

Thrive 2019 | Study Article 1:

Biodiversity | Publication Friday April 12th

Welcome to the first of five study articles on Biodiversity for Thrive's 2019 inter-schools Enviro Quiz and Art Competition, which is taking place on Friday September 6th at Kronendal Primary School, Hout Bay. All primary and high schools are invited to register to participate by emailing enviroquizart@thrive.org.za. Entry is free.



So what do we mean by Biodiversity and why does it matter?

Biodiversity consists of the variety of **all living organisms** and the **communities and ecosystems** of which they are part. It is the “**natural wealth**” of the earth (for example, the air we breathe, the rivers, coastlines, wetlands, the mountains, dunes, top soil and the minerals, plants, insects and animals etc) and the “services” nature provides. Collectively, these supply all our food and other natural

Please see the link to the Sentinel Article:

<https://www.sentinelnews.co.za/news/enviro-quiz-and-art-competition-21003179>



resources. It is the **web of life** on which we all depend, and it is intricately balanced in ways we humans are really only just beginning to understand. Scientists, environmentalists, conservationists, urban planners and some in the business community are beginning to share their knowledge and come to a more common understanding as to the value of Biodiversity, which has until fairly recently, been largely taken for granted.

Biodiversity is more than just a list of plants and animals, but a series of critical, life-supporting relationships in a complex web. When one part weakens or disappears, every other part of this complex web is affected, and diminishes in some way. Humans are still learning – all the time – as to how this web is balanced and how it can restore if disturbed. The Cape Floral Kingdom is one of **the global biodiversity hotspots**, with one of the highest densities of plant species. (There are over 9,000 different plant species here!) Cape Town is in the heart of this Cape Floral Kingdom, and has the potential to be central to world learning and research into the balance between human urbanisation and biodiversity.

So why does it matter? Why should you care about Biodiversity? Simply put, if we don't look after our extended home, our planet Earth, the home we share with all other living organisms, then essentially we risk putting these natural ecosystems and structures out of balance, without truly understanding the consequences or outcomes of what might happen. Biodiversity is the foundation for a healthy planet and healthy people – diverse ecosystems are better able to recover from stress such as drought. You may have heard the phrases “Climate Change”, “Sustainability”, “United Nation's Sustainable Goals”, and “Bee Colony Collapse”, amongst others, concerns that are increasingly gaining attention, as we begin to better understand the results of reduced biodiversity. The increasing rate of loss of species (we are losing some 200 species per day) is known as the 6th Mass Extinction.

So what can you do? First of all, ensure you understand why Biodiversity is important and how each and every one of us can take small, daily actions which collectively will have a big impact on protecting Biodiversity. There is much you can do in your own home, school and community, and the later articles (Study Articles 2, 3, 4 and 5) will give you many ideas for action. A common call to action is “There is no Planet B”, and it invites us all to understand Biodiversity better and to make an effort – however small – to slow this pace of extinction. Most recently, this call to “do something” was brought into the spotlight by the Swedish schoolgirl, Greta Thunberg, famous for her Friday striking from school. On March 15th, a global youth protest was organised with around 1 million people in ca. 130 countries, advocating for more global protection of our shared, natural resources. Are you ready to be informed and to get involved?

QUESTIONS

1. How many species are estimated to be lost (that is, are being made extinct) each day?
2. How many plant species are there in the Cape Flora Kingdom?
3. Name 5 different aspects of the “natural wealth” of Biodiversity?
4. Name 3 different stakeholders, or groups of people, who need to come together to help protect our Biodiversity?
5. Name 3 examples of current issues that are gaining attention, in our efforts to protect our Biodiversity?
6. How many countries participated in the March 15th Youth Protest?
7. Why do we need to protect our shared home, planet Earth?
8. What are some of the benefits that Biodiversity offers us humans?
9. Who is the Swedish school girl who has recently drawn attention to the plight of Biodiversity and climate change?
10. What are the four key areas of Ecosystem Services that a healthy environment provides?

(See WWF diagram below)

