



basic education

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COMPUTER APPLICATIONS TECHNOLOGY

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS

2016

These guidelines consist of 58 pages.

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ACRONYMS

CAPS	Curriculum and Assessment Policy Statement
FET	Further Education and Training
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 (CAPS) subjects that contain a practical component all include a practical assessment task (PAT) as well. 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 it counts 25% of the final Computer Applications Technology (CAT) mark.

The PAT is implemented across the first three terms of the school year. It is broken down into different phases or a series of smaller activities. 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 easily be assessed in a formal assessment such as a test or an examination. It is therefore important that schools ensure that all learners complete the practical assessment task within the stipulated period to ensure that they 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 broad topic/scenario provided.
 - Formulate a clear focus question that can be investigated/researched.
 - Plan, research and carry out a series of tasks (divided into three phases) to come up with findings and conclusions relevant to the focus question.
 - Prepare a report for a specified audience.
 - Communicate elements of the report 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 in the PAT requirements.
 - Identify key questions to ask.
 - Obtain, critically select and use information from a range of sources, process and analyse data 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, in order to answer the focus question.
 - Support 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:

- Select and apply a range of skills and methods to find solutions.
- Compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions.
- Compile documentation and communicate information, ideas and opinions effectively and meaningfully.
- Effectively file data and information to enable efficient retrieval thereof.
- Collect information to suit the content and purpose of the task/investigation.
- 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.
- Demonstrate planning, research, critical thinking, analysis, synthesis, evaluation and presentation skills
- Develop confidence and initiative in applying the content, application software and technologies they have studied in CAT.
- 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 (word processing, spreadsheet, database and web development software) and ICT skills that will enhance the production of the report and website
- Research and information management skills, including the ability to define a task, set a focus, identify and ask questions, search for and identify suitable sources of information and prior reading or relevant work already undertaken. This includes the evaluation of sources and accepted forms of research reports with an abstract, introduction, discussion with all sources cited, conclusion and references list.
- Project management skills, including time, resource and task management

2.2 Dishonesty

Learners must NOT:

- Get help/guidance from others without acknowledgment thereof (they need to complete **Addendum C** – see Section 2.3.)
- Submit work which is not their own
- Lend their 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 books 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 acknowledging the source
- Submit work typed or word-processed by a third person. Candidates with physical disabilities should obtain prior permission from the relevant assessment authorities.

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 authentication 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 and monitor learners' work
- Conduct/Facilitate an initial planning review session 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 on both an informal basis and at the end of each phase
- Assess the work of the learners at the end of each phase using the criteria outlined in the standardised assessment tools provided and record feedback given
- 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
- Moderate the work of the learners they have marked following any standardising and internal moderation procedures required
- Ensure the authenticity of the PAT as outlined in Section 2.5

2.5 Supervised/Controlled conditions

The teacher should manage the PAT in such a manner as to be able to confirm that the work assessed is to the best of his/her knowledge solely that of the learner concerned, by:

- Monitoring the learner's work on a continuous basis so as to avoid 'instant projects'
- Endorsing each learner's assessment at the end of each phase
- Confirming that the work assessed is to the best of his/her knowledge solely that of the learner concerned

More information in this regard is provided in Section 2.8 of the National Protocol for Assessment Grades R–12.

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 during the first term, completing one phase per term.

Option 2:

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

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 final products for the tasks – a website (home page plus 2 other pages) and a written report of (as a guideline) approximately 1 600–2 000 words (this refers to the content only, excluding the cover page, table of contents, references, graphics).
- The completed learner assessment tool (and other evidence as specified 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 candidate will be given time until three weeks before the commencement of the final end-of-year examination to submit any outstanding work 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 (including the submission dates set by the province/district), 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 applicable assessment body.

Consult the National Protocol for Assessment Grades R–12 (Chapter 3) for further explanation of the procedures to be followed should the learner, with valid reasons, fail to fulfil any outstanding PAT requirements.

Valid reasons for not timeously completing the various phases of the PAT include the following:

- Illness, supported by a valid medical certificate issued by a registered medical practitioner
- Humanitarian reasons, which include 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 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 for you to demonstrate the skills you have acquired in the subject in terms of your:

- Research and information management skills
- Ability to use software applications and technologies to produce quality outputs

You will be provided with a very broad topic/scenario (see Section 3.3 – The topic).

You will need to:

- Analyse the broad topic/scenario and choose a focus area within the topic/scenario
- Provide a short description of the problem and the task
- Produce a single, clear, researchable focus question that will guide you through the task
- Produce a set of high quality questions in order to begin and guide you through the investigation
- Search for, identify and evaluate possible sources of information to answer the questions you have formulated
- Gather quality information from the sources you have identified
- Set up a survey/questionnaire in order to gather data/information related to the task
- Design and create a spreadsheet and database which reflect the management, processing and analysis of data and information
- Create a report regarding your investigation with information that has been sifted, evaluated and summarised to present your findings
- Design a simple website which conveys information about the topic you investigated and your findings

The PAT will be done in THREE phases:

- Phase 1: Define the task and find, access and evaluate information needed to complete the task
- Phase 2: Process data and information
- Phase 3: Present information/solution/findings/conclusions

Your teacher will provide you with dates and deadlines for each phase. These are determined by the provincial and district structures of the education department. In the absence of a valid reason, non-compliance with the dates set could lead to you not being awarded the marks for the particular phase.

Valid reasons for not timeously completing the phases of the PAT include the following:

- Illness, supported by a valid medical certificate issued by a registered medical practitioner
- Humanitarian reasons, which include the death of an immediate family member, supported by a death certificate
- Your appearance 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

NOTE: The three phases are designed to ultimately combine to produce a word processing report and website with your findings and conclusions. Each phase therefore 'feeds' into the next phase. The development of the final report starts in Phase 1 and is added to and refined as you complete the phases. It is therefore critical to view the task as a linked series of tasks, so you need to picture or 'imagine' what your final 'product' or report will look like and manage your time appropriately.

3.2 Mark allocation

NOTE: 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	PERCENTAGE
Phase 1	Find and access data and information	32	18%
Phase 2	Process data and information	44	24%
Phase 3	Present information/solution	84	47%
General	Observation and overall evaluation	20	11%
TOTAL		180	100%

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

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.

The 'General' section (Observation and overall evaluation) will be completed after you have submitted Phase 3. It will, however, not only be based on the resulting products, but also on observations of how you worked and conducted yourself throughout the full duration of the PAT in terms of your:

- Attitude, commitment and work ethic
- Effort
- Independent working skills
- Organisational skills
- Producing professional work

NOTE: You need to complete and hand in any outstanding work for the PAT at least three weeks before you start your final Grade 12 examinations.

3.3 The topic

TOPIC 1

Electricity tariffs set to soar

Consumers urged to reduce power consumption to avoid national blackout

South Africans need to learn to be energy efficient at home

High costs of living off the electricity grid

Reduce electricity usage – going green, but at what cost?

Not enough South Africans conserving electricity

TOPIC 2

Another province declared a disaster area due to the drought

Watershedding instituted across another province

Save water for a sustainable future, says Minister

Price of food may double due to the drought

Just 30 days of water left!

Practical hints for saving water

All the headlines above come from publications within the last year and relate to the on-going water and power problems we are experiencing in South Africa. All South Africans have been affected, both individuals and small or large businesses. We all have to try to reduce our water and power consumption. One can investigate how this affects us in terms of:

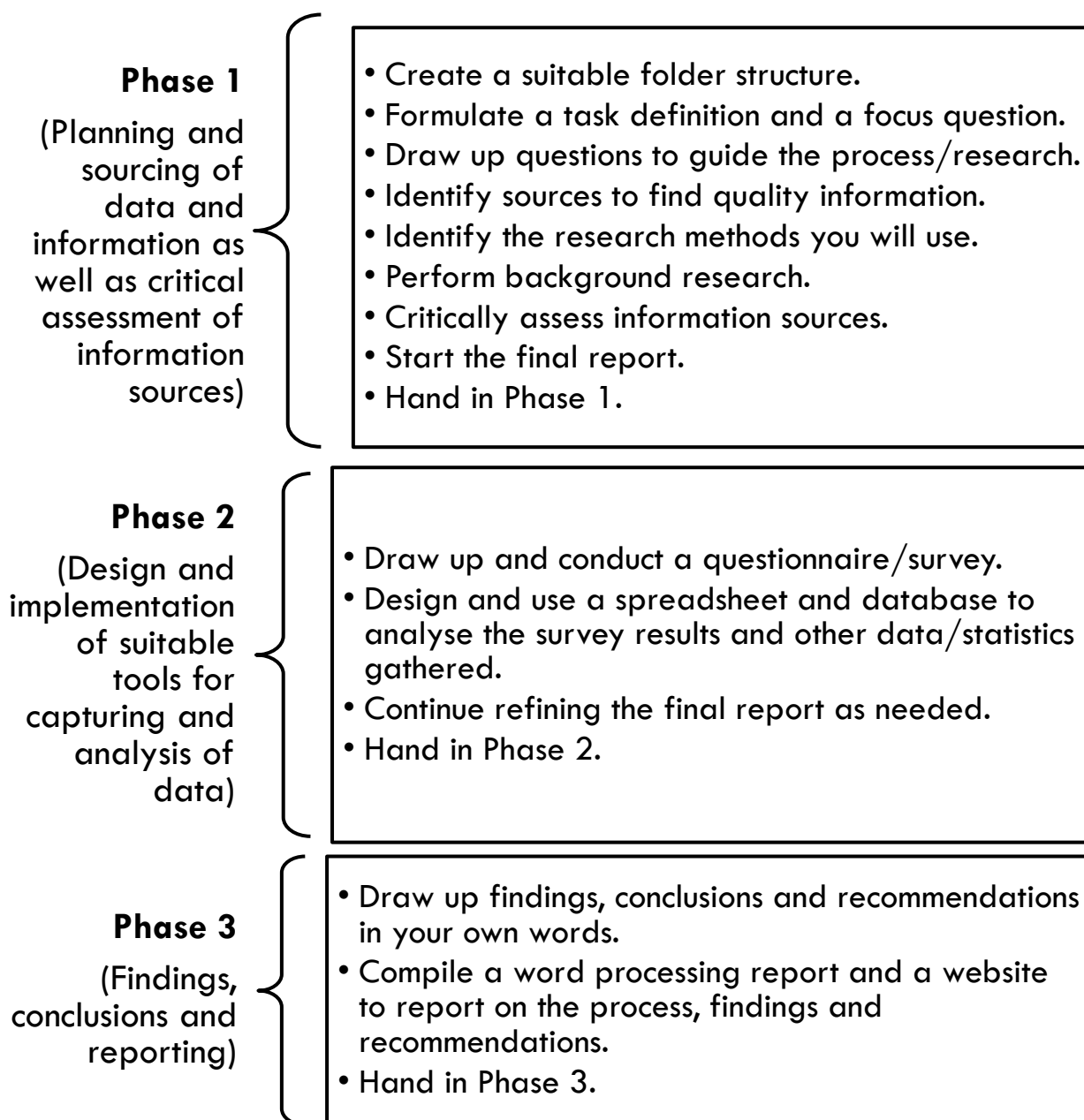
- The impact on the economy (national and/or local business)
- Health services
- Community life
- Daily living and lifestyles, et cetera
- Looking at (partial) solutions for households and businesses and the costs thereof, et cetera

Your task is therefore to choose **ONE** of these topics and:

- Investigate the current situation in **South Africa** at a national, provincial or local level
- Gather and analyse data relevant to the investigation
- Identify possible problems and solutions to the problems
- Present your research and findings in a report that would be suitable for use by institutions (including schools), your local community forums or business leaders (such as a chamber of commerce, et cetera)

NOTE: You may approach this as a very broad topic or (preferably) choose a 'subtopic' within the overall topic you choose, such as (but not limited to) those outlined in the bulleted list 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:
 - Word processing software
 - Spreadsheet software
 - Database software
- An HTML editor (for example Notepad++) and a web browser (for example Internet Explorer, Chrome or Firefox)
- Internet access to:
 - Find data and information
 - Administer electronic questionnaires, for example, use e-mail to send questionnaires to respondents and receive completed questionnaires from respondents
- Access to other sources such as printed media (for example magazines, newspapers, brochures, textbooks) or other electronic material (for example e-books, e-articles)
- Access to facilities to convert hard copies to electronic documents, for example scanner, digital camera, smartphone
- Storage media to store and backup your work electronically, for example flash drive, rewritable CD/DVD.

3.7 Dishonesty

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

- Get help from others without acknowledging this help
- 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 and recognition
- Submit work typed or word processed 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 for the PAT as outlined in national and provincial documentation.

NOTE: 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. This could influence the publication of your final Grade 12 results.

3.9 Preparation

1. Ensure that you understand the information management content, such as:
 - What a task definition is and how to formulate one
 - How to formulate a focus question
 - How to formulate research questions
 - Different types of information sources
 - How to evaluate information sources
 - What a questionnaire is and how to compile one
 - How to use application packages to process data and information
 - How to reference information and not commit plagiarism when compiling your 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 E**.
4. 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 first create a suitable and logical electronic folder structure to store your work, and then to:

- Determine what the problem is and what needs to be done – get 100% clarity
- Decide what the focus of your investigation will be
- Decide what data and information you will need for the project
- Determine where the information (sources) could be found
- Locate, evaluate and summarise the quality and relevance of information found in appropriate sources and add it to the report
- Begin to design the structure and layout of the final word processing report to be completed in Phase 3

Create a suitable folder structure

1. Create an appropriate (electronic) folder structure to store your work as follows:
 - Create a main folder (your teacher may require you to name this in a specific way).
 - Within the main folder, each phase must have its own subfolder (you can/will add more subfolders to organise the work done in the different phases).
 - The names of the folders and files that you will store in them, should be meaningful.

NOTE:

- All the documents that you create and the evidence that you collect must be saved in the appropriate folders.
- The documents and folders must 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.**

Create a report

Now start the word processing report that will be used as the final product to communicate your findings and conclusions. Don't worry if you are unfamiliar with some of the 'headings'; you are simply putting together a 'skeleton' template or structure at this stage. You will add content (and other headings) to this report document throughout the course of the three phases of the PAT

2. Create a word processing report containing the following:
 - **A cover page**
A professional-looking, well-structured, custom-made cover page using appropriate content controls in order to add:
 - Your name and surname
 - The name of your school
 - The subject name and the PAT topic
 - **Headings**
You need to add the following provisional headings: *Introduction, Task Definition, Focus Question, Findings, Conclusion and Appendices*

- **A diagram or a screenshot** showing the folder structure, including any subfolders, used for Phase 1.
- **A new addendum** under the heading *Appendices* you created in your report. Give it a suitable heading such as 'Folder Structure' and paste the diagram or screenshot in this addendum.

HINTS:

- Apply the word processing skills you have learnt to produce a *professional* document. While you will only be formally assessed on these aspects after completing your report in Phase 3, take note now of the style guide in **Addendum B** of this document. This will save you a lot of time and effort at a later stage.
- Save the report in a suitable subfolder in your 'Phase 1' folder.

Define the task

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

3. Your description should be added under the heading **Task Definition** (added in the previous section) and it must:
 - Provide a clear statement of the problem (current situation) and the purpose of the investigation (desired outcome) – why you are doing this investigation
 - Indicate the focus of your investigation, i.e. give an overview of which of the aspects will be investigated and covered
 - Specify 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, et cetera)
 - Identify who the target audience is for the final report that will be drafted

Considering the above, use the following questions to help you write your own task definition:

- **Why** am I doing the investigation?
- **What** will the focus of my investigation be?
- Considering all the PAT requirements, **how** will I go about the investigation?
- **Who** is the target audience

NOTE: Keep in mind that (in the long-term) when choosing your topic you will also need appropriate data and information (including from a survey/questionnaire) which can be:

- Processed using a spreadsheet
- Saved and manipulated using a database – to create queries and reports

Determine the focus question

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

4. Considering the topic/scenario you chose and the requirements of the PAT, you need to set the focus for your investigation. To do this, you must set/ask **ONE question** (the **focus question**) which must clearly reflect what the main focus of your investigation will be. The 'answer(s)' to this question form the 'solution' to the problem that will be reflected in your final report. This question should be added under the heading **Focus Question** (added in the previous section) and needs to be:
 - A single sentence (not two questions or a paragraph)
 - Clearly phrased, concise and researchable and must describe exactly the focus of the investigation within the broader scenario
 - Clearly relevant to/be the focus point of the scenario/topic

Ask questions that will guide your investigation

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

5. First create a new addendum under the heading **Appendices** you created in your report. Give it a suitable heading such as 'Questions and Sources Table' and create the following table (see also **Addendum D**):

No.	QUESTION	QUESTION LEVEL (1, 2, 3, 4)	CATEGORY	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION	QUALITY OF INFORMATION FOUND	SUMMARY OF INFORMATION FOUND
1							
...	
10							

Figure 1: Example of Questions and Sources table

TIP: It might be useful to place this appendix in landscape format.

NOTE: You will fill in the required information in the various columns in this table as you progress through Phase 1.

6. Read the focus question that you chose and need to answer. The focus question should guide you in identifying additional quality questions that will help you to find the data and information that you need. **In other words, what else do I need to find out (that I do not know) BEFORE I start this task?** The K-W-L-S chart in **Addendum E** may help in this regard.
7. Compile and evaluate the list of questions (at least TEN) that show at least THREE of the FOUR different levels of thinking as follows:

LEVEL	TYPE OF LEVEL OR QUALITY OF QUESTION
①	Provide facts (who, when, where, what, how many, et cetera)
②	Give direction to the investigation (why, how, et cetera)
③	Support predictions or help with any changes, alternatives or variations (what if, if, et cetera)
④	Support your judgement or help to evaluate, critique, review or find meaning (would it be better if, what recommendation, what would be best, et cetera)

Figure 2: Levels of Questions

NOTE: Fill in the questions (at least 10) and the level of each question in the source table, making sure that your (minimum of) TEN (10) questions collectively represent at least **THREE** of these FOUR different types/levels.

