



basic education

Department:
Basic Education
REPUBLIC OF SOUTH AFRICA

COMPUTER APPLICATIONS TECHNOLOGY

GUIDELINES FOR PRACTICAL ASSESSMENT TASKS (REVISED)

LEARNER GUIDELINES

2020

**IMPORTANT
MESSAGE**

- **ALL GRADE 12 CONTENT IN THE CURRICULUM IS EXAMINABLE.**
- **This revised PAT does NOT imply that certain sections of the CAPS will be excluded from the NSC 2020 examinations.**
- **The database and web design sections do not appear in this revised PAT.**

These guidelines consist of 49 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 17 Curriculum and Assessment Policy Statements subjects which contain a practical component all include a practical assessment task (PAT). These subjects are:

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

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

2. GUIDELINES

2.1 What is the PAT?

The PAT (practical assessment task) is an individual research project that 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 2.3 – The topic) on which to base your PAT.

You have to:

- Analyse the broad topic/scenario and decide which issue best aligns with your interests and where you believe you can find most data
- 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 related to the task
- Design and create a spreadsheet 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

The PAT will be done in THREE phases over the first THREE terms of the Grade 12 year:

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 and 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 that 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-processed report that contains 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 series of linked tasks, so you need to picture or 'imagine' what your final 'product' or report will look like and manage your time appropriately.

2.2 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	25%
Phase 2	Process data and information	24	19%
Phase 3	Present information/solution	52	41%
General	Observation and overall evaluation	20	15%
TOTAL		128	100%

NOTE: The final PAT mark 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' (Section 2.7) and 'Non-compliance' (Section 2.8).

Your PAT could be moderated by provincial subject advisors and a sample could also be quality assured by Umalusi.

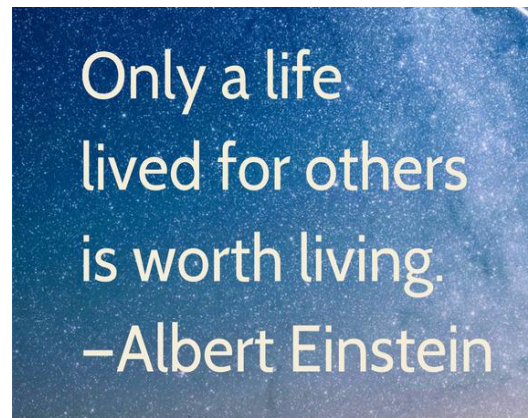
The 'General' section (observation and overall evaluation) will be completed after you have submitted Phase 3. It will, however, not only be based on the resultant products, but also on observations of how you worked and conducted yourself throughout the full duration of the PAT in terms of your:

- 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 the final CAT practical examination.

2.3 The topic

TOPIC – VOLUNTEER OPPORTUNITIES



'Most of the time, to volunteer means that you are working side by side with others. This connects you to other human beings as you are working toward a common goal. When you volunteer, you are making connections. You are connected with the community. You are connected with the problem, as well as the solution. You are connected to a process – a process in which you believe. Through your actions and involvement, you are benefitting others as well as yourself.'¹

'Volunteering offers vital help to people in need, worthwhile causes and the community, but the benefits can be even greater for you, the volunteer. Volunteering and helping others can reduce stress, combat depression, keep you mentally stimulated and provide a sense of purpose.'²

Your school would like to expose learners to opportunities of being involved in volunteer programmes. You were tasked to research possible problems that could be addressed by a/ some volunteer programme(s).

