincial documentation.

The absence of a PAT mark for CAT, without a valid reason, will mean that you will not receive a result for CAT at the end of Grade 12 or with the publication of the final Grade 12 results.

3.9 Preparation

1. Ensure that you understand the information management content, e.g. what a task definition is and how to formulate one, how to formulate a focus question, how to formulate research questions, types of information sources, how to evaluate information, what a questionnaire is and how to compile one, how to process data and information and how to write a report.
2. Choose a topic and do some pre-reading regarding the topic before you start with Phase 1 to gain background knowledge about the topic.
3. It could be helpful to complete a K-W-L-S chart after your pre-reading. See **Addendum D**.
4. Create an appropriate file structure to store your work. Within a main folder, each phase must have its own subfolder, with more subfolders to organise the work done in the different phases.

All the documents that you have created and the evidence that you have collected must be saved in the appropriate folders. The documents and folders must have meaningful file names and be organised in such a way that it is easy to navigate and find information.

It is your responsibility to ensure that you keep a backup copy of all your work at all times.

5. Create a blank word processing document for each of the three phases in which to record your work for each of the three phases. Give each document a sensible file name and save it in the folders created for each of the three phases.
6. Follow the instructions for each phase, create the documents requested and save them in the appropriate folders.

3.10 Instructions for Phase 1

The purpose of this phase of the PAT is to determine:

- What the problem is and what needs to be done – get 100% clarity
- What the focus of your investigation will be
- What data and information you will need for the project
- Where the information (sources) can be found

Define the task

To show that you understand why you are doing this investigation, you must be able to define what you will investigate and what you are required to do in your own words (± 300 words or half a page in font size 12 pt). This is called the **task definition**.

1. Your description should:

- Provide a clear statement of the problem (current situation) and the purpose of the investigation (desired outcome)
- Indicate the focus of your investigation, i.e. give an overview of aspects to be investigated and covered
- Indicate in broad terms how you will approach the task (study the requirements of the PAT and indicate how you intend to collect the data and information, manipulate it, etc.)
- Indicate who the target audience is for the final report that will be drafted
- Indicate how you will present the information

Use the following questions to help you write your own task definition:

- **Why** am I doing the investigation?
- **What** will be the focus of my investigation?
- Considering the PAT requirements, **how** will I go about the investigation?
- **Who** is the information for (target audience)?
- **How** must I present the information?

Determine the focus question

To manage and complete the task, you must have a clear focus.

2. Considering the topic/scenario and the requirements of the PAT, set the focus for your investigation. You must ask **ONE** broad question. This question is called the **focus question** and must clearly describe exactly what the focus of your investigation will be.

The answer to this question is the solution to the problem and must be reflected in your final report.

Ask questions that will guide your investigation

To solve the problem and to answer the focus question, you need to ask more questions to help you find appropriate data and information.

3. Read the focus question that you need to answer. The focus question should guide you to identify additional **quality** questions that will help you to find the data and information that you need.

4. Keep in mind that you will also need appropriate data and information which can be:
 - Processed using a spreadsheet
 - Saved and manipulated using a database – to create queries and reports
5. Identify headings related to the investigation (at least THREE) which you can use to organise your questions and information. Place each question under an appropriate heading.
6. Complete your list of questions (at least TEN).
7. Evaluate the **quality** of the questions. You need a variety of question types. Check for different types of questions or questions that show different levels of thinking, e.g. questions that will:
 - ① Provide facts (who, when, where, what, how many, etc.)
 - ② Give direction to the investigation (why, how, etc.)
 - ③ Support predictions or help with any changes, alternatives or variations (what if, if, etc.)
 - ④ Support your judgement or help to evaluate, critique, review or find meaning (would it be better if, what recommendation, what would be best, etc.)

NOTE: Collectively, your (minimum of) TEN (10) questions should represent at least **THREE** of these FOUR different types/levels.

8. Check your final list of headings and questions against the task definition and the focus question to make sure that you stay focused on the problem and the task.
9. Rework or change questions should it be necessary and finalise your list of headings (at least THREE) and questions (at least TEN) which you will then use to complete your investigation.

Gather information and data

To solve the problem, you need to find and identify possible sources of information and gather quality information.

10. For EACH of the (minimum of) THREE headings (see point 5 above), complete a **question and source table** as follows:
 - Start each heading (table) on a new page of your word processing document.
 - Use the table in FIGURE 1 (example of question and source table) as a guide.

Heading: _____

No.	Question	Type/ Level	Possible source
1			
2			
3			
4			
5			
...			

Figure 1: Example of question and source table

- For each question that falls under the specific heading, you must:
 - o Indicate the type or level of thinking for each question (e.g. ①, ②, ③ or ④ as discussed in point 7 above) to show that you have thought about the quality of your questions
 - o Write down a possible source where you are likely to find the information for that question (you do not have to give any details about the source at this stage)
- Use the **Internet** (at least TWO different websites) **plus** at least ONE other source, e.g. media (printed/electronic) such as newspapers, magazines, brochures, textbooks, etc. or experts (e-mail/interview), etc. You should also use the questionnaire to collect data from people.

Identify sources

11. Save a copy (URL/screenshot/copied content) of each website that you intend to use in an appropriate folder.
12. Gather all other information and data you will need to complete the project. Save electronic copies of the information and data in an appropriate folder.
13. Provide bibliographical information of the sources (at least TWO websites and ONE other source).
 - For each website, complete a table similar to the one below.

Website source	
Name of website	
Name of web page	
URL	
Author(s)/Organisation/Publisher	
Date created/updated	
Date accessed	

Figure 2: Example of source table – website

- For each printed source, such as books and magazines, complete a table similar to the one below.

Other source	
Title of book/magazine	
Article name/chapter/pages	
Author(s)	
Date published/issued	

Figure 3: Example of source table – printed media

14. Record all the information you need to create a list of references. (You could already enter these in your report document using the referencing functions of the word processing program.)

Create a questionnaire

To collect data and information that you may not find in other sources or to support data or information in other sources, you need to create a questionnaire.

15. The questions in the questionnaire should help you to gather data/information from people (i.e. data/information not likely to be found in other sources, e.g. opinions, preferences) such as:
 - What are the general difficulties or barriers that learners experience with STEM subjects?
 - Why are learners not motivated to take STEM subjects?
16. Remember that questions where people can choose an answer from a list (i.e. closed questions) are often easier to record and process.
17. Make your questionnaire easier to interpret by adding appropriate headings and clear instructions for users.
18. Design the questionnaire to suit the way in which it will be administered, e.g. use content controls/form fields to enable respondents to complete them electronically and for you to easily save the data.
19. Distribute the questionnaire to at least 30 people. Try to include a cross-section of people in terms of age, gender, etc.
20. Receive/Collect/Scan/Photograph the questionnaires after they have been completed and save them in an appropriate folder.