8. Review the questions and categorise/group the questions under at least **THREE** categories which you can use to organise/group your questions and information. Add the category you identify for each question for example conducting a survey. An example of a possible extract from this table (with the relevant details added) is shown below.

No.	QUESTION	QUESTION LEVEL (1,2,3,4)	CATEGORY	TYPE OF SOURCE
1	What is the most efficient way to conduct a survey?	2	Conducting a survey	...
...
10	...	...	...	...

Figure 3: Questions and Sources table with a question and relevant details added

9. Rework or change the questions which you will then use to guide your investigation and finalise your list of:
- **At least TEN** questions representing
 - **At least THREE levels** of questions types and
 - **At least THREE** categories of questions.

Identifying sources

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

10. For EACH of the (minimum of) TEN questions you created, (see point 7 on the previous page) locate **sources** to enable you to answer these questions by doing the following:
- Identify a source to find the information for each question.
 - You must use the **Internet** (at least TWO different websites) **plus** at least ONE other source, for example media (printed/electronic) such as newspapers, magazines, brochures, textbook, et cetera, or an expert (e-mail/interview), et cetera.
 - Provide bibliographical information of the sources (**at least TWO websites and ONE other source**) as follows:
 - For each website, record the following information:

WEBSITE SOURCE	
Author(s)/Organisation/Publisher	Spark, James
Name of website and web page	Conserving Power – Power Struggles
Date created/updated	12 January 2016
Date accessed	14 February 2016
URL	www.example.com

Figure 4: Example of bibliographical information needed for a website

- For each printed source, such as books and magazines, record the following information:

PRINTED SOURCE	
Author(s)	Cabala, Xolani
Title of book/magazine	Solar power for all
Date published/issued	December 2015
Publisher	Power Press
City	Johannesburg

Figure 5: Example of bibliographical information needed for printed media

- Now add all this information in the appropriate columns in the Questions and Source table you created. Modify the table as needed. A **partial** example of how you could go about it is shown below:

No.	QUESTION	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		...
1	...	Internet/ Website	Authors(s)	Spark, James	...
			Name of Website/Web Page	Power On! – Let's Save	...
			Date created/updated	12 January 2016	...
			Date accessed	14 February 2016	...
			URL	www.example.com	...
2	...	Magazine	Author(s)	Cabala, Xolani	...
			Title	Solar power for all	...
			Date published	December 2015	...
			Publisher	Power Press	...
			City	Johannesburg	...
3

Figure 6: Example of Questions and Sources table with bibliographical information added

TIP: You can already enter these details as *sources* in your report document using the referencing functions of the word processing program using a style such as APA or Harvard.

Once you have identified your sources (or during that process), you need to assess the potential quality of these sources of information in order to gather quality information.

11. For each of the THREE minimum sources you identified (at least TWO different websites plus at least ONE other source) you need to briefly evaluate the quality of the information using the following criteria:

CRITERIA	MOTIVATION/EXPLANATION
Authority	The 'validity' or 'credentials' of the publisher or author(s)
Currency	The date on which the material was published or updated
Accuracy	The correspondence of the information with other sources
Objectivity	Any presence of prejudice, bias, skewing of information, et cetera
Coverage	How extensively the material covers the topic

Figure 7: Criteria for checking the quality of information on websites

12. Now add all this information to the Questions and Sources table you created. Modify the table as needed. A partial example of how you could go about it, is shown below and a more detailed version is provided in **Addendum D**.

NO.		TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		QUALITY OF INFORMATION FOUND	
1	...	Internet/ Website	Authors(s)	Spark, James	Authority	The author is a leading DIY specialist in SA and is published in several leading magazines as well.
			Name of Website/ Web Page	Power On! – Let's Save	Currency	The article was originally published in 2014 but was updated to reflect the latest developments in January of this year.
			Date created/updated	12 January 2016	Accuracy	Information provided corresponds with other sources and is also accurate in terms of providing recent prices.
			Date accessed	14 February 2016	Objectivity	There is no bias on the web page and the information is presented in a factual, objective fashion
			URL	www.example.com	Coverage	The article provides extensive coverage on a wide variety of power saving measures.
2	...	Magazine	Authors(s)	Cabala, Xolani	Authority	...
			Title	Solar power for all	Currency	...
			Date published	December 2015	Accuracy	...
			Publisher	Power Press	Objectivity	...
			City	Johannesburg	Coverage	...
3	...	...	...	...	...	...

Figure 8: Example of Questions and Sources table with an example of criteria for quality information added

TIP: You can already enter these details as sources in your report document using the referencing functions of the word processing program.

Engage with and use information and data

Now that you have identified and evaluated your potential sources of information, you can start to extract the relevant information and gain an understanding by **summarising** the information in your own words:

13. Now gather all other information and data from the sources you identified, as follows:

- Save a copy (screenshot/copied content) of each website that you intend to use in an appropriate folder.

TIP: You can use a free online service such as PrintFriendly.com to capture and save the contents of a web page in a single (PDF) file. You can then open or import the PDF file to MS Word, depending on the version you have.

- Process/summarise the information to extract appropriate information that is relevant to your information requirements (you will need it to compile the final report in Phase 3).
- Record/Save the information in ONE of the following two ways:
 - i. Copy the information and paste it in the relevant cells in the last column of the Questions and Sources table you created (the Summary of information found column). An extract of this type of table is shown below:

	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		QUALITY OF INFORMATION FOUND		SUMMARY OF INFORMATION FOUND
...	Internet/ Website	Authors(s)	Spark, James	Authority	The author is a leading DIY specialist in SA and is published in several leading magazines as well.	<ul style="list-style-type: none"> • Look at 'hungry appliances like geysers (reduce temperature). • Try to generally use less hot water – shower instead of bathing, take shorter showers, only fill the kettle with as much water as you will use. • Rather wash a full load of dishes, rather than one dish at a time. • Switch off equipment not in use at the wall plug, rather than leaving them on standby. • Reduce pool pump operating hours • Use localised equipment rather than central air-conditioning or heating systems • Only heat or cool occupied rooms. ' • No cost' options – for example wearing warmer clothing and using blankets in winter
		Name of Website/ Web Page	Power On! – Let's Save	Currency	The article was originally published in 2014 but was updated to reflect the latest developments in January of this year.	
		Date created/updated	12 January 2016	Accuracy	Information provided corresponds with other sources and is also accurate in terms of providing recent prices.	
		Date accessed	14 February 2016	Objectivity	There is no bias on the web page and the information is presented in a factual, objective fashion	
		URL	www.example.com	Coverage	The article provides extensive coverage on a wide variety of power saving measures.	
...	
...	

Figure 9: Example of Questions and Sources table showing summarised information

- ii. Store the summarised information for each question in word processing files in an appropriate folder and add hyperlinks to the files in the last column of the Questions and Sources table you created (the Summary of Information Found column). An extract of this type of table is shown below:

	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		QUALITY OF INFORMATION FOUND		SUMMARY OF INFORMATION FOUND
...	Internet/ Website	Authors(s)	Spark, James	Authority	The author is a leading DIY specialist in SA and is published in several leading magazines as well.	Hyperlink to summary 1
		Name of Website/ Web Page	Power On! – Let's Save	Currency	The article was originally published in 2014 but was updated to reflect the latest developments in January of this year.	
		Date created/updated	12 January 2016	Accuracy	Information provided corresponds with other sources and is also accurate in terms of providing recent prices.	
		Date accessed	14 February 2016	Objectivity	There is no bias on the web page and the information is presented in a factual, objective fashion	
		URL	www.example.com	Coverage	The article provides extensive coverage on a wide variety of power saving measures.	
...
...

Figure 10: Example of Questions and Sources table showing links to summarised information

NOTE: You may find that you still need additional sources, in which case you need to add them (as outlined in steps 10–12).

Bear in mind that the information you finally add in the report needs to be suitably referenced, in other words, you may NOT commit plagiarism.

Hand-in for Phase 1

Once you have completed Phase 1 of the project:

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

A single report document, typed using a word processing application, and that includes the following:

- ☐ A cover page with appropriate content controls to display your name and surname, the name of your school, the subject name and the PAT topic
- ☐ The following provisional headings: *Introduction, Task Definition, Focus Question, Findings, Conclusion and Appendices*
- ☐ Your task definition and focus question under the appropriate headings
- ☐ An addendum with a diagram/screenshot of the folder structure for Phase 1
- ☐ An addendum with the completed Questions and Sources table, with all the columns (see **Addendum D** in this document for an example) filled in, with:
 - ☐ A minimum of 10 questions, covering three categories of question types
 - ☐ Sources for each question (from at least TWO different websites plus at least ONE other source)
 - ☐ Appropriate bibliographical data for each question
 - ☐ An assessment of the quality of the sources for each of the questions
 - ☐ A summary of the content for each of the questions, either added in the table or in separate files with a hyperlink to each file

NOTES: Apply the word processing skills you have learnt to produce the report. Take note of the style guide in **Addendum B** in this document.

Your teacher will give you the date on which to submit your Phase 1 work for assessment. If you are unable to meet the deadline set then you will need to provide a valid reason as outlined in Section 3.1.

Copy the report from this phase (Phase 1) to the relevant Phase 2 folder.

Ensure that all electronic and/or hard copies of all documents/files are available and organised into a logical folder structure, clearly named and easy to find/navigate.

