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Section E – References & Useful Explanations

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USEFUL EXPLANATIONS

1. **A Learning Programme** specifies the scope of learning and assessment for the relevant grade. It is the plan that ensures the learners achieve the Learning Outcomes as prescribed by the Assessment Standards for a particular grade. The Learning Programme Guidelines assist teachers and other Learning Programme developers to plan and design quality learning, teaching and assessment programmes.
2. **A rubric** is a scoring tool that states the expectations for an assignment by listing the criteria (what counts) and describing levels of quality from excellent to poor (Possible levels of achievement along a continuum, e.g. from poor to excellent). Rubrics can teach as well as evaluate, when used as part of a formative approach to assessment, rubrics can help learners to develop understanding and skill as well as make dependable judgments about the quality of their own work.

REFERENCE BOOKS

Apart from the E-References listed in the next section schools are advised to purchase copies of good reference books for environmental education. For example:

Freshwater life
- *Freshwater Life.* Charles Griffiths, Jenny Day, Mike Picker ISBN 9781775841029

Trees
- *How to identify trees in southern Africa.* Braam van Wyk and Piet van Wyk. ISBN 9781770072404

Birds
- *Newmans Birds of southern Africa* Kenneth Newman ISBN 0869541366

Reptiles and amphibians
- *Field Guide to Snakes and Other Reptiles of Southern Africa.* William R. Branch ISBN 868720403

Mammals
- *Field Guide to Mammals of Southern Africa.* Chris and Mathilda Stuart*. ISBN* 9781770074040

Insects
- *Field Guide to Insects of South Africa* Alan Weaving, Charles Griffiths, Mike Picker ISBN 9781770074040

E-REFERENCES – Hyperlinks

http://csg.dla.gov.za/contact.htm : The Surveyor General's Office with branches in most provinces) provides a national cadastral survey management system that includes 1:50 000 Topographic maps. Refer to the website to find out where you can obtain your local map.

Focus on fieldwork activities

http://www.groundtruth.co.za/projects/minisass.html : The GroundTruth website details the Stream Assessment Scoring System. In addition, if you scroll down to the end of the miniSASS project screen, there are a number of resources that can be downloaded including lesson plans of activities for Grades 5, 7, 9 and 11.

https://www.capetown.gov.za/en/CSRM/Documents/A_practical_field_procedure_for_identification_and_delineati.pdf : An excellent article on the identification of wetlands using, *inter alia,* plant species.

http://sageography.myschoolstuff.co.za/ : A useful site for accessing information on the content of all grade levels plus information regarding teaching and learning methods.

https://www.flickr.com/photos/schoolsriverhealthprogram/ : The Schools River Health Program is an initiative of the University of KwaZulu-Natal. This site shows the excellent work being done by communities around the country and is constantly being updated.

http://www.fao.org/docrep/003/x9419e/x9419e08.htm- Case study: South Africa contains many useful tables regarding water availability and management as well as future projections of usage.
http://www.dwaf.gov.za/iwqs/gis_data/river/rivs500map.html : This is a useful GIS resource that allows you to view the drainage basins of Southern Africa in detail.

http://www.rvatlas.org : The South African Risk and Vulnerability Atlas provides a good explanation of seasonal variations in precipitation and the link between temperature variations, weather systems and changing rainfall patterns.

http://www.enviropaedia.com/topic/default.php?topic_id=240 : *Enviropaedia: Rethinking Reality* – The Water topic is easy to read and has well-presented information on water issues.

http://www.neok12.com/Water-Cycle.htm : The Water Cycle for Kids website has interesting games and activities on the water cycle, including a vocabulary game.

http://www.mitchellteachers.org/WorldHistory/AncientEgyptNearEastUnit/UnderstandingGeographyEffectSettlementActivity.html : A World History website with lesson topics and ideas on human settlement patterns.

http://e-classroom.co.za/measuring-water-usage-grade-4-oasis/ : The e-classroom website has a water use worksheet that could be used with Activity 3 in this unit.

Focus on Wetland Conservation

www.randwater.co.za : Useful information and ideas for educators from Rand Water.

http://www.dwa.gov.za/ : Information from the Department of Water Affairs.

http://www.wetland.org.za/ : Important information on the Mondi Wetlands Programme - a joint Programme of South Africa's two largest NGO conservation organisations, WWF-South Africa and the Wildlife and Environment Society of South Africa (WESSA), together with two corporate sponsors; the Mazda Wildlife Fund and the Mondi Ltd.

http://www.worldwater.org/data.html : An overview of the world's freshwater supply.

http://www.ispotnature.org/communities/southern-africa : Ispot.org is a website where one can upload a photograph of any species and get help in the identification process.

REVISED BLOOM'S TAXONOMY

(After David R. Krathwohl *et al)*

	1. Remember	2. Understand	3. Apply	4. Analyze	5. Evaluate	6. Create
Fact	Remember facts	Understand facts	Apply facts	Analyze using facts, concepts, principles and procedures	Evaluate using facts concepts, principles and procedures	Use facts to create concepts, principles and procedures
Concept or Principle	Remember concepts	Understand concepts	Apply concepts			
Procedure	Remember procedures	Understand procedures	Apply procedures			
Metacognition (Awareness and understanding of one's own thought processes)	Remember strategies	Understand strategies	Apply strategies	Analyze strategies	Evaluate Strategies	Create strategies
	Knowledge		**Skill**	**Ability**		

<u>Making the most of every learning opportunity (Fieldwork in particular!)</u>

"Taxonomy" simply means "classification". Bloom's taxonomy of learning objectives is an attempt to classify forms and levels of learning.

We use the taxonomy as a guide to help us enable effective learning.

- The top row shows that there are six parts to the taxonomy. These show the ways in which we learn best.
- The column to the left shows the outcomes of effective learning.
- The bottom row shows how having knowledge of any field of life, when taken together with the skills used to perform tasks that present themselves, will result in the ability to perform to our best potential.

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VERBATIM EXTRACT FROM THE CAPS CURRICULUM FOR GEOGRAPHY IN THE FET PHASE

These extracts provide the guidelines for developing fieldwork for Grade 10 Learners

Section 2.2 Geography Aims

During Grades 10, 11 and 12 learners are guided towards developing the following knowledge, skills and attitudes:

- Explaining and interpreting both physical and human geographical processes
- Describing and explaining the dynamic interrelationship between the physical and human worlds
- Making and justifying informed decisions and judgements about social and environmental issues

Section 2.2.1 Geography's four Big Ideas

Any topic in Geography can be explored by applying a conceptual framework that embraces Geography's four big Ideas, namely:

- Place
- Spatial processes
- Spatial distribution patterns
- Human and environment interaction

2.2.2 Geographical Skills

The Geography curriculum aims to develop the following subject-specific skills:

- Using verbal, quantitative and symbolic data forms such as text, pictures, graphs tables, diagrams and maps
- Practising field observation and mapping, interviewing people, interpreting sources and working with statistics
- Applying communication, thinking, practical and social skills
- Practising the following specific skills:
    - Identifying questions and issues
    - Collecting and structuring information
    - Processing, interpreting and evaluating data
    - Making decisions and judgements
    - Deciding on a point of view
    - Suggesting solutions to problems
    - Working co-operatively and independently

2.2.3 Attitudes and values

The Geography curriculum aims to foster the following values and attitudes in learners:

- A concern for the sustainable and fair use of resources for the benefit of all
- Recognising the significance of informed decision making
- The application of geographical knowledge and skills in learners' personal lives
- Respect for the rights of all people
- A sense of fairness, sustainability and equality