Examples of volunteer programmes include:

- Disaster relief (e.g. Doctors without Borders, Gift of the Givers)
- Low-cost housing projects (e.g. Habitats for Humanity)
- Animal welfare (e.g. SPCA, CARE, SANCCOB)
- Prevention of malaria and other communicable diseases (e.g. Global Volunteers)
- The right to sight (e.g. World Vision)
- Water purification (e.g. Water Collective)
- Homelessness (e.g. U-Turn, Better SA, Kids Haven)
- Promoting general literacy (e.g. help2read)
- Women empowerment (e.g. GVI, Volunteering Journeys, GoEco)
- Working with children with disabilities (e.g. Khaya Volunteer Projects, you2africa, Nazareth House)
- Helping senior citizens (e.g. Chabad House)
- Feeding schemes, e.g. soup kitchen, sandwiches (e.g. Via Volunteers, Feed SA)

¹ <https://lotsahelpinghands.com/blog/volunteer-means/>

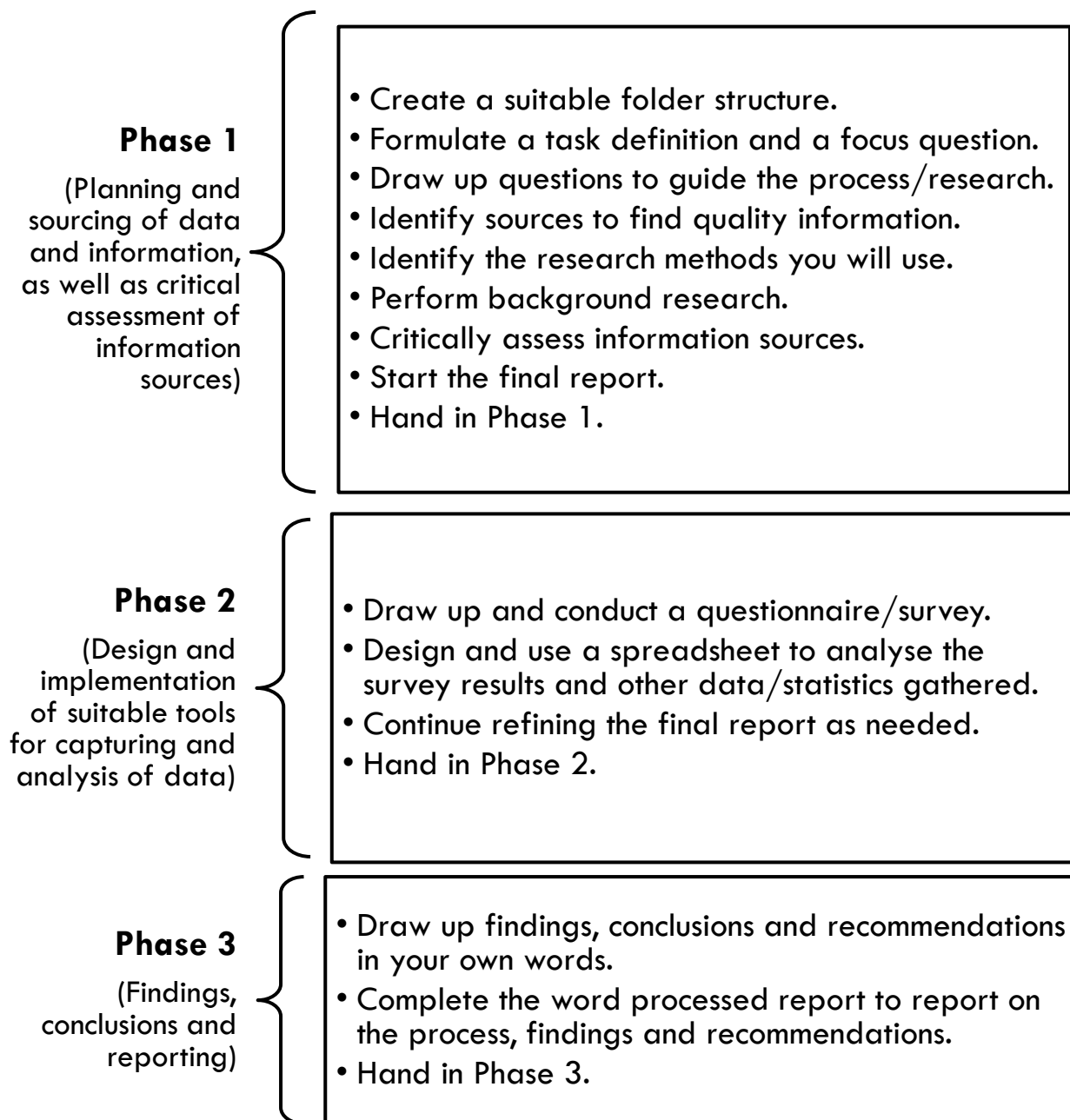
² <https://www.helpguide.org/articles/healthy-living/volunteering-and-its-surprising-benefits.htm>