Phase 1 hand-in

Once you have completed Phase 1 of the project:

21. Submit a copy of your entire PAT folder to your teacher. The following should be in your Phase 1 folder:

A *single* document, typed in a word processing application, with:

- Your task definition
- Your focus question
- A table with questions (see Figure 1 for an example) for each of the headings
- A table (see Figure 2 for an example) for each website that you intend to use
- A table for each other source (e.g. printed media) that you intend to use
- The original questionnaire that you used for your survey as an annexure to the document
- Copies of information from websites you intend to use
- Copies of any other sources that you intend to use (not the entire book, only the pages you need)
- Copies of all the completed questionnaires (electronic or scanned hard copies) all saved in an appropriate, separate folder
- A screenshot showing the folder structure, including any subfolders, used for Phase 1

Your teacher will give you the date on which to submit your Phase 1 work for assessment.

3.11 Instructions for Phase 2

The purpose of this phase of the PAT is to:

- Evaluate and summarise the quality and relevance of information found from *appropriate* sources
- Create and use a suitably designed database and spreadsheet to analyse the data found and gathered

Engage with and use information and data

To be able to use the data and information to find a solution you first need to ensure that you have quality information. Engage critically with the data and information, extract the relevant information and gain an understanding by summarising the information in your own words:

1. Evaluate the *quality* of the information you found in the *sources* that you identified in Phase 1. For *each source* (e.g. website, article in magazine, etc.) complete a table similar to the one below to indicate that you examined the *quality* and *usefulness* of the **information** provided in the source (*content* of the sources that you are now going to **use**).

NOTE: You may NOT copy and paste any information from the websites or other sources into your Phase 2 document. If you do, you will NOT earn any marks for this section of the task.

Source name/title_____

Criteria	Motivation/Explanation
Authority The validity of the author	
Currency The date the website was updated	
Accuracy The correspondence of the data with other sources	
Objectivity Prejudice, bias, skewing of information	
Coverage The scope of the source	
Summary of source information	

Figure 4: Example of information evaluation table

2. Make sure that you have evidence of the source(s) you used.

Process and analyse data

Process and analyse all data (questionnaire data, as well as other data such as enrolment figures) that may require the use of a spreadsheet. Create a spreadsheet with a meaningful file name and save it in your Phase 2 folder.

3. Import/Capture and format the data in a suitable format.
 - Use suitable formatting to ensure that anybody will be able to easily interpret the results:
 - o Use formatting features such as colour, borders, wrapping and styles.
 - o Make sure that column and row headings are formatted differently to other data.
 4. Use formulae and/or functions to process data and answer the data-related questions posed in Phase 1. Take note of the requirements of the types and complexities of spreadsheet functions and formulas needed as specified in the Assessment Instruments (see point 6 of Phase 2).
 5. Summarise the results that you will use in the report on a separate worksheet.
 6. Create appropriate, meaningful graphs in your spreadsheet program that you will be able to use in your report to substantiate/support other information, claims or arguments:
 - Apply what you have learned in Mathematics/Mathematical Literacy when creating the graphs.
 - Ensure that the graphs are easy to read and interpret.
 - You should have a least **TWO relevant** graphs, although more might be useful.
- NOTE:** You should be able to use the information obtained from these formulas, functions and graphs **as findings and conclusions** in your final report.
7. Save the spreadsheet in your Phase 2 folder. Make sure that you use an appropriate file name.

Generate queries and reports

To enable further analysis of data and information you need to capture appropriate, relevant data in a database so that you can create queries and reports to support/substantiate the discussion of the problem or the recommendations/solution.

8. Create a database with a meaningful file name and save it in your Phase 2 folder. The information must be relevant to the investigation. See the section 'Overview of tasks' for ideas.
 - Capture appropriate data (at least 30 records) that could be used to answer or support questions.
 - Make use of appropriate field names and data types as well as validation techniques to ensure that the data is captured correctly.
9. Create queries (at least TWO) and at least ONE report to provide information or answer questions. Take note of the requirements of the types and complexities of functions needed as specified in the Assessment Instruments (see point 9 of Phase 2).

NOTE: You should be able to use the information obtained from these queries and report(s) **as findings and conclusions** in your final report.

NOTE: The level and the quality of the processing in the spreadsheet as well as the database will be evaluated and marks assigned accordingly.

Phase 2 hand-in

Once you have completed Phase 2 of the project:

10. Submit a copy of your entire PAT folder to your teacher. The following should be in your Phase 2 folder:
 - The completed spreadsheet with the analysis of the data
 - The completed database with relevant queries and report(s)
 - A *single* document typed in a word processing program showing:
 - o A table (see Figure 4: Example of information evaluation table) with summaries of information and notes regarding the *quality* and usefulness of the *information*
 - o A screenshot showing the folder structure, including any subfolders, used for Phase 2.

Your teacher will give you the date on which to submit your Phase 2 work for assessment.

3.12 Instructions for Phase 3

The purpose of this phase of the PAT is to:

- Interpret data and information, combine and remix the information to show *your* understanding and insight and to answer the focus question.
- Complete the report. Make use of good word processing principles and techniques. Use your own words.
- Create a website using HTML that takes into consideration appropriate layout, readability and other usability issues.

Report

To be able to communicate the knowledge and insight that you have gained as well as the recommendation/solution to the problem you need to write a report (**6–10 pages**) on your investigation and findings:

1. Apply the word processing skills you have learnt to produce a *professional* document. Take note of the style guide – see **Addendum B**.
2. Your report must consist of the following:
 - A cover page
Create a professional-looking, well-structured, custom-made cover page using appropriate content controls. The cover page must at least display the following:
 - o Your name and surname
 - o The name of your school
 - o The subject name
 - o The PAT topic
 - o The focus question
 - o A meaningful abstract/extract
 - o The date (final completion date/date handed in)
 - A table of contents as well as other references/tables, such as a table of figures or a table of authorities, etc.
 - Content
Use the data and information from Phase 2 and the understanding and insight that you have gained through your investigation to complete the report. Your report should, as a guide, consist of approximately 1 600–2 000 words (content only, excluding cover page, table of contents, references and graphics). Use the following outline:
 - o **Introduction**
Provide background information that tells the reader what the report is about. Clearly state the problem, purpose and the focus of the investigation, i.e. answer the following questions:
 - What is the problem?
 - What was the purpose of the investigation?
 - What was the focus/which aspects did you investigate?

o **Body**

- Headings from Phases 1 and 2 with relevant, appropriate information under each heading discussing the investigation and findings as well as providing arguments/making claims. All arguments/claims must be supported by evidence from the investigation and motivated/explained.
- Supporting evidence such as graphs, tables and data where appropriate.
- Interpret and integrate information where necessary.
- Provide findings/recommendations that clearly and effectively address the original problem/focus question.
- Look at the sequence and flow of the information.
- Provide citations and/or footnotes where appropriate.
- The information you give *must* be written in **your own words**.
- You will be heavily penalised if you copy and paste large chunks of text directly from the Internet or any other source. Plagiarism is completely unacceptable.
- Be original and creative.

o **Conclusion**

The conclusion should be drawn using the information and evidence presented and must address the original problem/focus question, appropriately summarised with no new information that you did not investigate.

o **List of references**

- Make use of the reference function in your word processing program and make use of a referencing style such as Harvard or APA.
- All the information you need should be found in the summary documents you created in Phases 1 and 2.