3.11 Instructions for Phase 2

The purpose of this phase of the PAT is to:

- Design, create and administer a suitable questionnaire/survey to gain relevant insights from respondents in terms of the task
- Create and use a suitably designed database and spreadsheet to analyse the data from the questionnaire/survey

Creating and conducting 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 an electronic questionnaire. It needs to be professionally and appropriately designed to ensure the easy and appropriate answering of questions as well as accurate importing/capturing and processing of data and information.

1. 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, for example opinions, preferences).

Brainstorm some topics whereby you can get feedback from people through a questionnaire regarding your specific focus question (from Phase 1), such as the following (if you choose Topic 1):

- What are the general attitudes/concerns of the public regarding loadshedding?
 - What is the public's awareness level in terms of reducing power/energy-reducing measures that can be taken?
 - What measures are people taking to conserve the amount of energy/power they consume?
 - What effects has the 'power crisis' had on individuals/families/small and big businesses?
2. Think of the options available to you in terms of how you are going to administer the questionnaire for at least 25 respondents, trying to reach a cross-section of people in terms of age, gender, et cetera. This can be done by:
 - Creating a questionnaire in a word processor and either e-mailing it (or placing a link online) or get different people to answer them in class (saved under different file names)
 - Printing and distributing copies of the questionnaire
 - Using an online tool such as an editable PDF document, Google Forms or SurveyMonkey et cetera.
 3. Formulate at least 5 questions, excluding biographical data (for example name, gender, age, address), as follows:
 - Ensure that all the questions are relevant and provide answers to questions that cannot be found in other sources.
 - Try to create questions where people can choose an answer from a list of possible answers (i.e. closed questions) as the responses to this type of question are often easier to record and process.

4. Design the layout of the questionnaire while bearing the following in mind:
- It must suit the way in which it will be administered, for example, use content controls/form fields to enable respondents to complete the questionnaire electronically and for you to easily save the data.
 - The questionnaire should be easy to interpret, with appropriate headings and clear instructions for users.
 - Related questions should be grouped together under relevant headings.
 - It must consist of a maximum of one page.
 - You need to use professional formatting and layout (for example appropriate word processing) techniques.
 - It is a good idea to get other learners to 'test' your survey to see whether it is easy to understand and answer.
5. Once the questionnaire has been successfully (completely) answered by at least 25 respondents, you need to store the completed questionnaires in an appropriate folder under Phase 2.

Hardcopy questionnaires also need to be stored safely, preferably by scanning them and saving them in electronic format.

Process and analyse data in a spreadsheet

You now need to process and analyse all data (questionnaire data, as well as other data such as costs of energy saving devices, et cetera) that may require the use of a spreadsheet and worksheets within the spreadsheet.

6. Create a spreadsheet with a meaningful file name and save it in an appropriate subfolder in the Phase 2 folder.
7. Capture/Import/Copy the data from your questionnaire to this spreadsheet as well as any possible data you sourced in Phase 1 that you need to process, for example electricity usage per province.

Ensure that:

- Only relevant, appropriate data is added/captured
 - Relevant, appropriate data other than the questionnaire/survey data is added
 - There are no processing errors/error indicators (formatting errors or inconsistencies) in the data
8. Design and format the spreadsheet with a good, user-friendly layout so that it is easy to read and interpret the data using appropriate formatting techniques:
- Make sure the row and column headings/labels stand out, for example, that they are formatted differently to other data
 - Use consistent colour, borders, wrapping and styles to format the spreadsheet
 - Ensure that the formatting makes it easy for anybody to interpret the data/results

9. Use filtering or sorting as needed on the data **as well as** formulas and/or functions to process data and answer any data-related questions posed in Phase 1 (at least ONE from EACH level given below):

LEVEL	EXAMPLES OF FORMULAS/FUNCTIONS
①	Simple functions that only use/include a single cell range, for example Sum, Max, Min, Count, Average, Mode, Median, Len, Value or a formula using any of the arithmetic operators (+, −, *, /)
②	Functions that include a cell range and one other parameter/condition, for example Round, Large, Small, Left, Right, Concatenate, Countif, Sumif <u>OR</u> Calculations using a combination of arithmetic operators and brackets, or calculations using a combination of any two simple functions from level ①
③	Functions that include a cell range plus two parameters/conditions, for example Power, Mid, Find, Countifs, Roundup, Randbetween or a simple IF-function or any of the Date and Time functions <u>OR</u> Any combination of more than two functions of arithmetic operators, brackets and other functions
④	A Lookup or nested IF-function or functions not in the CAT CAPS curriculum

Figure 11: Levels of complexity of spreadsheet functions

NOTE: No marks will be awarded for functions that do not produce meaningful or relevant information. In other words, you should be able to use the information obtained from these formulas and functions as findings or partial findings and conclusions in your final report.

If you are unsure of the level of functions, consult your teacher.

Indicate to your teacher if you have used functions not in the curriculum.

The types and complexities of spreadsheet functions and formulas needed are specified in more detail in the Assessment Instruments.

10. Summarise the results that you will use in the report on a separate worksheet within the same spreadsheet.
11. 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, as follows:
- Apply what you have learnt in CAT and Mathematics/Mathematical Literacy when creating the graphs.
 - Appropriate types of graphs and options must be used.
 - 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 or partial findings and conclusions** in your final report.

12. Save the spreadsheet in your Phase 2 folder. Make sure that you use an appropriate file name.

Process and analyse data in a database

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/solutions.

13. Create a database with a meaningful file name and save it in an appropriate subfolder in the Phase 2 folder.
14. You need to create a table to store data relevant to the tasks (for example from the survey and other sources you identified in Phase 1) as follows:
 - At least one table must be created.
 - All fields must have appropriate, meaningful names.
 - All fields must have appropriate data types and formatting.
 - Make sure that all fields contain single data units (for example separate fields for Name and Surname).
15. Use of appropriate components/properties to ensure/promote accurate data capturing where appropriate, as follows:
 - All text fields must be set to appropriate sizes.
 - There must be at least one appropriate/meaningful validation rule and validation text.
 - There must be at least one appropriate/meaningful list/combo box.
 - There must be at least one appropriate/meaningful input mask
16. Capture/Import/Copy at least 25 relevant records into the table. Ensure that:
 - Only relevant, appropriate data is added/captured
 - There are no formatting errors or inconsistencies in the data
17. Create queries (at least TWO) that will provide information that is meaningful or relevant to the task to process data and answer any data-related questions posed in Phase 1. Your queries (overall) need to show four different levels of complexity, as given below:

LEVEL	COMPLEXITY OF QUERY
①	Only fields with 1 simple criterion (for example 'X', >X, =X, not 'X', Is Null)
②	One field with combined criteria using conditions and relational operators (for example 'X' or 'Y', >1 and <10 or ranges such as 'Between 1 and 10') <u>OR</u> One field with criterion including wild cards ('*' or '?')
③	Simple calculated field using arithmetic operators (+, −, *, /) <u>OR</u> Date and time functions/calculations
④	Complex calculated field (for example Sum, Min, Max, Avg, Count) <u>OR</u> queries that use Grouping <u>OR</u> queries that use logical (IF) or text functions <u>OR</u> advanced functions that are not in the CAT CAPS curriculum

Figure 12: Levels of complexity of database queries

NOTE: No marks will be awarded for functions that do not produce meaningful or relevant information. In other words, you should be able to use the information obtained from these formulas and functions as findings or partial findings and conclusions in your final report.

If you are unsure of the complexity levels of your queries, consult with your teacher.

Indicate to your teacher if you have used features/functions not in the curriculum.

18. Create a database report (at least ONE) which will provide information that is meaningful or relevant to the task to process data and answer any data-related questions posed in Phase 1.

Your report must:

- Be sorted according to at least one field
- Contain at least one meaningful calculation using a function in the report footer
- be grouped appropriately on at least one field
- contain at least one meaningful calculation in the group section

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

Continue working on the report

19. Copy the report from Phase 1 to the relevant Phase 2 folder if you have not done so already and continue working on this report by adding your graphs under the *Findings* heading. You will need to expand this section (and other sections) in Phase 3.

Hand-in for Phase 2

Once you have completed Phase 2 of the project:

20. Submit a copy of your entire PAT folder to your teacher. The following should be in your Phase 2 folder:

- ☐ The original questionnaire you designed
- ☐ A minimum of 25 completely answered questionnaires, stored in an appropriate folder under Phase 2. Hardcopy questionnaires also need to be safely stored. Consider scanning them and saving them in electronic format for safekeeping.
- ☐ The completed spreadsheet with the analysis of the data, including graphs
- ☐ The completed database with relevant queries and report(s)
- ☐ Your updated report with your graphs added under the *Findings* section

Copy the report from this phase (Phase 2) to the relevant Phase 3 folder.

NOTE: Your teacher will give you the date on which to submit your Phase 2 work for assessment. If you are unable to meet the deadline set, you will need to provide a valid reason, as outlined in Section 3.1.

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 own* understanding and insight and to answer the focus question.
- Complete the report by using good word processing principles and techniques.
- Create a website using HTML that takes into consideration appropriate layout, readability and other usability issues.