Your task is to:

- Investigate a current issue at international, national, provincial, local or school level
- Investigate how this topic affects the community in terms of:
 - The existing problems and challenges faced
 - Community involvement in the solution to the problem
 - Look at (partial) solutions for individuals, institutions such as schools or hospitals, companies, government, etc.
- Gather and analyse data relevant to the problem
- Identify a volunteer programme/opportunity that could address/solve the problem
- Identify possible aspects of the issue that the volunteer programme will address
- Identify a suitable audience (such as the school management team, community forum, etc.) that you can present your research and findings to in a report that they could use or implement

NOTE: You are **NOT** allowed to choose recent topics linked to 'Conservation' or 'Saving water'.

2.4 Overview of tasks



2.5 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.

2.6 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
- A web browser (e.g. Edge, Chrome or Firefox)
- Internet access to:
 - Find data and information
 - Administer electronic questionnaires, e.g. use e-mail to send questionnaires to respondents and receive completed questionnaires from respondents
- Access to other sources, such as printed media (e.g. magazines, newspapers, brochures, textbooks) or other electronic material (e.g. e-books, e-articles)
- Access to facilities to convert hard copies to electronic documents, e.g. scanner, digital camera, smartphone
- Storage media to store and backup your work electronically, e.g. flash drive, rewritable CD/DVD

2.7 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.

2.8 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.

2.9 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 an issue/opportunity based on the overall topic of 'Volunteer opportunities' and do some pre-reading regarding the issue/opportunity before you start with Phase 1 to gain background knowledge about the issue/opportunity.
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.

2.10 Instructions for Phase 1

The purpose of this phase of the PAT is to first create a suitable and logical electronic folder structure in which 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 in which 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 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-processed report that contains 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
 - A content control for the abstract

- **An automatic table of contents**
- **An automatic table of figures**
- **Headings**

You need to add the following provisional headings: *Table of Contents, Table of Figures, Introduction, Task Definition, Focus Question, Discussion and Analysis, Findings, Conclusion, Bibliography* and *Appendices*.

NOTE: Some headings will not have any content until Phase 2 or 3.

- An **addendum** under the heading *Appendices* you created in your report **with a diagram or a screenshot** showing the folder structure, including any subfolders, used for Phase 1. Give it a suitable heading such as '*Folder Structure*' and paste the diagram or screenshot in this addendum.
- An **addendum** with the **declaration of authenticity** that will be used during all the phases.

HINTS:

- Apply the word processing skills you have learnt to produce a *professional-looking* 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), i.e. why you are doing this investigation
 - Indicate the focus and the purpose of your investigation (desired outcome), 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, etc.)
 - Identify a realistic target audience for the final report that will be drafted

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

- **What** is the current situation?
- **What** will be the focus and purpose (desired outcome) of my investigation?
- **How** will I go about the investigation considering all the PAT requirements?
- **Who** is the target audience?

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

- Processed using a spreadsheet

Determine the focus question

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

4. Considering the issue/opportunity you have chosen 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(s) 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 issue/opportunity
 - Clearly relevant to/the focus point of the chosen issue/opportunity

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 (also see **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 addendum 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 asked 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 (and 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, etc.)
②	Give direction to the investigation (why, how, etc.)
③	Support predictions or help with any changes, alternatives or variations (what if, if, etc.)
④	Support your judgement or help to evaluate, critique, review or find meaning (would it be better if, what recommendation, what would be best, etc.)