3. All information must be clearly cited where appropriate.
4. The declaration of authenticity (as an addendum) and any other supporting evidence added as appendices.
5. The different parts of the report (cover page, table of contents, appendices) must be clearly separated using appropriate word processing principles and techniques such as section breaks. Different appendices must be clearly distinguishable from the main document and each other.
6. Organise the information in any logical and coherent way.
7. Use of graphics and/or graphs:
 - The graphics and/or graphs included must be meaningful and must add value to the document.
 - Graphs, tables, data, summaries, etc. must be easy to read and interpret.
 - Provide captions.
 - Graphics obtained from the Internet or other sources must be acknowledged.
8. Use a word processing function to insert page numbers into the footer of the document. Page numbers should not be used on the cover page (title page), and page numbers of sections each as an annexure should restart and/or be formatted differently.

Website

To be able to share the knowledge and insight you have gained with a broader audience, you need to create a website.

9. Create a website with a home page linked to at least TWO other web pages. Save it in your Phase 3 folder and use meaningful file names.
10. Your website should include at least the following:
 - A title
 - An introduction
 - A functional navigation system
 - Good quality information about the topic/your investigation that is factually correct. The information should be well structured using appropriate principles and techniques such as headings, paragraphs, lists, horizontal lines
 - Hyperlinks to other good quality information where appropriate
11. Ensure that your website is well laid out, readable and has a consistent appearance. It should be easy to skim/scan the website and to find important information.
12. Different elements/parts of the pages must be clearly distinguishable.
13. Graphics/Images should be relevant to the topic or purpose of the website, enhance understanding, display correctly and be of a high quality. They must be appropriately sized and cropped. They should also take into account visually impaired users.
14. Use good, standard English and ensure there are no spelling and grammar mistakes.
15. Acknowledge information and graphics used from other sources appropriately.

Phase 3 hand-in

Once you have completed this phase of the project:

16. Submit a copy of your entire PAT folder to your teacher – make sure that the questionnaires, electronic copies of sources, web pages used as sources, report documents from Phases 1 and 2, spreadsheet, database, report and website are saved correctly.
17. Ensure that you have completed the final declaration (**Addendum C**) as part of your report.
18. Hand in the file containing any hard copy evidence that you have collected and that has not been converted to electronic format.

Your teacher will give you the date on which to submit your Phase 3 work for assessment.

4. CONCLUSION

Upon completion of the practical assessment task learners should be able to demonstrate their understanding of the industry, enhance their knowledge, skills, values and reasoning abilities as well as establish connections to life outside the classroom and address real-world challenges. The PAT furthermore develops learners' life skills and provides opportunities for learners to engage in their own learning.

Addendum A: Assessment Tools

ASSESSMENT TOOL – PHASE 1

LEARNER NAME: _____

DATE HANDED IN: _____

NOTE: This is a criterion reference tool and not a norm reference tool.

The teacher should highlight or tick applicable criteria in the column 2. The number of ticks in the column 2 does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, e.g. in item 1, if answers to all 5 questions are evident, then a mark of 4 is awarded.

