YOUNGSTERS DIVING INTO OCEAN STUDIES

In the twenty-first century, there are many career options. High school learners know that they have to choose their own careers. Learners select their subjects according to their academic ability as well as interest. By the time learners reach matric, they usually choose their careers by looking at which career paths will give them the greatest opportunity. Nowadays, matric learners have a wider choice of new career options.

Marine Sciences might be one such new option. This field of study is not just about swimming with turtles or tagging great white sharks in the big blue ocean. Cape Town's Two Oceans Aquarium has developed a Marine Sciences matric curriculum to attract young people to careers in this field. This will lead to the protection of invaluable ocean resources and the coastline.

Aquarium education head, Russell Stevens, said he hoped that the new school subject would be piloted at the Lawhill Maritime Centre soon. This curriculum would follow the format of Life Sciences. It will expand on material the aquarium has offered to high school learners and volunteers since 2001.The Two Oceans senior teacher who developed the curriculum with support from Stevens said, 'The ocean is an unexplored area. If we get researchers in there, they will help to ensure the sustainability of its resources.'

This centre's main purpose is to support job creation and employment in South Africa. It provides 15–18-year-old learners with maritime-related knowledge and skills while they are still at school. It will increase their opportunities for post-school employment or admission to related courses at tertiary institutions.

About nine hundred learners have graduated as 'Young Biologists' on completing the five-day course run by the Two Oceans Marine Sciences Academy. Most continued to work as volunteers after their compulsory thirty hours of working. This is the Two Oceans' flagship course targeting Grade 8learners who train with microscopes, make collections and presentations and organise environment clean-ups. The organisers make sure that the course is as hands-on as possible, with various activities and outings included.

Shanet Rutgers, 26, who works with penguins at the aquarium, said, 'The Young Biologists course is very educational and opens doors for young students who would like to work in the wildlife sector. 'After doing it, I went onto study nature conservation and then continued volunteering for as many hours as possible.'

Some of these graduates have progressed to the aquarium's five-day Oceanography course, preparing them for tertiary study. Four have been awarded Marine Sciences and Oceanography bursaries so far.

The aquarium's courses give learners a foundation in Biology, the language of Marine Sciences and knowledge of what this involves. Rashida Manual, a second-year university student in Oceanography and Atmospheric Sciences, said the aquarium's courses had equipped her for her degree. 'I have always been passionate about the ocean and how it works, and this came together for me in the Young Biologists course.'

People have this romantic idea that marine scientists put on scuba gear and go swimming with dolphins, when they are more likely to spend three weeks a year in the ocean and the rest of the time doing research and analysing information.

Young Biologists graduate Bongani Mpele, 26, said he thought marine sciences at school would attract learners. If the curriculum is approved, the aquarium would like to see it offered in about twenty coastal schools, which could also cater for learners from inland. Russell Stevens has met subject advisers, district managers and officials at the Department of Basic Education, as well as the Independent Examinations Board. He has proposed that they manage the matric subject, which would include Biology, Ecology, Oceanography and content on humans and the ocean.

Developing this career field would complement the government's Operation Phakisa, which aims to reduce unemployment among people. This career field is intended to maximise the potential of the coast and ocean for job creation and sustainability, said Stevens.

[Adapted from Sunday Times, 5 February 2017]

1.1 Refer to paragraph 1.

1.1.1 Name TWO factors that influence a learner's career choice. (2)

1.1.2 What advantage do matric learners have regarding career choices? (1)

1.2 Why was the Marine Sciences curriculum developed? Give TWO reasons. (2)

1.3 Refer to paragraph 3.

1.3.1 Quote ONE word to prove that Marine Sciences has not been introduced at all schools. (1)

1.3.2 How is the curriculum for Marine Sciences similar to that of Life Sciences? (1)

1.3.3 Using your own words, explain what is meant by 'the ocean is an unexplored area'. (1)

1.4 Refer to paragraph 5.

1.4.1 Explain why 'Young Biologists' is written in inverted commas. (2)

1.4.2 Why is the following statement FALSE? The 'Young Biologists' were paid during their training. (1)

1.4.3 Choose the correct answer to complete the following sentence: The words 'flagship course' in line 27 mean that the course is about …

A studying flags.

B being impressive.

C studying ships.

D being supportive. (1)

1.4.4 Why is it important for the course to be 'as hands-on as possible'? (2)

1.5 Refer to paragraph 6. What do the words, 'continued volunteering' suggest about Shanet Rutgers? (1)

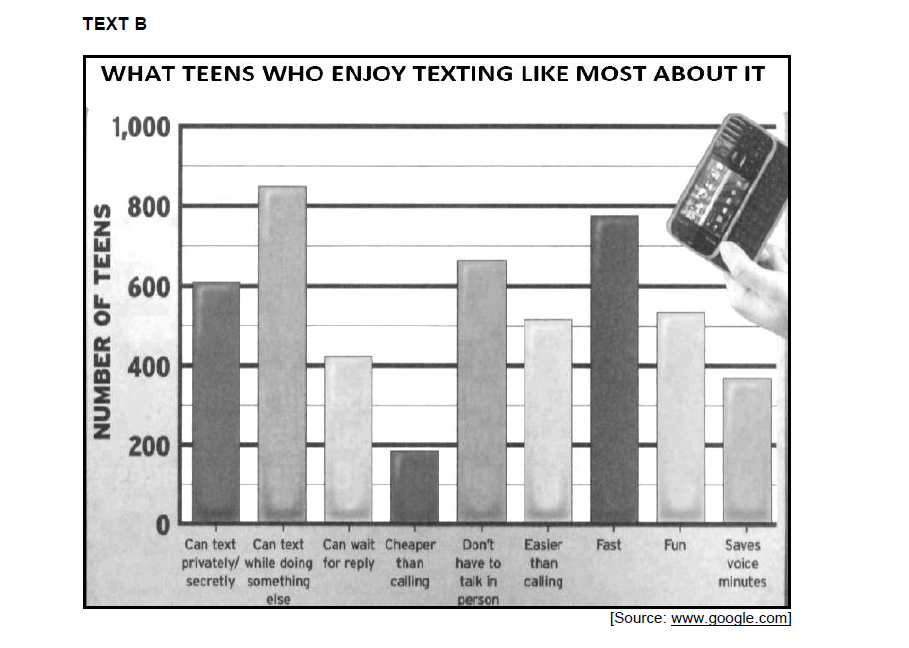
1.6 Explain why the writer has included the following statement: 'Four have been awarded Marine Sciences and Oceanography bursaries so far' (paragraph 7). (2)

1.7 Do marine scientists spend most of their time in the ocean? Give a reason for your answer. (2)

1.8 Give a reason why Marine Sciences should be offered at coastal schools if the curriculum is approved. (1)

1.9 In your view, will this article succeed in motivating learners to study Marine Sciences? Substantiate your answer. (2)

1.10 Discuss the suitability of the title, YOUNGSTERS DIVING INTO OCEAN STUDIES. (2)



Refer to the graph above (TEXT B).

1.11 Complete the following sentence by filling in the missing word. 'Teens' is the abbreviated form of the word ... (1)

1.12 According to the graph, does the cost of making calls influence most teens to text? Give a reason for your answer. (1)

1.13 What does the tallest bar in the graph suggest about teens? (2)

1.14 In your view, is the inclusion of an image of a cell phone suitable in this visual? Substantiate your answer. (2)

TOTAL SECTION A: 30