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 your questions and categorise/group them under at least **THREE** categories. This is so that the information you gather in answer to these questions is logically grouped together. Add the category into which each question falls, e.g. 'Problem' or 'Solution', to the table. An example of a possible extract from this table (with the relevant details added) is shown below.

NOTE: These categories will become headings, later in Phase 3.

Some examples:

Background: Which feeding schemes are active in my community?

Problem: How do we identify children in need of feeding schemes?

Impact: Will feeding schemes help children in need in the long term?

Costs: What does it cost to run a feeding scheme in my community?

Solution: How can we all get involved to solve the problem of children who are underfed in our community?

NOTE: Do NOT use the examples above verbatim.

No.	QUESTION	QUESTION LEVEL (1, 2, 3, 4)	CATEGORY	TYPE OF SOURCE
1	What is the most efficient way to conduct a survey?	2	Background	...
...
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 data/information and gather quality data/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 data/information for each question.
 - You must use the **internet** (at least TWO different websites) **plus** at least ONE other source, e.g. media (printed/electronic), such as newspapers, magazines, brochures, textbook, etc. or an expert (e-mail/interview), etc.
 - Provide bibliographical information for the sources you use (**at least TWO websites and ONE other source**) as follows:
 - For each website, record the following information:

WEBSITE SOURCE	
Author(s)/Organisation/Publisher	Lange, Gill
Name of website and web page	The culture trip
Date created/updated	24 May 2018
Date accessed	14 February 2020
URL	https://theculturetrip.com

Figure 4: Example of bibliographical information needed for a website source

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

OTHER SOURCE	
Author(s)	Fortuna, Cathryn
Title of source	10 Best volunteer programs in South Africa
Date published/issued	1 May 2019
Publisher	Go Abroad

Figure 5: Example of bibliographical information needed for printed media source

- Now add all this information in the appropriate columns in the Questions and Sources table you created. Modify the table as needed. You can also add the bibliographical information as sources in the word processing document. A **partial** example of how you could go about it is shown on the next page.

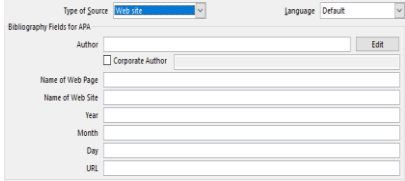
No.	QUESTION	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		...
1	...	Internet/ Website	Authors(s)	Lange, Gill	...
			Name of website/ web page	The Culture Trip	...
			Date created/ updated	24 May 2018	...
			Date accessed	14 February 2020	...
			URL	https://theculturetrip.com	...
2	...	Magazine	Author(s)	Fortuna, Cathryn	...
			Title	10 Best volunteer programs in South Africa	...
			Date published	1 May 2019	...
			Publisher	Go Abroad	...
3	...	Internet/ Website	Authors(s)	(Moodley, 2019)	...
			Name of website/ web page		
			Date created/ updated		
			Date accessed		
			URL		
4	...	Internet/ Website			...

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. If the details are included in the sources of your report document, you may add the citation only, as shown above. The bibliography with all the details must be included in your Phase 1 document should you choose to include only the citation in this table.

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	Correspondence of the information with other sources
Objectivity	Any presence of prejudice, bias, skewing of information, etc.
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)	Lange, Gill	Authority	The author is a leader on the front of traveling and volunteering abroad.
			Name of website/ web page	10 Best volunteer programs in South Africa	Currency	The article was published in 2019 reflecting the latest volunteer programs available.
			Date created/ updated	1 May 2019	Accuracy	Information provided corresponds with other sources and is also accurate in terms of providing recent programs.
			Date accessed	14 February 2020	Objectivity	There is no bias on the web page and the information is presented in a factual, objective fashion.
			URL	https://theculturetrip.com	Coverage	The article provides extensive coverage on a wide variety of volunteer programs available.
2	...	Magazine	Authors(s)	Fortuna, Cathryn	Authority	...
			Title	10 Best volunteer programs in South Africa	Currency	...
			Date published	1 May 2019	Accuracy	...
			Publisher	Go Abroad	Objectivity	...
					Coverage	...
3

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

TIP: You can split the main table and create a separate table for the quality of the information if you find it easier to work with.