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
1	TASK DEFINITION Clearly describes, <u>in the learner's own words</u>, the intention of the task/project (PAT), i.e. shows a thorough understanding of the problem (what the problem is), what he/she needs to investigate and why he/she is doing the investigation. Provides a clear overview of the focus of his/her investigation and the aspects to be investigated and covered, as well as how he/she will go about it, to whom it must be presented and how it must be presented. ☐ Why am I doing the investigation? ☐ What will be the focus of my investigation? ☐ How will I go about the investigation considering the parameters of the PAT? ☐ Who is the target audience? ☐ In what format would my findings be presented?	4	All 5 questions in the criteria are clearly answered and in learner's own words	Only 4 of the 5 questions in the criteria are clearly answered and in learner's own words	Only 3 of the 5 questions in the criteria are clearly answered and in learner's own words	Only 2 of the 5 questions in the criteria are clearly answered and in learner's own words	- Not done OR - Fewer than 2 of the 5 questions in the criteria answered OR - The questions are so vaguely answered that no discernible purpose can be found OR - Any part of the task definition is not in learner's own words	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
2	FOCUS QUESTION A clearly phrased, concise, researchable question that describes exactly what the focus of the investigation within the broader scenario will be and that is relevant to what was given in the task description. (Will clearly direct the investigation and provide an indication of the scope)							
	☐ Clearly phrased, concise, researchable question ☐ Single sentence (not two questions/paragraph, etc.) ☐ Clearly relevant to/focus point of the scenario/topic	3		• All 3 aspects clearly present	• Only 2 of the 3 aspects clearly present	• Only 1 of the 3 aspects clearly present	• No focus question OR • So vague that no discernible focus or direction can be found OR • Not researchable	
3	QUESTIONS – QUALITY (Questions to guide the research – This is NOT for the QUESTIONNAIRE.) A minimum of <u>10 questions</u> , on at least THREE different levels (e.g. 'factual/closed', 'investigate/explore', 'predict/change', 'judge/evaluate') relevant to the focus question, that will help to answer the focus question and provide a solution to the problem/focus question within the parameters of the PAT requirements, i.e. will provide qualitative as well as quantitative information.							
	☐ All questions provided are relevant to the focus question and will help to answer the focus question. ☐ Includes questions that will give data/statistical type answers, for example How many? How many times? How often? ☐ Includes a variety of questions (at least THREE questions on each of THREE different levels)	3		• Clearly contains all 3 aspects	• Clearly contains 2 of the 3 aspects	• Clearly contains only 1 of the 3 aspects	• No questions OR • All 3 aspects inappropriate	
4	QUESTIONS – TECHNICAL ASPECTS Technical aspects such as organisation of questions, number of questions and sources indicated							
	☐ All questions organised under appropriate headings that are relevant to the topic (at least THREE headings) ☐ Possible appropriate source type (e.g. Internet/printed media/people) indicated for each question ☐ At least 10 questions included	3		• Clearly contains all 3 aspects	• Clearly contains 2 of the 3 aspects	• Clearly contains 1 of the 3 aspects	• Not done OR • All 3 aspects inappropriate	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
5	SOURCES – BIBLIOGRAPHICAL INFORMATION Appropriate sources identified to answer questions and source details clearly indicated for ALL sources as required by the type of source and referencing functions in a word processing program							
	☐ Source name ☐ Article name/web page/chapter/pages ☐ URL (if obtained from the Internet) ☐ Dates (created/published/issued/updated/accessed) ☐ Author/organisation/publisher	4	All <i>applicable</i> aspects addressed for all sources using source and referencing functions in word processor	<i>Applicable</i> aspects addressed for at least two sources using source and referencing functions in word processor	<i>Applicable</i> aspects addressed for at least one source using source and referencing functions in word processor	Some <i>applicable</i> aspects addressed for at least one source using source and referencing functions in word processor	- No source details provided OR - Source and referencing functions of word processor not used	
6	SOURCES – TECHNICAL Learner identified a variety of sources (at least THREE sources, <i>excluding questionnaire</i>)							
	Number of sources, <i>excluding questionnaire</i> : ☐ 2 websites <i>plus</i> ☐ 1 from another type/media (e.g. magazine, newspaper, brochure, textbook – printed or electronic format), e-mail/ interview with an expert	2			Correct number and variety of sources	Too few OR not an appropriate variety	Not provided	
7	QUESTIONNAIRE – QUALITY Well thought-out questionnaire that will provide answers to questions <u>not likely to be found in other sources</u> or that will lead to verifying, clarifying or supplementing other information. Some questions will enable the processing of data using a spreadsheet and a database.							
	☐ All questions are relevant ☐ Questions mostly provide answers to questions <u>that cannot be found in other sources</u> or that supplement/verify/clarify ☐ Clear instructions guide users in the answering of questions ☐ At least 30 completed forms	4	Clearly contains all 4 aspects	Clearly contains 3 of the 4 aspects	Clearly contains 2 of the 4 aspects	Clearly contains 1 of the 4 aspects	- No questionnaire OR - None of the 4 aspects clearly present	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
8	QUESTIONNAIRE – TECHNICAL Electronically created questionnaire, professionally and appropriately designed according to the way in which it will be administered (online, via e-e-mail or printed, e.g. created in a word processing program using appropriate principles and techniques such as controls/form fields or created in Google Docs or an editable PDF) that will ensure easy and appropriate answering of questions as well as accurate importing/capturing and processing of data and information.							
	☐ Form is created electronically, appropriate to the way it will be administered ☐ Appropriate headings with appropriate questions (Appropriate questions grouped together under relevant headings) ☐ Maximum one (1) page with at least 5 questions, excluding biographical data (e.g. name, gender, age, address) ☐ Professional formatting and layout (e.g. appropriate word processing techniques)	4	Clearly contains all 4 aspects	Clearly contains 3 of the 4 aspects	Clearly contains 2 of the 4 aspects	Clearly contains 1 of the 4 aspects	- No questionnaire OR - None of the 4 aspects clearly present	
9	EVIDENCE AND ORGANISATION OF DOCUMENTS Format and organisation of material/evidence							
	☐ Electronic and/or hard copies of all documents (including evidence of sources) available ☐ All organised into a logical folder structure (subfolders within each phase), clearly named and easy to find/navigate ☐ Meaningful folder and file names used	2			Clearly contains all 3 aspects	Clearly contains 2 of the 3 aspects	- No evidence OR - Contains only 1 of the 3 aspects	
10	PHASE 1 DOCUMENT One word processing document that contains all information required for Phase 1 (including a copy of the questionnaire as an annexure but excluding other information sources) and that provides hyperlinks to other files/evidence/sources to facilitate easy navigation and easy access to all other files/evidence/sources							
	☐ All required work/information for Phase 1 presented as a single (1) document ☐ Includes screenshot of folder structure ☐ Hyperlinks/Bookmarks in document and/or source table lead to relevant information/sources and work/open correctly	3		Clearly contains all 3 aspects	Clearly contains 2 of the 3 aspects	Clearly contains only 1 of the 3 aspects	No document	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
11	PHASE 1 DOCUMENT – TECHNICAL QUALITY Professional presentation that uses sound and correct word processing principles and techniques							
	Well-structured, legible, professional document: ☐ Appropriate, readable fonts, size (10–12 pt) and acceptable number of fonts (not more than two); headings given due prominence (also in tables) (headings fonts – 10–14 pt) ☐ Appropriate line and paragraph spacing (no 'empty' paragraphs) ☐ Appropriate word spacing (not two or more spaces between words or after punctuation marks) and punctuation (period at end of sentence, capital letter at beginning of sentence) ☐ No spelling or grammar mistakes ☐ Consistent formatting throughout	4	Clearly contains all 5 aspects	Clearly contains 4 of the 5 aspects	Clearly contains 3 of the 5 aspects	Clearly contains 2 of the 5 aspects	- No document OR - Contains only 1 of the 5 aspects OR - Totally unstructured, not readable or unprofessional	
TOTAL MARK		36	MARK OBTAINED					
Comment/feedback: 								
Teacher name: _____ Teacher signature: _____ Date: _____								

ASSESSMENT TOOL – PHASE 2**LEARNER NAME:** _____**DATE HANDED IN:** _____**NOTE:** This is a criterion reference tool and not a norm reference tool.

The teacher should highlight or tick applicable criteria in the column 2. The number of ticks in the column 2 does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, e.g. in item 1, if answers to all 5 questions are evident, then a mark of 4 is awarded.