Report

In order to communicate the knowledge and insight that you have gained, as well as the recommendations/solutions to the problem, you need to continue working on the report that you created in Phases 1 and 2 and add your findings and solutions. 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).

Your report needs to be 6–10 pages long with the following sections:

- A cover page
- An introduction
- The report body
- The findings and conclusions
- Any appendices that are needed

Suitable headings must appear in these sections.

1. Copy the report from Phase 2 to the relevant Phase 3 folder (if not done already).
2. Note that over and above any specific instructions below, you need to apply the word processing skills you have learnt to produce a professional document. Take note of the style guide in **Addendum B**. This includes:
 - **Basic formatting:**
 - Use font types that are easy to read and be consistent in their use.
 - Do not use more than two different font types.
 - Ensure that appropriate word spacing and basic punctuation are used.
 - Check that no spelling or grammar mistakes are highlighted.
 - **Headings**
 - Use styles consistently to make headings stand out clearly from other (body) text (typically 12–18 pt).
 - Use different heading styles/font sizes so that different levels of headings are clearly distinguishable.
 - **Paragraph formatting**
 - Use appropriate and consistent line and paragraph spacing so there are no 'empty' paragraphs and ensure that all text in the body is left-aligned.
 - **Page layout**
 - Use automatic page numbering with headers/footers/page numbering set appropriately per section.
 - Use page breaks to start new pages and section breaks to start new sections, for example *Appendices*.

- **Referencing**

- Using the information in Phase 1, add an automatically generated reference list/bibliography using the features of your word processor. Ensure sources used are referenced clearly and appropriately.
- All the information you need should be found in the (summary) documents you created in Phases 1 and 2.
- Any graphics from other sources must be acknowledged clearly and appropriately.
- Automatic, appropriate captions must be inserted correctly for all tables/figures.
- Make sure that you do not plagiarise and use citations and/or footnotes appropriately using a referencing style such as Harvard or APA.

NOTE: Your report must be written in **your own words**, except where information is correctly cited/acknowledged). You will be heavily penalised if you copy and paste large sections of text directly from the Internet or any other source. Plagiarism is completely unacceptable. Be original and creative!

3. Complete the cover page.

- You should have added a cover page in Phase 1. Ensure that you have a professional-looking, well-structured cover page using appropriate content controls, with:
 - Your name and surname
 - The name of your school
 - The topic you chose
- Now add a meaningful abstract/extract in a suitable content control.

An abstract is a brief summary (3–4 lines as a guideline) of the contents of the report. After reading the abstract, readers should be aware of the content of the report so that they can, at a glance, see whether or not they wish to read the full report.

Note that it is not an introduction to, but rather an overview of the content and purpose of the report.

HINT: You are advised to re-check your abstract after you have completed the report.

4. Add an automatic table of contents and table of figures.

- Add a provisional, automatically generated table of contents and table of figures once you have decided on the styles you are going to use for your headings
- Remember to update these tables once you have completed the report.

5. Write your introduction.

- Give a clear overview and focus of the original problem.
- Clearly state the focus and purpose of the investigation, pointing out which aspects you investigated.
- Make sure you do not add any additional, unnecessary information.

HINT: Consider your task definition and focus question when compiling your introduction but do not simply use them verbatim.

6. Body of the report

- You already have some headings added to your report but you may need to add additional headings and subheadings to the report this will allow you to group the relevant information together in a logical fashion.
- Add information from Phases 1 and 2 (summaries, questionnaire, spreadsheet and database) and all information/data/graphics (tables, graphs, charts, pictures) as needed. Make sure the data and information added is relevant to the investigation.
- Adding hyperlinks:
 - Hyperlinks/Bookmarks must be used to navigate to other websites and external documents, for example the spreadsheet and database from Phase 2.
 - Hyperlinks to these external data/information sources must be easy to locate and recognise/'understand'.

7. Formulating your findings.

- You need to formulate as least THREE appropriate claims, arguments or findings that are appropriate and relevant to the investigation (as guided by your focus question).
- All these claims, arguments and findings must be:
 - Supported by relevant, appropriate data/information and a meaningful explanation of how or why the evidence supports these findings
 - Drawn from information presented in the report and address the original problem statement/focus in light of the evidence presented

8. Formulating your conclusion(s)

Your conclusion(s) must:

- Be meaningful and logical
- Address the original problem statement/focus in light of the evidence presented

The conclusion(s) should NOT contain new information that is not researched.

9. Once you have completed the report, do a final check in terms of the formatting and references covered in point 2 and remember to update the tables of contents and figures.

Website

In order to share the knowledge and insight you have gained with a broader audience, you need to create a website. This will serve as a 'summarised, visual' version of your report. Do not simply repeat the entire report in HTML format.

10. Create a website with a home page linked to at least **TWO** other webpages. Save it in the relevant subfolder in your Phase 3 folder, using meaningful file names.

11. 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, et cetera.
 - Hyperlinks to other good quality information where appropriate. These could also be the websites that you identified in Phase 1 as potential sources of information.
12. 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.
13. Different elements/parts of the pages must be clearly distinguishable.
14. Graphics/Images should be relevant to the topic or purpose of the site, enhance understanding, display correctly and be of a high quality. They must be appropriately sized and cropped. It should also take into account visually impaired users.
15. Use good Standard English and ensure there are no spelling or grammar mistakes.
16. Acknowledge information and graphics used from other sources appropriately.

Hand-in for Phase 3

Once you have completed this phase of the project, submit a copy of your entire PAT folder to your teacher: The following should be in your Phase 3 folder:

- ☐ The word processing report you completed in this phase.
- ☐ The website you created in this phase (home page linked to at least two other web pages) together with any resources needed for the website (graphics, et cetera)

NOTE: You also need to complete and hand in the final declaration (**Addendum C**).

Your teacher will give you the date on which to submit your Phase 3 work for assessment. If you are unable to meet the deadline set, you will need to provide a valid reason as outlined in Section 3.1.

Addendum A: Assessment Tools

ASSESSMENT TOOL – PHASE 1

LEARNER'S NAME: _____

DATE HANDED IN: _____

NOTE: This is a criterion-referenced tool and not a norm-referenced tool.

The teacher **MUST** highlight or tick applicable criteria in the second column. The number of ticks in this second column does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, for example in item 1, if answers to all 4 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, in the learner's own words , 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.							
	<input type="checkbox"/> What is the current situation and the purpose of the investigation (desired outcome?) <input type="checkbox"/> What will the focus of my investigation be? <input type="checkbox"/> How will I go about the investigation, considering the parameters of the PAT? <input type="checkbox"/> Who is the target audience?	4	<ul style="list-style-type: none"> All 4 questions in the criteria are clearly answered and in learner's own words. 	<ul style="list-style-type: none"> Only 3 of the 4 questions in the criteria are clearly answered and in learner's own words. 	<ul style="list-style-type: none"> Only 2 of the 4 questions in the criteria are clearly answered and in learner's own words. 	<ul style="list-style-type: none"> Only 1 of the 4 questions in the criteria is clearly answered and in learner's own words. 	<ul style="list-style-type: none"> Not done OR None of the criteria are clearly answered. 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 will be within the broader scenario and that is relevant to what was given in the task description. (Will clearly direct the investigation and provide an indication of the scope)							
	<input type="checkbox"/> Clearly phrased, concise question <input type="checkbox"/> Question will be researchable <input type="checkbox"/> Single sentence (not two questions/paragraph, et cetera) <input type="checkbox"/> Clearly relevant to/focus point of the scenario/topic	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.	No focus question OR no discernible focus OR not researchable	
3	QUESTIONS – QUALITY (Questions to guide the research – This is NOT for the QUESTIONNAIRE) A minimum of 10 questions , representing at least three of the four different levels (for example '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. Questions are classified/categorised into a minimum of three groups.							
	<input type="checkbox"/> All questions provided are relevant to the focus question and will help to answer the focus question <input type="checkbox"/> Questions are representative of at least THREE different cognitive question levels <input type="checkbox"/> All questions are grouped/classified under categories <input type="checkbox"/> At least THREE different categories/groupings of questions	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.	None of the aspects have been addressed.	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
4	QUESTIONS – TECHNICAL ASPECTS							
	Technical aspects such as number of questions and sources indicated. Learner identified a variety of sources (at least three sources).							
	<div><input type="checkbox"/> Possible, appropriate source type (for example Internet/printed media/people) indicated for each question</div> <div><input type="checkbox"/> At least 10 questions included</div> <div>Number of sources, excluding questionnaire:</div> <div><input type="checkbox"/> 2 websites identified as potential sources <i>plus</i></div> <div><input type="checkbox"/> 1 from another type/media (for example magazine, newspaper, brochure, textbook – printed or electronic format), e-mail/ interview with an expert</div>	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.	None of the aspects have been addressed.	
5	SOURCES – BIBLIOGRAPHICAL INFORMATION-							
	Appropriate sources identified to answer questions and source details clearly indicated for ALL sources as required.							
	<div>Aspects/Criteria for websites:</div> <div><input type="checkbox"/> Authors(s)</div> <div><input type="checkbox"/> Name of Website/Web page</div> <div><input type="checkbox"/> Date created/updated</div> <div><input type="checkbox"/> Date accessed</div> <div><input type="checkbox"/> URL</div> <div>Aspects/criteria for other types of sources:</div> <div><input type="checkbox"/> Authors(s)</div> <div><input type="checkbox"/> Title</div> <div><input type="checkbox"/> Date published</div> <div><input type="checkbox"/> Publisher</div> <div><input type="checkbox"/> City</div>	4	All applicable aspects addressed for all 3 (minimum) resources	All applicable aspects addressed for at least 2 sources	Applicable aspects addressed for at least 1 sources	Some applicable aspects addressed for at least 1 source	No source details provided OR No sources provided	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
6	INFORMATION – EVALUATION							
	Table 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.							
	Aspects/Criteria: <input type="checkbox"/> Authority <input type="checkbox"/> Currency <input type="checkbox"/> Accuracy <input type="checkbox"/> Objectivity <input type="checkbox"/> 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 OR Not done for all sources	
7	INFORMATION – SUMMARY							
	Information from each source used is summarised in 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.							
	<input type="checkbox"/> Summaries completed for all sources <input type="checkbox"/> Information is relevant to the topic <input type="checkbox"/> Information will answer the focus question <input type="checkbox"/> 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	
8	PHASE 1 DOCUMENT							
	Single word processing document that contains all information required for Phase 1							
	<input type="checkbox"/> Single report document present <input type="checkbox"/> Minimum headings present: Task Definition, Focus Question, Findings, Conclusions and Appendices <input type="checkbox"/> An addendum with a diagram/screenshot of the folder structure for Phase 1 is included <input type="checkbox"/> An addendum with completed table of questions and sources table with all the columns is present	4	Clearly contains all 4 aspects	Clearly contains 3 aspects	Clearly contains 2 of the 4 aspects	Clearly contains only 1 of the 4 aspects	No document	