Engage with and use data and information

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. 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
	Authors(s)	Name of website/web page	Authority	Currency	
Internet/Website	Authors(s)	Lange, Gill	Authority	The author is a leader on the front of traveling and volunteering abroad.	<ul style="list-style-type: none"> • Top 10 volunteer programs • A highly rewarding way of traveling is to volunteer • Khaya Volunteer program offers gap year programs
	Name of website/web page	10 Best volunteer programs in South Africa	Currency	The article was published in 2019 reflecting the latest volunteer programs available.	
	Date created/updated	1 May 2019	Accuracy	Information provided corresponds with other sources and is also accurate in terms of providing recent programs.	
	Date accessed	14 February 2020	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 volunteer programs available.	
...
...

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 on the next page. Note the last column.

	TYPE OF SOURCE	BIBLIOGRAPHICAL INFORMATION		QUALITY OF INFORMATION FOUND		SUMMARY OF INFORMATION FOUND
...	Internet/ Website	Authors(s)	...	Authority	...	Hyperlink to summary 1
		Name of website/ web page	...	Currency	...	
		Date created/ updated	...	Accuracy	...	
		Date accessed	...	Objectivity	...	
		URL	...	Coverage	...	
...
...

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 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: *Table of Contents, Table of Figures, Introduction, Task Definition, Focus Question, Discussion and Analysis, Findings, Conclusion, Bibliography 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
- An addendum with the declaration of authenticity

NOTE: 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.

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.

2.11 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 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 skilfully 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, e.g. 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:

- How to raise awareness about an issue identified in the community?
 - How are people in your community affected by the issue you have chosen?
 - Which volunteer programme would assist your community?
 - What are the general attitudes/concerns of the public regarding the specific volunteer programme?
 - What actions could people take to assist with or get involved in the volunteer programme?
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, etc. This can be done by:
 - Creating a questionnaire in a word processor and either e-mailing it (or placing a link online) or getting different people in your school to answer them (saved under different file names). Note that the questionnaire **must** be created in a word processor first to be handed in (even if it is ultimately going to be conducted online).
 - Printing and distributing copies of the questionnaire OR
 - Creating an online version of the questionnaire you created using a word processor or by using an online tool such as an editable PDF document, Google Forms, SurveyMonkey, etc.
 3. Formulate at least 5 questions, excluding biographical data (e.g. 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, e.g. use content controls/form fields to enable respondents to complete the questionnaire electronically and for you to easily save the data/information.
 - 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 (e.g. appropriate word processing) techniques.
 - It is a good idea to get other learners to 'test' your survey to see whether it is easy. Remember that you should have at least 25 respondents. You need to store the completed questionnaires in an appropriate folder under Phase 2. In the case of an online survey, the results of these surveys must be downloaded and saved in an appropriate folder under Phase 2.
 - Hard-copy 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 number of people affected, etc.) that may require the use of a spreadsheet and worksheets within the spreadsheet.

5. Create a spreadsheet with a meaningful file name and save it in an appropriate subfolder in the Phase 2 folder.
6. 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.

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
7. 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, e.g. 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
8. 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 on the next page):

LEVEL	EXAMPLES OF FORMULAS/FUNCTIONS
①	Simple functions that only use/include a single cell range, e.g. 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, e.g. ROUND, LARGE, SMALL, LEFT, RIGHT, CONCATENATE, COUNTIF, SUMIF <u>OR</u> Calculations using a combination of arithmetic operators and brackets <u>OR</u> Calculations using a combination of any two simple functions from level ①
③	Functions that include a cell range plus two parameters/conditions, e.g. 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 must 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.

9. Summarise the results that you will use in the report on a separate worksheet within the same spreadsheet.
10. 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.
 - Use appropriate types of graphs and options.
 - Ensure that the graphs are easy to read and interpret.
 - You must have at least two relevant graphs, although more might be useful.