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
1	INFORMATION – EVALUATION Tables have been completed for at least TWO websites and one other source, clearly evaluating the quality of the source and its contents by providing a clear, relevant motivation/explanation for each aspect.							
	☐ Authority ☐ Currency ☐ Accuracy ☐ Objectivity ☐ Coverage	4	All 5 aspects clearly addressed and correctly motivated/ explained for all sources	At least 4 of the 5 aspects clearly addressed and correctly motivated/ explained for all sources	At least 3 of the 5 aspects clearly addressed and correctly motivated/ explained for all sources	At least 2 of the 5 aspects clearly addressed and correctly motivated/ explained for all sources	- Only 1 of the 5 aspects clearly and correctly done for all sources - Not done for all sources	
2	INFORMATION – SUMMARY Information from each source used is summarised in the learner's own words. Summary gives information available in the source, which is relevant to the topic and which will help to answer questions or is useful for solving the problem.							
	☐ Summaries completed for all sources ☐ Information is relevant to the topic ☐ Information will answer the focus question ☐ All summaries are in learner's own words	4	All 4 aspects clearly present	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	- None of the aspects clearly present OR - Not done	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
3	SPREADSHEET – TECHNICAL Well designed and formatted using appropriate formatting techniques (borders, shading, font alignment, etc.) with good layout and is easy to read and interpret (row and column headings stand out). The format should contribute to readability, not hinder it.							
	☐ Well designed and formatted ☐ Good layout, easy to read and interpret	2			Both aspects clearly present	Only 1 of the 2 aspects clearly present	- No spreadsheet OR - Neither of the 2 aspects clearly present	
4	SPREADSHEET – QUALITY Relevant data used. Processing is correct and relevant/appropriate and will answer questions, show trends/patterns, provide insights and contribute to the solution.							
	☐ Relevant, appropriate data collected and captured ☐ Relevant/Appropriate processing and analysis of data ☐ Analysis includes relevant, appropriate data other than the questionnaire/survey data ☐ No processing errors/error indicators	4	Clearly contains all 4 aspects	Clearly contains 3 of the 4 aspects	Clearly contains 2 of the 4 aspects	Clearly contains only 1 of the 4 aspects	- Most data not relevant OR - Majority of the processing not appropriate/relevant or totally incorrect	
5	SPREADSHEET – GRAPHS Graphs are relevant, meaningful and serve a purpose, are of the correct type and formatted to be easy to interpret (headings, labels, legends, etc.). The graphs will help to answer questions and contribute to the solution/explain aspects of the problem/solution.							
	☐ At least two relevant, meaningful graphs that will contribute to the solution ☐ Second relevant, meaningful graph, that will contribute to the solution ☐ Appropriate types of graph used ☐ Graph(s) easy to interpret	4	Clearly contains all 4 aspects	At least 3 aspects included	At least 2 aspects included	At least 1 aspect included	- No charts/graphs OR - None of the four aspects included	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
6	SPREADSHEET – COMPLEXITY The following represent the four different levels of complexity of spreadsheet functions: ① Simple functions that only include a range/list of cell references/values/list of text (e.g. sum, max, min, count, average, mode, median, len, value) or a formula to substitute any one of these functions or simple calculations using only one arithmetic operator (+, −, *, /) ② Functions that include a range/text/values/list of cell references plus one parameter/criterion (e.g. round, large, small, left, right, concatenate) or functions using range/text/list of cell references/values plus criterion with one relational operator (e.g. countif, sumif) or calculations using a combination of arithmetic operators, brackets or calculations using a combination of any two simple functions at level ① ③ Functions including a range/text/list of cell references plus two parameters/criteria (e.g. power, mid, find) or simple if function (if(test, true, false)) or a combination of more than two functions or calculations using a combination of arithmetic operators, brackets and other functions or calculations using date/time functions or variations of known functions (e.g. countifs, roundup, randbetween, text, maxa) ④ Lookup or nested if function/if function using Boolean operators or complex calculations (e.g. combine functions and arithmetic/relational operators) or functions not in curriculum NOTE: ☐ Any incorrect/meaningless aspect/function does NOT qualify for consideration ☐ To obtain all four marks, the learner must have at least one meaningful calculation containing an aspect from each of the four levels ☐ List any function (where applicable) used that is not part of the curriculum							
		4	Meaningful calculations using functions from all FOUR levels (①, ②, ③ and ④)	Meaningful calculations using functions from any THREE different levels (①, ②, ③ or ④)	Meaningful calculations using functions from any TWO different levels (①, ②, ③ or ④)	Meaningful calculations using functions from only ONE level (①, ②, ③ or ④)	- No spreadsheet OR - No relevant, meaningful processing done	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
7	DATABASE – DESIGN Well designed and formatted with appropriate data types, field names and field properties/components to ensure accurate input/capturing of data. A single field contains one piece of data (e.g. title, name, surname in three separate fields)							
	☐ At least one table created ☐ All fields have appropriate names, data types and sizes ☐ Use of appropriate components/properties to ensure accurate capturing where appropriate ☐ All fields contain single data units (e.g. separate fields for Name and Surname)	4	• All 4 aspects clearly present	• At least 3 of the 4 aspects clearly present	• At least 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• No database OR • None of the 4 aspects clearly present	
8	DATABASE – PROCESSING At least 30 records present, plus two relevant, meaningful queries and one relevant, meaningful report that are correct and will inform/support the problem/solution (NOTE: Incorrect/Meaningless queries or reports do NOT qualify for any marks)							
	☐ At least 30 appropriate, relevant records in 1 or more tables ☐ At least two relevant queries that are correct and meaningful and will inform/support the problem/solution/ demonstrate understanding of appropriate links ☐ At least one relevant, meaningful and correct report that informs/supports the problem/solution	3		• All 3 aspects clearly present	• At least 2 of the 3 aspects clearly present	• At least 1 of the 3 aspects clearly present	• No database OR • None of the 3 aspects clearly present	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
9	DATABASE – COMPLEXITY OF QUERIES The following represent the four different levels of complexity of database queries: ① Only fields with 1 simple criterion (e.g. 'X', >X, =X, not 'X', Is Null) ② One field with combined criteria using Boolean and relational operators (e.g. 'X' or 'Y', >1 and < 10 or replacements such as between 1 and 10) or 1 field with criterion including wild cards ③ Calculated field (e.g. sum, min, max, avg, count or calculations replacing these functions or calculation using 1 arithmetic operator (+, −, *, /)) or 1 field with a criterion using complex combinations (e.g. avg[Z] and between 1 and 10) ④ Calculated field with complex calculations (e.g. combine functions and date/arithmetic/relational operators) or query using more than one table or query using criteria not in curriculum, e.g. iif, len							
	NOTE: ☐ Any incorrect/meaningless aspect does NOT qualify for consideration ☐ To obtain all four marks, the learner must have at least one query containing all four of the aspects ☐ List any function (where applicable) used that is not part of the curriculum	4	Meaningful use of aspects from all FOUR levels (①, ②, ③ and ④)	Meaningful use of aspects from any THREE different levels (①, ②, ③ or ④)	Meaningful use of aspects from any TWO different levels (①, ②, ③ or ④)	Meaningful use of aspects from only ONE level (①, ②, ③ or ④)	- No database OR - No relevant, meaningful queries done	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
10	DATABASE – COMPLEXITY OF REPORT The following represent the FOUR different levels of complexity of the database report(s): ① Simple, not grouped, no calculations, no filters, but sorted on 1 field ② Not grouped with 1 simple calculation only (min, max, sum, avg, count) or grouped without any calculations or grouped with sorted option ③ Grouped with 1 simple group and 1 simple report calculation or not grouped with simple report calculations on more than one field ④ Grouped with simple report and group calculations on more than 1 field or grouped/not grouped with 1 calculated field added or grouped/not grouped with complex group and/or report calculation (combination of fields, operators, functions) or function used transferred from spreadsheet/not in curriculum							
	NOTE: ☐ Any incorrect/meaningless aspect does NOT qualify for consideration ☐ To obtain all four marks, the learner must have at least one query containing all four of the aspects ☐ List any function (where applicable) used that is not part of the curriculum	4	Meaningful use of aspects from all FOUR levels (①, ②, ③ and ④)	Meaningful use of aspects from any THREE different levels (①, ②, ③ or ④)	Meaningful use of aspects from any TWO different levels (①, ②, ③ or ④)	Meaningful use of aspects from only ONE level (①, ②, ③ or ④)	- No database OR - No relevant, appropriate report(s)	
11	EVIDENCE AND ORGANISATION OF DOCUMENTS Format and organisation of material/evidence							
	☐ Electronic and/or hard copies of all documents/files (including spreadsheet and database) available ☐ All organised into a logic folder structure, clearly named and easy to find/navigate	2			Clearly contains both aspects	Clearly contains 1 of the 2 aspects	- No evidence OR - Contains none of the aspects	
12	PHASE 2 DOCUMENT One word processing document that contains all information required for Phase 2 (including a copy of the questionnaire as an annexure but excluding other information sources) and that provides hyperlinks to other files/evidence/sources to facilitate easy navigation and easy access to all other files/evidence/sources							
	☐ All required work/information for Phase 2 presented as a single (1) document ☐ Includes screenshot of folder structure ☐ Hyperlinks/Bookmarks in document and/or source table lead to relevant information/sources and work/open correctly	3		Clearly contains all 3 aspects	Clearly contains 2 of the 3 aspects	Clearly contains 1 of the 3 aspects	No document	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
13	PHASE 2 DOCUMENT – TECHNICAL QUALITY Well-structured, legible, professional document that uses sound and correct word processing principles and techniques							
	☐ Appropriate, readable fonts, size (10–12 pt) and acceptable number (not more than two); headings given due prominence (also in tables) ☐ Appropriate line and paragraph spacing (no 'empty' paragraphs) ☐ Appropriate word spacing (not two or more spaces between words or after punctuation marks) and punctuation (period at end of sentence, capital letter at beginning of sentence) ☐ No spelling or grammar mistakes ☐ Consistent formatting throughout	4	Clearly contains all 5 aspects	Clearly contains 4 of the 5 aspects	Clearly contains 3 of the 5 aspects	Clearly contains 2 of the 5 aspects	- No document OR - Contains fewer than 2 of the 5 aspects OR - Totally unstructured, not readable or unprofessional	
TOTAL MARK		46	MARK OBTAINED					
Comment/feedback: 								
Teacher name: _____ Teacher signature: _____ Date: _____								