TOTAL MARK FOR PHASE 1:	32	MARK OBTAINED	
Comment/Feedback: <hr/> <hr/>			
Teacher name: _____ Teacher signature: _____ Date: _____			

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

The teacher **MUST** highlight or tick applicable criteria in the second column. The number of ticks in this second column does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, for example in item 1, if answers to all 4 questions are evident, then a mark of 4 is awarded.

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
1	QUESTIONNAIRE – QUALITY Well thought-out questionnaire that will provide answers to questions not likely to be found in other sources or that will lead to verifying, clarifying or supplementing other information. Some questions will also enable the processing of data using a spreadsheet and a database.							
	<input type="checkbox"/> All questions are relevant <input type="checkbox"/> Questions mostly provide answers to questions that cannot be found in other sources or that supplement/verify/clarify <input type="checkbox"/> Clear instructions guide users in the answering of questions <input type="checkbox"/> At least 25 completed questionnaires	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	
2	QUESTIONNAIRE – TECHNICAL Electronically created questionnaire, professionally and appropriately designed for the way in which it will be administered (online, e-mail or printed) (for example, 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 format) that will ensure easy and appropriate answering of questions as well as accurate importing/capturing and processing of data and information.							
	<input type="checkbox"/> Form is created electronically, appropriate to the way it will be administered <input type="checkbox"/> Appropriate headings with appropriate questions. (Appropriate questions grouped together under relevant headings) <input type="checkbox"/> Maximum 1 page with at least 5 questions, excluding biographical data (for example name, gender, age, address) <input type="checkbox"/> Professional formatting and layout (for example 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	

	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, et cetera) with good layout and easy to read and interpret (row and column headings stand out). The format should contribute to readability, not hinder it.							
	<input type="checkbox"/> Separate worksheet for results <input type="checkbox"/> Well-designed layout <input type="checkbox"/> Well formatted with appropriate, consistent formatting <input type="checkbox"/> Easy to read and interpret	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	No spreadsheet OR none of the 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.							
	<input type="checkbox"/> Only relevant, appropriate data collected and captured <input type="checkbox"/> Relevant/Appropriate processing and analysis of data <input type="checkbox"/> Analysis includes relevant, appropriate data other than the questionnaire/survey data <input type="checkbox"/> 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 relevant or totally incorrect	
5	SPREADSHEET – GRAPHS At least TWO graphs that are relevant, meaningful and serve a purpose, are of the correct type and formatted to be easy to interpret (headings, labels, legends, et cetera). The graphs will help to answer questions and contribute to the solution/explain aspects of the problem/solution.							
	<input type="checkbox"/> At least one relevant, meaningful graph present, that will contribute to the solution <input type="checkbox"/> A second relevant meaningful graph that will contribute to the solution <input type="checkbox"/> Appropriate types of graph(s) and options used <input type="checkbox"/> Graph(s) easy to read and 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 are 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: <ul style="list-style-type: none"> ① Simple functions that only use/include a single cell range, for example Sum, Max, Min, Count, Average, Mode, Median, Len, Value or a formula using any of the arithmetic operators (+, −, *, /) ② Functions that include a cell range and one other parameter/condition, for example Round, Large, Small, Left, Right, Concatenate, Countif, Sumif <u>OR</u> Calculations using a combination of arithmetic operators and brackets, or calculations using a combination of any two simple functions from level ① ③ Functions that include a cell range plus two parameters/conditions, for example Power, Mid, Find, Countifs, Roundup, Randbetween or a simple IF-function or any of the Date and Time functions <u>OR</u> Any combination of more than two functions of arithmetic operators, brackets and other functions ④ A Lookup or nested IF-function or functions not in the CAT CAPS curriculum 							
	<input type="checkbox"/> At least ONE meaningful calculation from level ①. <input type="checkbox"/> At least ONE meaningful calculation from level ②. <input type="checkbox"/> At least ONE meaningful calculation from level ③. <input type="checkbox"/> At least ONE meaningful calculation from level ④. NOTE: Any incorrect/meaningless aspect/function does NOT qualify for consideration. List any function (where applicable) used that is not part of the curriculum	4	Meaningful calculations using functions from all 4 levels (①, ②, ③ and ④)	Meaningful calculations using functions from any 3 different levels (①, ②, ③ or ④)	Meaningful calculations using functions from any 2 different levels (①, ②, ③ or ④)	Meaningful calculations using functions from only 1 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 – BASIC DESIGN Well designed and formatted with appropriate data types, field names and field properties and each field contains one single piece of data (for example title, name, surname in three separate fields)							
	<input type="checkbox"/> At least one table created <input type="checkbox"/> All fields have appropriate, meaningful names <input type="checkbox"/> All fields have appropriate data types/formatting <input type="checkbox"/> All fields contain single data units (for example 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 present	No database OR none of the 4 aspects present	
8	DATABASE – VALIDATION Field properties/components to ensure accurate input/capturing of data							
	<input type="checkbox"/> All text fields are set to an appropriate size <input type="checkbox"/> There is at least one appropriate validation rule and validation text <input type="checkbox"/> There is at least one appropriate list/combo box <input type="checkbox"/> There is at least one appropriate input mask	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 present	No table OR none of the 4 aspects present	
9	DATABASE – PROCESSING At least 25 records, 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 marks.							
	<input type="checkbox"/> At least 25 appropriate, relevant records in one or more tables <input type="checkbox"/> At least ONE relevant query that is correct and meaningful and will inform/support the problem/solution/demonstrate understanding of appropriate links <input type="checkbox"/> At least ONE <u>other</u> relevant query that is correct and meaningful and will inform/support the problem/solution/demonstrate understanding of appropriate links <input type="checkbox"/> At least one relevant, meaningful and correct report that informs/supports the problem/solution	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 present	No database OR none of the 4 aspects present	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
10	DATABASE – COMPLEXITY OF QUERIES The following represent the four different levels of complexity of database queries: ① Only fields with 1 simple criterion (for example 'X', >X, =X, not 'X', Is Null) ② One field with combined criteria using conditions and relational operators (for example 'X' or 'Y', >1 and <10 or ranges such as 'Between 1 and 10') <u>OR</u> One field with criterion including wild cards ('*' or '?') ③ Simple calculated field using arithmetic operators (+, –, *, /) <u>OR</u> Date and time functions/calculations ④ Complex calculated field (for example Sum, Min, Max, Avg, Count) <u>OR</u> queries that use Grouping <u>OR</u> queries that use logical (IF) or text functions <u>OR</u> advanced functions that are not in the CAT CAPS curriculum							
	<input type="checkbox"/> At least ONE meaningful aspect from level ①. <input type="checkbox"/> At least ONE meaningful aspect from level ②. <input type="checkbox"/> At least ONE meaningful aspect from level ③. <input type="checkbox"/> At least ONE meaningful aspect from level ④. NOTE: Any incorrect/meaningless aspect/function does NOT qualify for consideration. List any function (where applicable) used that is not part of the curriculum	4	Meaningful use of aspects from all 4 levels (①, ②, ③ and ④)	Meaningful use of aspects from any 3 different levels (①, ②, ③ or ④)	Meaningful use of aspects from any 2 different levels (①, ②, ③ or ④)	Meaningful use of aspects from only 1 level (①, ②, ③ or ④)	No database OR no relevant, meaningful queries done	
11	DATABASE – COMPLEXITY OF REPORT NOTE: Any incorrect/meaningless aspect/function does NOT qualify for consideration.							
	<input type="checkbox"/> Report sorted according to at least one field <input type="checkbox"/> Contains at least ONE meaningful calculation using a function (Min, Max, Sum, Avg, Count) in the report footer <input type="checkbox"/> Report is grouped appropriately on at least ONE field <input type="checkbox"/> Reports contains at least ONE meaningful calculation in the group section	4	Meaningful use of all 4 aspects	Meaningful use of any 3 aspects	Meaningful use of any 2 aspects	Meaningful use of any 1 aspect	No database OR No relevant, appropriate report(s)	

TOTAL MARK FOR PHASE 2:	44	MARK OBTAINED	
Comment/Feedback: _____ _____			
Teacher name: _____ Teacher signature: _____			

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

The teacher **MUST** highlight or tick applicable criteria in the second column. The number of ticks in this second column does not always determine the mark obtained in columns 4 to 8. Relate the criteria to the mark, for example in item 1, if answers to all 4 questions are evident, then a mark of 4 is awarded.