NOTE: You must be able to use the information obtained from these formulas, functions and graphs **as findings or partial findings and conclusions** in your final report.

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

Continue working on the report

12. 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:

13. 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. Hard-copy 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
- 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.

2.12 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**

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, as a guide, 6–8 pages long with the following sections:

- A cover page
- An introduction
- Discussion and analysis
- The findings and conclusions
- Any appendices that are needed

Suitable headings must appear in these sections. The categories, created in Phase 1, now become headings.

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** and the notes on referencing below:

Referencing

- Using the information in Phase 1, add an automatically generated reference list/bibliography using the features of your word processor. Ensure that 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 subject name
 - The PAT 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 see, at a glance, whether or not they wish to read the full report.

Note that the abstract is not an introduction to, but rather an overview of the content and purpose of the report and should include a very brief mention of the findings.

TIP: You are advised to recheck 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.

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

6. Discussion and analysis

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

7. Formulate your findings.
- You need to formulate at 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. Formulate 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.

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**

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.

2.13 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, e.g. in item 1, if answers to all 4 questions are evident, then a mark of 4 is awarded.

	CRITERIA/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
1	<p>TASK DEFINITION</p> <p>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.</p> <p>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.</p>							
	<input type="checkbox"/> What is the current situation? <input type="checkbox"/> What will the focus and purpose (desired outcome) of my investigation be? <input type="checkbox"/> How will I go about the investigation, considering all the PAT requirements? <input type="checkbox"/> Who is the target audience for the final report? (Target audience should be realistic)	4	All 4 questions in the criteria clearly answered and in the learner's own words	Only 3 of the 4 questions in the criteria clearly answered and in the learner's own words	Only 2 of the 4 questions in the criteria clearly answered and in the learner's own words	Only 1 of the 4 questions in the criteria clearly answered and in the learner's own words	Not done OR None of the criteria clearly answered OR Any part of the task definition not in the learner's own words	

	CRITERIA/ASPECTS	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 <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 (e.g. 'factual/closed', 'investigate/explore', 'predict/change', 'judge/evaluate') relevant to the topic, that will help to address the problem 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 topic and will help to address the problem <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/ASPECTS	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).							
	<input type="checkbox"/> Possible, appropriate source type (e.g. internet/printed media/people) indicated for each question <input type="checkbox"/> At least 10 questions included Number of sources, excluding questionnaire : <input type="checkbox"/> At least 2 websites identified as potential sources <i>plus</i> <input type="checkbox"/> At least 1 other source from another type/media (e.g. magazine, newspaper, brochure, textbook – printed or electronic format), e-mail/ interview with an expert	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 at least THREE sources listed as required.							
	Aspects/Criteria for websites: <input type="checkbox"/> Authors(s) <input type="checkbox"/> Name of website/web page <input type="checkbox"/> Date created/updated <input type="checkbox"/> Date accessed <input type="checkbox"/> URL Relevant aspects/criteria for other types of sources: <input type="checkbox"/> Authors(s) <input type="checkbox"/> Title <input type="checkbox"/> Date published <input type="checkbox"/> Publisher, etc.	4	All applicable aspects addressed for all 3 (minimum) sources	All applicable aspects addressed for at least 2 sources OR 4 or 5 aspects addressed for at least 3 sources	Applicable aspects addressed for at least 1 source OR 2 or 3 aspects addressed for at least 2 sources	Some applicable aspects addressed for at least 1 source	No source details provided OR No sources provided	

	CRITERIA/ASPECTS	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 aspects clearly addressed and correctly motivated/ explained for all 3 sources	All aspects addressed for at least 2 sources OR 4 or 5 aspects addressed for all 3 sources	All aspects addressed for at least 1 source OR 2 or 3 aspects addressed for 2 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 OR One-word answers	
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 are completed for all the questions <input type="checkbox"/> Summaries give information available in the sources <input type="checkbox"/> Information is relevant to the topic <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	

	CRITERIA/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
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: Table of contents, Table of Figures, Introduction, Task Definition, Focus Question, Discussion and Analysis, Findings, Conclusion, Bibliography and Appendices <input type="checkbox"/> An addendum with a diagram/screenshot of the actual folder structure for Phase 1 is included <input type="checkbox"/> Evidence of sources available: 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, e.g. in item 1, if answers to all 4 questions are evident, then a mark of 4 is awarded.