ASSESSMENT TOOL – PHASE 3**LEARNER NAME:** _____**DATE HANDED IN:** _____**NOTE:** This is a criterion reference tool and not a norm reference tool.

The teacher should highlight or tick applicable criteria in the column 2. The number of ticks in the column 2 does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, e.g. in item 1, if answers to all 5 questions are evident, then a mark of 4 is awarded.

REPORT

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
1	REPORT – INTRODUCTION Clear, concise introduction providing background information that informs the reader what the report is about. Clearly states the problem, purpose and the focus of the investigation. Answers the questions: What is the problem? What was the purpose of the investigation? Why did you do the investigation? What was your focus (which aspects did you investigate)?							
	☐ Clear overview of problem ☐ Purpose of the investigation clearly stated ☐ Clear focus: which aspects investigated	4	All 3 aspects clearly stated and no other/unnecessary information	All 3 aspects clearly stated but with other/unnecessary information	Only 2 of the 3 aspects clearly stated	Only 1 of the 3 aspects clearly stated (only copy of task definition)	None of the 3 aspects clearly stated	
2	REPORT – DISCUSSION (BODY) – ORGANISATION Content is organised using meaningful headings similar to headings in Phase 1. Headings group appropriate, relevant information together. Body paragraphs for each heading discuss the investigation. Information is logically and coherently structured.							
	☐ At least four appropriate headings relevant to the investigation ☐ Relevant information grouped together under the appropriate headings ☐ Headings same as/similar to headings in Phase 1 – clear link	3		All 3 aspects clearly present	Only 2 of the 3 aspects clearly present	Only 1 of the 3 aspects clearly present	None of the 3 aspects present or correctly done	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
3	REPORT – DISCUSSION (BODY) – INFORMATION USED, CONTENT RELEVANCE AND FLOW Information used from Phases 1 and 2 (summaries, questionnaire, spreadsheet and database) and all information/data/graphics (graphs, charts, pictures) used are relevant to the investigation/supportive of different aspects within the investigation and address the minimum information requirements (problem, impact, consequences, solutions, role, facts/stats). The information is logically sequenced and flows naturally from one aspect to the next to ensure easy reading and clear understanding.							
	☐ All information is appropriate, relevant and addresses the minimum information requirements ☐ Relevant, appropriate data/information used from all processing in Phases 1 and 2 ☐ All graphics used are relevant and appropriate ☐ All information logically sequenced and flows naturally from one heading/paragraph to next	4	All 4 aspects clearly present; easy to read and understand – reader has a clear understanding	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	None of the 4 aspects clearly present	
4	REPORT – DISCUSSION (BODY) – ARGUMENTS & SUPPORTING INFORMATION Discussion contains at least three relevant, appropriate arguments/claims related to the investigation that are supported by data/information gathered and processed (charts/graphs/queries/reports, etc.) or manipulated (combined, integrated and synthesised from various sources) and includes a meaningful explanation of how or why the data/information supports the argument/claim (connects data/information to argument/claim)							
	☐ At least 3 claims/arguments that are appropriate and relevant to the investigation ☐ All claims/arguments are supported by relevant, appropriate data/information ☐ Meaningful explanation of how or why the evidence supports the argument/claim	4	All 3 aspects clearly present for all claims/arguments	All 3 aspects clearly present for most claims/arguments	- Only 2 aspects clearly present for all claims/arguments OR - All 3 aspects clearly present for only 1 claim/argument	- Only 1 aspect clearly present for all claims/arguments OR - Only 2 aspects clearly present for some claims/arguments	- None of the 3 aspects clearly present OR - Not done OR - Claims/Arguments not meaningful/ totally irrelevant	
5	REPORT – FINDINGS/RECOMMENDATIONS All findings/recommendations are clear and effectively address the original problem/investigation. The findings/recommendations convey knowledge gained and the learner's understanding of the problem and investigation, as well as some new/thoughtful ideas/insights that address the problem.							
	☐ All findings/recommendations clearly stated ☐ All findings/recommendations clearly and effectively address/support the original problem/investigation ☐ All findings/recommendations convey knowledge gained/understanding of the problem and investigation ☐ Findings/Recommendations <u>include</u> some new/thoughtful ideas/insights about the problem/investigation	4	All 4 aspects clearly present	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	- None of the 4 aspects clearly present OR - No findings/recommendation	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
6	REPORT – CONCLUSION Meaningful and logical conclusion drawn from the information and evidence presented, and which addresses the original problem/investigation, appropriately summarised. Any new information presented at this point must have been appropriately investigated/researched, with supporting evidence.							
	☐ Conclusion present ☐ Conclusion drawn from information presented in report and addresses the original problem statement/focus in light of the evidence presented ☐ Conclusion is meaningful and logical ☐ No new information included that is not researched	4	All 4 aspects clearly present	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	- None of the 4 aspects clearly present OR - No conclusion	
7	REPORT – PLAGIARISM ISSUES Presented in learner's own words with all sources cited and all graphics from other sources acknowledged. Signed declaration of authenticity is included.							
	☐ All sources used are clearly and appropriately acknowledged ☐ Graphics from other sources are clearly and appropriately acknowledged ☐ Declaration of authenticity signed and added as appendix	4	All 3 aspects clearly present and report is clearly learner's own words	Only 2 of the 3 aspects clearly present and report is clearly learner's own words	Only 1 of the 3 aspects clearly present and report is clearly learner's own words	Any number of aspects clearly present, but not in learner's own words in one or more places	- Definitely not learner's own words OR - None of the 3 aspects clearly present	
8	REPORT – TECHNICAL ASPECTS – ACKNOWLEDGEMENT & EVIDENCE Professional, well-structured document that gives credit to sources used, using sound word processing functions, principles and techniques							
	☐ Automatic reference list/bibliography correctly inserted ☐ Automatic, appropriate captions correctly inserted for all tables/figures ☐ Appropriate citations correctly used and inserted ☐ Supporting documentation added as part of document (appendices), clearly distinguishable from main document (e.g. different sections, restarting page numbers, descriptive headers/footers)	4	All 4 aspects clearly present	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	- None of the 4 aspects clearly present OR - Not done	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
9	REPORT – TECHNICAL ASPECTS – COVER PAGE Professional, well-structured, custom-made cover page using appropriate content controls. Displays all required information (name, surname, school name, date, subject name, PAT topic, focus question as well as a meaningful abstract/extract)							
	☐ Professional, custom-made cover page using appropriate controls for type of information correctly ☐ All required information included on cover page as in heading above ☐ Meaningful abstract/extract included	4	• All 3 aspects clearly present	• Only 2 of the 3 aspects clearly present	• Only 1 of the 3 aspects clearly present	• Cover page added with no suitable control components	• No cover page added	
10	REPORT – TECHNICAL ASPECTS – EASE OF NAVIGATION Professional, well-structured document that is easy to navigate and in which information is easy to find							
	☐ Automatic table of contents, correctly inserted ☐ Other tables (tables, figures) correctly inserted ☐ Page numbers appropriately used and correctly inserted (e.g. no page number on cover page, page numbers of each annexure restart at 1/appears in a different format) ☐ Hyperlinks/Bookmarks (other than the table of contents) appropriately and correctly used to navigate within document or to other documents, e.g. spreadsheet	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • Totally dysfunctional	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
11	REPORT – TECHNICAL ASPECTS – GENERAL One word processing document that contains all information required for Phase 3, professionally rounded off, using appropriate word processing functions, principles and techniques correctly							
	Well-structured, legible, professional document: ☐ Appropriate, readable fonts, size and number (not more than two) ☐ Headings given due prominence (also in tables) ☐ Appropriate line and paragraph spacing (no 'empty' paragraphs) ☐ Correct word spacing (only one space between words or after punctuation marks), and correct punctuation (full stop at end of sentence, capital letter at beginning of sentence) ☐ No spelling or grammar mistakes ☐ Consistent formatting throughout	4	• All 6 aspects clearly present	• Only 5 of the 6 aspects clearly present	• Only 4 of the 6 aspects clearly present	• Only 3 of the 6 aspects clearly present	• Fewer than 3 of the 6 aspects clearly present - OR • Totally unstructured, not readable or unprofessional	
TOTAL MARK		43						MARK OBTAINED