REPORT

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
1	REPORT – TECHNICAL ASPECTS – COVER PAGE							
	<input type="checkbox"/> Cover page added correctly <input type="checkbox"/> Appropriate content controls used <input type="checkbox"/> Name and surname, name of school and topic added <input type="checkbox"/> Meaningful abstract/extract included	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 present	No cover page added OR no suitable control components	
2	REPORT – TECHNICAL ASPECTS – GENERAL PRESENTATION							
	<input type="checkbox"/> Appropriate, readable fonts, size (10–12 pt) <input type="checkbox"/> Not more than two fonts used <input type="checkbox"/> Appropriate word spacing and basic punctuation used <input type="checkbox"/> No spelling or grammar mistakes highlighted	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 present	None of the aspects present	
3	REPORT – TECHNICAL ASPECTS – HEADINGS							
	<input type="checkbox"/> Styles used to give headings due prominence (typically 12-18 pt) <input type="checkbox"/> Different levels of headings are clearly distinguished <input type="checkbox"/> Headings stand out clearly from other (body) text. <input type="checkbox"/> Heading styles used to ensure that headings are formatted in a consistent way.	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 present	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
4	REPORT – TECHNICAL ASPECTS – BODY TEXT							
	<input type="checkbox"/> Appropriate line and paragraph spacing (no 'empty' paragraphs) used <input type="checkbox"/> Consistent formatting throughout <input type="checkbox"/> Body text is formatted in a consistent way so it is easily distinguished from headings. <input type="checkbox"/> All body text is left aligned.	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 present	
5	REPORT – TECHNICAL ASPECTS – PAGE LAYOUT							
	<input type="checkbox"/> Automatic page numbering used. <input type="checkbox"/> Header/footers/page numbering set appropriately per section <input type="checkbox"/> Page breaks used to start new pages <input type="checkbox"/> Uses section breaks to start new sections, for example <i>Appendices</i> .	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 present	
6	REPORT – TECHNICAL ASPECTS – EASE OF NAVIGATION							
	Professional, well-structured document that is easy to navigate and in which information is easy to find.							
	<input type="checkbox"/> Updated, automatic table of contents, correctly inserted <input type="checkbox"/> Other tables (tables, figures) and appendices correctly inserted <input type="checkbox"/> Hyperlinks/Bookmarks (other than the table of contents) used appropriately and correctly to navigate to other documents, for example spreadsheet and database <input type="checkbox"/> Hyperlinks to external data/information sources for example spreadsheet and database are easy to understand/discern	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
7	REPORT – PLAGIARISM AND CITATION ISSUES							
	Presented in learner's own words with all sources cited and all graphics from other sources acknowledged. Signed declaration of authenticity is included.							
	<div><input type="checkbox"/> All sources used are clearly and appropriately acknowledged</div> <div><input type="checkbox"/> Graphics from other sources are clearly and appropriately acknowledged</div> <div><input type="checkbox"/> Citations present are added correctly</div> <div><input type="checkbox"/> No citations found to be missing in any part of the report</div>	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	
8	REPORT – TECHNICAL ASPECTS – ACKNOWLEDGEMENTS AND EVIDENCE							
	Professional, well-structured document that gives credit to sources used, using sound word processing functions, principles and techniques							
	<div><input type="checkbox"/> Automatic reference list/bibliography correctly inserted</div> <div><input type="checkbox"/> Automatic, appropriate captions correctly inserted for all tables/figures</div> <div><input type="checkbox"/> Automatic table of figures/diagrams added</div> <div><input type="checkbox"/> Supporting documentation added as part of document (appendices), clearly distinguishable from main document (for example different sections, restarting page numbers, descriptive headers/footers)</div>	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	
9	REPORT – INTRODUCTION							
	Clear, concise introduction providing background information that tells 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)?							
	<div><input type="checkbox"/> Clear overview and focus of the of problem given</div> <div><input type="checkbox"/> Purpose of the investigation clearly stated</div> <div><input type="checkbox"/> Clear focus in terms of which aspects were investigated</div> <div><input type="checkbox"/> No unnecessary, additional information added</div>	4	All 4 aspects clearly stated and no other/unnecessary information	Only 3 of the 4 aspects clearly stated with no other/unnecessary information	Only 2 of the 4 aspects clearly stated	Only 1 of the 4 aspects clearly stated OR only a copy of the task definition/focus question appears	None of the 4 aspects clearly stated	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
10	REPORT – DISCUSSION (BODY) – ORGANISATION Information used from Phases 1 and 2, are relevant to the investigation/supportive of different aspects within the investigation and the information is logically sequenced and flows naturally from one aspect to the next to ensure easy reading and clear understanding. Content is organised using appropriate headings.							
	<input type="checkbox"/> Only relevant, appropriate data/information used from Phases 1 and 2 <input type="checkbox"/> Relevant information grouped together under the appropriate headings <input type="checkbox"/> Information logically sequenced and flows naturally from one heading/paragraph to next <input type="checkbox"/> All graphics used are relevant and appropriate	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	
11	REPORT – DISCUSSION (BODY) – ARGUMENTS, FINDINGS AND SUPPORTING INFORMATION Discussion contains at least three relevant, appropriate findings/arguments/claims related to the investigation that are supported by data/information gathered and processed (charts/graphs/queries/reports, et cetera) or manipulated (combined, integrated and synthesised from various sources) and includes a meaningful explanation of how or why the data/information supports the finding/argument/claim (connects data/information to argument/claim). 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.							
	<input type="checkbox"/> At least THREE appropriate claims/arguments/findings that are appropriate and relevant to the investigation <input type="checkbox"/> All claims/arguments/findings are supported by relevant, appropriate data/information <input type="checkbox"/> Meaningful explanation of how or why the evidence supports the argument/claim and show a clear understanding of the problem and investigation <input type="checkbox"/> Findings/Recommendations include some new/thoughtful ideas/insights about the problem/investigation	4	All 4 aspects clearly present for all claims/arguments	Only 3 of the 4 aspects clearly present for most claims/arguments	Only 2 of the 4 aspects clearly present for all claims/arguments OR all 4 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 4 aspects clearly present OR not done OR claims/arguments not meaningful/totally irrelevant	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
12	REPORT – CONCLUSION Meaningful and logical conclusion drawn from the information and evidence presented, and addresses the original problem/investigation, appropriately summarised. Any new information presented at this point must have been appropriately investigated/researched, with supporting evidence.							
	<input type="checkbox"/> Conclusion present <input type="checkbox"/> Conclusion drawn from information presented in report and addresses the original problem statement/focus in light of the evidence presented <input type="checkbox"/> Conclusion is meaningful and logical and relevant to the focus question in Phase 1 <input type="checkbox"/> 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	
TOTAL MARK FOR REPORT:		48	MARK OBTAINED					

WEBSITE

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
13	WEBSITE – GENERAL ASPECTS							
	<input type="checkbox"/> Saved as HTML and opens correctly – no errors <input type="checkbox"/> Home page with title included <input type="checkbox"/> At least two other webpages <input type="checkbox"/> Style/Content 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	
14	WEBSITE – GENERAL APPEARANCE							
	<input type="checkbox"/> All pages – consistent appearance (formatting, background, colours, layout, font, et cetera) <input type="checkbox"/> Colours/textures of background and fonts form a pleasing palette, does not detract from the content or readability <input type="checkbox"/> Font size varies appropriately for headings/subheadings and text, and enhances readability <input type="checkbox"/> 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	
15	WEBSITE – ORGANISATION AND READABILITY							
	Correct grouping and structuring of elements and information. Layout and organisation enhances readability and understanding							
	<input type="checkbox"/> Attractive and usable layout. Easy to locate all important elements/information (for example easy to read and skim/scan) <input type="checkbox"/> Related information grouped together <input type="checkbox"/> Different elements/parts (for example header/ banner/title, body/content, footer, credits) clearly distinguishable/separated, for example using horizontal lines <input type="checkbox"/> 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
16	WEBSITE – GRAPHICS AND ACCESSIBILITY Relevance, quality and accessibility of graphics							
	<input type="checkbox"/> All graphics are relevant to the topic/purpose of the site <input type="checkbox"/> There are no broken images (images display) <input type="checkbox"/> All graphics are thoughtfully cropped/sized, are of high quality and enhance reader interest or understanding. <input type="checkbox"/> 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	
17	WEBSITE – NAVIGATION Functional, logical/intuitive and user-friendly navigation							
	<input type="checkbox"/> Working hyperlinks are used to create a navigation system which allows users to move from the home page to related pages and back <input type="checkbox"/> Hyperlinks use meaningful descriptive text <input type="checkbox"/> Easy to navigate and there are no 'dead links' <input type="checkbox"/> 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	