	CRITERIA/ASPECTS	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							
	<input type="checkbox"/> Clear instructions guide users in the answering of questions <input type="checkbox"/> Questions are relevant and mostly provide answers to questions that cannot be found in other sources or that supplement/verify/clarify <input type="checkbox"/> Questions enabled processing in spreadsheet <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) (e.g. created in a word processing program using appropriate principles and techniques such as controls/form fields or created in Google Docs or an editable PDF 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 questions grouped together under relevant headings <input type="checkbox"/> At least 5 questions, excluding biographical data such as gender and age <input type="checkbox"/> Professional formatting and layout (e.g. appropriate word processing techniques)	4	Clearly contains all 4 aspects	Clearly contains 3 of the 4 aspects	Clearly contains 2 of the 4 aspects	Clearly contains 1 of the 4 aspects	No questionnaire OR None of the 4 aspects clearly present	

	CRITERIA/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
3	SPREADSHEET – TECHNICAL Well designed and formatted using appropriate formatting techniques (borders, shading, font alignment, etc.) with good layout and 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 (headings and borders) <input type="checkbox"/> Well formatted with appropriate, consistent formatting (e.g. freeze panes, conditional formatting, absolute cell referencing) <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, excluding biographical data <input type="checkbox"/> Relevant/Appropriate processing and analysis of data/No processing errors/error indicators <input type="checkbox"/> Analysis includes relevant, appropriate data other than the questionnaire/survey data <input type="checkbox"/> Processing (functions) done correctly	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, etc.). 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/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
6	<p>SPREADSHEET – COMPLEXITY</p> <p>The following represent the four different levels of complexity of spreadsheet functions:</p> <p>① Simple functions that only use/include a single cell range, e.g. SUM, MAX, MIN, COUNT, AVERAGE, MODE, MEDIAN, LEN, VALUE or a formula using any of the arithmetic operators (+, −, *, /)</p> <p>② Functions that include a cell range and one other parameter/condition, e.g. 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</p> <p>③ Functions that include a cell range plus two parameters/conditions, e.g. POWER, MID, FIND, COUNTIFS, SUMIFS, 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</p> <p>④ A LOOKUP or nested IF function or functions not in the CAT CAPS curriculum</p> <p><input type="checkbox"/> At least ONE meaningful calculation from level ①.</p> <p><input type="checkbox"/> At least ONE meaningful calculation from level ②.</p> <p><input type="checkbox"/> At least ONE meaningful calculation from level ③.</p> <p><input type="checkbox"/> At least ONE meaningful calculation from level ④.</p> <p>NOTE: Any incorrect/meaningless aspect/function does NOT qualify for consideration.</p> <p>List any function (where applicable) used that is not part of the curriculum</p>	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/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
	TOTAL MARK FOR PHASE 2:	24	MARK OBTAINED					
Comment/Feedback:								
<hr/> <hr/>								
Teacher name: _____ Teacher signature: _____ Date: _____								

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, e.g. in item 1, if answers to all 4 questions are evident, then a mark of 4 is awarded.