WEBSITE

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
12	WEBSITE – GENERAL ASPECTS							
	☐ Home page with title included ☐ At least two other webpages ☐ Saved as HTML and opens correctly – no errors ☐ Suited to audience	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	
13	WEBSITE – GENERAL APPEARANCE							
	☐ All pages – consistent appearance (formatting, background, colours, layout, font, etc.) ☐ Colours/Textures of background, fonts, form a pleasing palette, do not detract from the content or readability ☐ Point size varies appropriately for headings/subheadings and text, and enhances readability ☐ White space and alignment used effectively to organise material and enhance readability	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	
14	WEBSITE – ORGANISATION AND READABILITY Correct grouping and structuring of elements and information. Layout and organisation enhances readability and understanding.							
	☐ Attractive and usable layout. Easy to locate all important elements/information (e.g. easy to read and skim/scan) ☐ Related information grouped together ☐ Different elements/parts (e.g. header/banner/title, body/content, footer, credits) clearly distinguishable/separated, e.g. using horizontal lines ☐ Techniques such as lists, tables, paragraphs and headings are used appropriately and correctly to structure information	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
15	WEBSITE – GRAPHICS AND ACCESSIBILITY Relevance, quality and accessibility of graphics							
	☐ All graphics are relevant to the topic/purpose of the web site ☐ There are no broken images (images display) ☐ All graphics are thoughtfully cropped/sized, are of high quality and enhance reader interest or understanding ☐ All images have an ALT tag that describes the image and its link to ensure accessibility to visually impaired people	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	
16	WEBSITE – NAVIGATION Functional, logical/intuitive and user-friendly navigation							
	☐ Made use of working hyperlinks to create a navigation system which allows users to move from the home page to related pages and back ☐ Hyperlinks use meaningful descriptive text ☐ Easy to navigate and there are no dead links ☐ Navigation system is consistently placed throughout website	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	
17	WEBSITE – INFORMATION – QUALITY Information presented in the website is relevant and factually correct, without unnecessary duplication of any information, to enable visitors to learn more about the topic/problem. References to other good quality information provided through functional hyperlinks.							
	☐ Website contains good quality, relevant and factually correct content about the topic ☐ Demonstrates good understanding of the information/material included in the website, and where to find additional, good quality information presented in functional hyperlinks ☐ Good standard language used, suited to target group with no spelling and grammar mistakes ☐ No unnecessary duplication of information	4	• All 4 aspects clearly present	• Only 3 of the 4 aspects clearly present	• Only 2 of the 4 aspects clearly present	• Only 1 of the 4 aspects clearly present	• None of the 4 aspects clearly present OR • No website	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
18	WEBSITE – PLAGIARISM Fair use guidelines followed that recognise material borrowed from other sources							
	☐ Graphics/Images from other sources clearly acknowledged ☐ Clear, easy to locate and accurate citations for all borrowed material	4	Both aspects clearly present and content written in learner's own words	Only 1 of the 2 aspects clearly present and content written in learner's own words	Either or both aspects present but any one part not learner's own words	Either or both aspects present but mostly not learner's own words	- Neither of the 2 aspects clearly present OR - Not learner's own words	
19	WEBSITE – ADDITIONAL TAGS/FEATURES USED (OUTSIDE CURRICULUM) Learner demonstrates knowledge/skills not included in the curriculum, but that enhance the website and used appropriately and meaningfully.							
	☐ List the tags/aspects (maximum 2) 	2	One mark for each feature used correctly, appropriately, meaningfully and that clearly enhances the website (to a maximum of 2 marks)					
TOTAL MARK		30	MARK OBTAINED					
Comment/feedback: _____ _____ Teacher name: _____ Teacher signature: _____ Date: _____								