	CRITERIA	Possible mark	4	3	2	1	0	Mark obtained
18	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.							
	<input type="checkbox"/> Site contains good quality, relevant and factually correct content about the topic <input type="checkbox"/> Demonstrates good understanding of the information/material included in the site, and additional, good quality information presented in functional hyperlinks <input type="checkbox"/> Good language used, suited to target group with no spelling and grammar mistakes <input type="checkbox"/> 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	
19	WEBSITE – PLAGIARISM Guidelines followed that recognise material borrowed from other sources							
	<input type="checkbox"/> Citations inserted as needed for any text content from other sources <input type="checkbox"/> Citations added are inserted in correct format <input type="checkbox"/> Graphics/images from other sources clearly acknowledged <input type="checkbox"/> Clear, easy-to-locate and accurate citations for all borrowed material	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
20	WEBSITE – ADDITIONAL TAGS/FEATURES USED (OUTSIDE CURRICULUM)							
	Learner demonstrates knowledge/skills not included in the curriculum, but that enhance the website							
	<input type="checkbox"/> Tag/Aspect not specified in curriculum added (Specify): <input type="checkbox"/> Tag/Aspect is appropriate for use in the context (enhances website) <input type="checkbox"/> Tag/Aspect not specified in curriculum added (Specify): <input type="checkbox"/> Tag/Aspect is appropriate for use in the context (enhances 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 OR no tags /aspects not specified in curriculum added	
TOTAL MARK FOR WEBSITE:		32	MARK OBTAINED					

GENERAL

21	EVIDENCE AND ORGANISATION OF ALL DOCUMENTS (ALL PHASES)							
	Format and organisation of material/evidence							
	<input type="checkbox"/> Electronic and/or hard copies of all documents (including evidence of sources) available <input type="checkbox"/> All files organised into a logical folder structure (subfolders within each phase), clearly named <input type="checkbox"/> Structure is easy to find/navigate <input type="checkbox"/> Meaningful folder and file names used throughout	4	Clearly contains all 4 of the 4 aspects	Clearly contains 3 of the 4 aspects	Clearly contains 2 of the 4 aspects	Clearly contains 1 of the 4 aspects	No evidence OR contains none of the 4 aspects	
TOTAL MARK FOR GENERAL:		4	MARK OBTAINED					

TOTAL MARK FOR PHASE 3:	84	MARK OBTAINED	
Comment/Feedback: <hr/> <hr/>			
Teacher name: _____ Teacher signature: _____			

LEARNER NAME: _____

DATE SUBMITTED: _____

General evaluation based on continuous observation and final impression*Note that the learner's efforts may well match descriptors in one or more categories (0–4). The mark allocated should fit the category which best matches the learner's efforts.*

Aspect	Characteristics/Descriptors					Mark
	4	3	2	1	0	
Attitude, commitment and work ethic	<ul style="list-style-type: none"> • Showed exceptional commitment throughout • Worked diligently and showed an exceptionally high level of commitment and pride in work at all times • Always showed high level of enthusiasm and a positive work ethic 	<ul style="list-style-type: none"> • High level of commitment throughout • Generally committed performance and showed pride in work most of the time • Generally positive attitude with a sound work ethic 	<ul style="list-style-type: none"> • Fair level of commitment shown in some parts • Showed some commitment and pride in the work done but was not always consistent • A positive attitude was present at times but needed some 'prodding' 	<ul style="list-style-type: none"> • Low level of commitment shown • Did not work on regular basis with a general lack of commitment and pride in the work • Generally needed a lot of 'prodding' to get going with not much evidence of a positive attitude 	<ul style="list-style-type: none"> • Low level of commitment shown throughout • Hardly worked at all/erratic performance with little or no pride or commitment shown at all • Negative attitude discernible throughout with a largely 'don't' care attitude' clearly evident 	
Effort	<ul style="list-style-type: none"> • Excellent, sustained effort demonstrated throughout • Always took time and effort to clarify and follow all instructions 	<ul style="list-style-type: none"> • High level of effort shown throughout • Took time and effort to clarify and follow all instructions 	<ul style="list-style-type: none"> • Effort was not sustained across all phases • Did not always pay clear attention to instructions or bother to clarify instructions when in doubt 	<ul style="list-style-type: none"> • Very little effort shown throughout • Very limited attempt to follow or clarify instructions as required 	<ul style="list-style-type: none"> • Virtually no effort shown throughout • Did not bother to follow or clarify any instructions as needed 	
Independent working skills	<ul style="list-style-type: none"> • Carried out the project in a highly independent fashion • Showed outstanding level of skills/growth in knowledge and skills 	<ul style="list-style-type: none"> • Needed very little help or guidance, showed independent working skills and clear evidence of responding well to feedback/guidance given • Showed definite growth in knowledge and skills 	<ul style="list-style-type: none"> • Some independent working present and some evidence that he/she responds to guidance given • Showed some growth in knowledge and skills 	<ul style="list-style-type: none"> • Showed little independence/Minimal evidence that he/she responds to guidance given. • Showed limited growth in knowledge and skills 	<ul style="list-style-type: none"> • No evidence of ability to work independently /Minimal or no evidence of responding to guidance given • Showed no discernible growth in knowledge and skills 	
Organisational skills	<ul style="list-style-type: none"> • Always kept to due dates. • Exceptionally well-organised in terms of planning, scheduling and managing 	<ul style="list-style-type: none"> • Always kept to due dates. • Well organised in terms of scheduling and managing time 	<ul style="list-style-type: none"> • Two phases were on time • Erratic in terms of organisational skills/Strong tendency to procrastinate 	<ul style="list-style-type: none"> • One phase was on time • Shows little evidence of organisational skills/Very high level of procrastination 	<ul style="list-style-type: none"> • None of the phases on time. • Completely disorganised 	
Professional Products (Reports and Website)	<ul style="list-style-type: none"> • Produced products of the highest calibre with very little scope for improvement • Products were meaningful and could be used in real life 	<ul style="list-style-type: none"> • High quality products produced with a high level of professionalism • Can be implemented or used in real life after minor adjustments 	<ul style="list-style-type: none"> • Professional in parts but not consistently so and some parts were done in a sloppy fashion • Can be implemented in real life after significant adjustments 	<ul style="list-style-type: none"> • Products produced were sloppy and unprofessional • Would virtually need a complete revamp to use in real life 	<ul style="list-style-type: none"> • No products produced OR quality very poor • Not ready to be implemented in real life 	
Total: 20						

LEARNER NAME: _____

DATE: _____

Assessment Summary

Phase	Focus	Maximum Mark	Mark Obtained
Phase 1	Find and access data and information	32	
Phase 2	Process data and information	44	
Phase 3	Present information/solution – Report	48	
Phase 3	Present information/solution – Website	36	
General	Observations made and overall evaluation	20	
Total:		180	/180
			/100

Declaration of Authentication by Teacher

I hereby declare that, to the best of my knowledge, the work assessed is solely that of the learner (except where there is clear acknowledgement and record of any substantive advice/assistance given to the learner) concerned and that the work was conducted under supervised/controlled conditions to ensure that it 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 a page border is used.
 - Avoid 'arty' borders and backgrounds/Do **NOT** use Word Art/Text Art.
-

Headings

- The font used should be easy to read, for example Cambria or Calibri.
 - Different levels of headings should be clearly distinguished.
 - The font size should vary between 12 to 18 pt.
 - Ensure that headings stand out clearly from other text.
 - Use 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, for example Cambria or Calibri.
 - 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 (for example 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	2016
Subject	Computer Applications Technology		
Practical Assessment Task (PAT)		Teacher	
Did you receive any help/information from anyone to complete this project? <input type="checkbox"/> No <input type="checkbox"/> 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.			
_____ SIGNATURE OF LEARNER		____ / ____ / 2016 DATE	

Addendum D: Sample Questions and Sources Table (Phase 1)

NO.	QUESTION	QUESTION LEVEL (1,2,3,4)	CATEGORY	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		QUALITY OF INFORMATION FOUND		SUMMARY OF INFORMATION FOUND
1	Internet/ Website	Authors(s)	Spark, James	Authority	...	<Hyperlink 1>
					Name of Website/ Web Page	Power On! – Let's Save	Currency	...	
					Date created/updated	12 January 2016	Accuracy	...	
					Date accessed	14 February 2016	Objectivity	...	
					URL	www.example.com	Coverage	...	
2	Magazine	Author(s)	Cabala, Xolani	Authority	...	<Hyperlink 2>
					Title	Solar power for all	Currency	...	
					Date published	December 2015	Accuracy	...	
					Publisher	Power Press	Objectivity	...	
					City	Johannesburg	Coverage	...	
3
...
...
...
10

Addendum E: 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 learn