REPORT

	CRITERIA/ASPECTS	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 where possible <input type="checkbox"/> Name and surname, name of school and topic added <input type="checkbox"/> Meaningful abstract/extract included (summary of problem/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 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"/> Headings stand out clearly from other (body) text (typically 12–18 pt) <input type="checkbox"/> <u>Styles</u> used to give headings due prominence <input type="checkbox"/> Different levels of headings are clearly distinguished <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/ASPECTS	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 easily distinguished from headings <input type="checkbox"/> All body text is left-aligned/justified	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, e.g. <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 in any way <input type="checkbox"/> Hyperlinks/Bookmarks (other than the table of contents) used appropriately and correctly to navigate to other documents, e.g. spreadsheet <input type="checkbox"/> Hyperlinks to external data/information sources, e.g. spreadsheet 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/ASPECTS	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.							
	<input type="checkbox"/> All sources used are clearly and appropriately acknowledged/citations added for all sources <input type="checkbox"/> Graphics from other sources are clearly and appropriately acknowledged <input type="checkbox"/> Citations present are added correctly <input type="checkbox"/> A minimum of THREE citations added	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							
	<input type="checkbox"/> <u>Automatic</u> reference list/bibliography correctly inserted <input type="checkbox"/> <u>Automatic</u> , appropriate captions correctly inserted for all tables/figures <input type="checkbox"/> <u>Automatic</u> table of figures/diagrams added <input type="checkbox"/> Supporting documentation added as part of document (appendices), clearly distinguishable from main document (e.g. different sections, restarting page numbers, descriptive headers/footers)	4	All 4 aspects clearly present	Only 3 of the 4 aspects clearly present	Only 2 of the 4 aspects clearly present	Only 1 of the 4 aspects clearly present	None of the 4 aspects clearly present OR Not done	
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)?							
	<input type="checkbox"/> Clear overview and focus of the of problem given <input type="checkbox"/> Purpose of the investigation clearly stated <input type="checkbox"/> Clear focus in terms of which aspects were investigated <input type="checkbox"/> No unnecessary, additional information added	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/ASPECTS	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 AND ANALYSIS – 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, etc.) 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 (links to external data) <input type="checkbox"/> Meaningful explanation of how or why the evidence supports the argument/claim and shows 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/ASPECTS	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 <input type="checkbox"/> Conclusion relevant to the focus question in Phase 1	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					

GENERAL

	CRITERIA/ASPECTS	Possible mark	4	3	2	1	0	Mark obtained
13	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 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:	52	MARK OBTAINED				
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Comment/Feedback:

Teacher name: _____ Teacher signature: _____ Date: _____

LEARNER NAME: _____

DATE SUBMITTED: _____

General evaluation based on continuous observation and final impression*NOTE: 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 Notes:	<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 Notes:	<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 Notes:	<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 Notes:	<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) Notes:	<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
1	Find and access data and information	32	
2	Process data and information	24	
3	Present information/solution – Report	48	
3	Present information/solution – General	4	
General	Observations made and overall evaluation	20	
Total:		128	/128
			/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/Feedback:

Teacher name: _____ Teacher signature: _____ Date: _____

2.14 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.
 - If a picture is used, the picture should be appropriate to the topic.
-

Headings

- The font used should be easy to read, e.g. Cambria or Calibri.
 - The font size should vary between 12 pt 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.
-

Analysis and Discussion

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

Paragraph formatting

- Use appropriate and consistent line and paragraph spacing throughout.
 - Ensure there are no 'empty' paragraphs.
 - Ensure that all text in the body is left-aligned.
-

Page layout

- Use word processing functions to add page numbers.
 - Use page/section breaks to start new pages/sections, e.g. *Appendices*.
 - Use bullets and numbering 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.

2.15 ADDENDUM C: Learner declaration of authenticity

Learner name		ID Number	
Grade	12	Year	2020
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):	
<p>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.</p>			
_____		___ / ___ / 2019	
SIGNATURE OF LEARNER		DATE	

2.16 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)	Lange, Gill	Authority	...	<Hyperlink 1>
					Name of website/ web page	The Culture Trip	Currency	...	
					Date created/updated	24 May 2018	Accuracy	...	
					Date accessed	14 February 2020	Objectivity	...	
					URL	https://theculturetrip.com	Coverage	...	
2	Magazine	Author(s)	Fortuna, Cathryn	Authority	...	<Hyperlink 2>
					Title	10 Best volunteer programs in South Africa	Currency	...	
					Date published	1 May 2019	Accuracy	...	
					Publisher	Go Abroad	Objectivity	...	
3
...
...
...
10

2.17 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

3. CONCLUSION

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