General evaluation based on continuous observation and final impression

The learner/The learner's PAT:

20–25 marks	- Independently identifies his/her focus area and produces effective planning - Carries out the project in a highly organised fashion, showing excellent independent working skills and clear evidence of responding very effectively to guidance given - Shows clear evidence of detailed, critical investigation involving the selection and evaluation of a wide range of resources - Processes and analyses data effectively and applies findings to good effect - Shows clear links between sources of information and the focus question and fully explores the complexities of the topic - Identifies, fully explores and addresses problems and/or issues - Selects and uses a range of skills including, where appropriate, new technologies, to achieve high quality outcomes that fully realise the intentions of the project and to draw conclusions - Carries out full, in-depth evaluations, showing a high level of insight into how he/she conducted the project and the limitations of the resources at his/her disposal - Effectively presents conclusions clearly, in an appropriate format, with excellent supporting evidence - Shows a deep and extensive knowledge and understanding of the focus area of investigation through his/her responses to questions
15–19 marks	- Identifies his/her focus area with minimum guidance and produces planning that enables him/her to demonstrate some higher-level organisational skills - Works independently in carrying out the project and responds to guidance given - Shows evidence of reasonable investigation involving the selection and evaluation of a reasonable range of sources - Processes and analyses data and applies findings - Shows links between sources of information and the focus question and explores some complexities of the topic - Identifies and addresses some problems and/or issues - Employs a range of skills to generally achieve the intended outcomes to a competent standard. In his/her evaluations, he/she reflects effectively on the final outcome and on his/her strengths and weaknesses in carrying out the project. - Clearly presents conclusions in an appropriate format with sound supporting evidence - Shows a good knowledge and understanding of the focus area of investigation through his/her responses to questions
10–14 marks	- Identifies his/her focus area with reasonable guidance and produces a workable planning - Mostly works independently and shows some organisational skills in completing the project. There is some evidence that he/she responds to guidance given. - Shows evidence of some investigation involving a selection and evaluation of minimum resources - Processes and analyses some of the data and applies some findings - Makes some links between the sources of information and the focus question - Uses a range of skills to partially realise the intended outcomes - Presents outcomes and conclusions with some supporting evidence - Demonstrates reasonable knowledge and understanding of the focus area through his/her responses to questions
1–9 marks	- Identifies his/her focus area with extensive guidance and produces minimum planning - Shows little organisational skills in completing the project. There is minimal evidence that he/she has responded to guidance given. - Shows limited investigation involving limited resources - Processes and analyses minimal data and applies minimum findings - Makes little or no links between the sources of information and the focus question - Shows limited skills used to reach intended outcomes. Gives little thought to the way the final outcomes have emerged and to this/her own strengths and weaknesses in carrying out the project. - Presents limited outcomes and conclusions with little or no supporting evidence - Demonstrates limited knowledge and understanding of the focus area through his/her responses to questions - Provides evidence of a high degree of plagiarism

LEARNER NAME: _____

DATE: _____

Assessment summary

Phase	Focus	Maximum Mark	Mark Obtained
Phase 1	Find and access data and information	36	
Phase 2	Process data and information	46	
Phase 3	Present information/solution – Report	43	
Phase 3	Present information/solution – Website	30	
General	Observations made and overall evaluation	25	
Total		180	/180
			/100

Authentication declaration by teacher

I hereby declare that, to the best of my knowledge, the work assessed is solely that of the learner concerned (except where there is clear acknowledgement and record of any substantive advice/assistance given to the learner) and was conducted under supervised/controlled conditions to ensure that the work has not been plagiarised, copied from someone else or previously submitted for assessment by anyone else.

Comment:

Teacher's name: _____ **Teacher's signature:** _____ **Date:** _____

Addendum B: Style guide for word processing documents

Cover page

- Use appropriate content controls to display information.
- Text should be **typed** using appropriate font sizes.
- This should be the only page on which you use a page border.
- Avoid 'arty' borders and backgrounds.
- Do NOT use WordArt/Text Art.

Headings

- The font used should be easy to read, e.g. Cambria, Calibri.
- Different levels of headings should be clearly distinguished.
- Font size should vary between 12 to 18 pt.
- Ensure that headings stand out clearly from other text.
- Make use of heading styles where appropriate to ensure that headings are formatted in a consistent way.

Body text

- Use a font that is easy to read and that is the same as the heading font or matches the heading font, e.g. Calibri, Cambria.
- Font size should not be larger than 12 pt and not smaller than 10 pt.
- Ensure that different paragraphs are clearly distinguished.
- Use appropriate word processing principles and techniques to create white space and enhance readability (e.g. line and paragraph spacing).
- Ensure that all body text is formatted in a consistent way. Using styles would help to ensure consistency.
- Body text should be distinguished from headings.
- Body text should be left aligned.

Page layout

- Use word processing functions to add page numbers.
- Use page/section breaks to start new pages/sections.
- Use lists where appropriate to enhance readability.
- Use sufficient white space.
- Tables, graphs and other graphics should have appropriate captions.

General formatting and editing

- Keep it simple – this is not an art or design competition – it is the quality of the report and content that matter.
- Check the spelling and grammar of your document. Professional documents are error-free.

Addendum C: Learner declaration of authenticity

Learner name		ID Number	
Grade	12	Year	2015
Subject	Computer Applications Technology		
Practical Assessment Task (PAT)		Teacher	
Did you receive any help/information from anyone to complete this project? ☐ No ☐ Yes (provide details below)			
Help/Information received from (person):		Nature of the help/information (provide evidence):	
I hereby declare that the contents of this assessment task are my own original work (except where there is clear acknowledgement and appropriate reference to the work of others) and that I have not plagiarised, copied from someone else or used work previously submitted for assessment by anyone else.			
_____ SIGNATURE OF LEARNER		___ / ___ / 2015 DATE	

Addendum D: K-W-L-S chart

Example of a K-W-L-S chart			
K	W	L	S
What I already know	What I want to know	What I learned	What I still want to know