

Biodiversity in Science fiction world: Avatar and Middle earth linked to the geophysical conditions of their environment

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Most of the first academic year in French high school is dedicated to the study of the origin of Life, and the analysis and comparison of the physical parameters – such as the distance from the sun, the presence of an atmosphere or water - that could explain life on Earth and on the other planets of our solar system and beyond. This study leads to the notion of planetary habitability - which is very important to our pupils – and the role of chance in the development of life. The history of our planet is tied into that of the whole universe.

In parallel, in our European section, my colleague (English teacher) and I decided to develop this topic in an original way: the presentation and the description of fictional forms of life: species from two of the major works in Science fiction: Avatar (James Cameron) with the creatures living on Pandora and The Lord of the Rings (J R R Tolkien) with the creatures living on Middle Earth.

While some pupils realized posters presenting two species of their choice, others had to describe the environment of these creatures.

In this way, the pupils use in a different way concepts they studied in the regular class. Concepts such as habitability, biodiversity, lineage between species.

The work ends with the oral presentation of their poster starting with the group that described the environment. Then, all these posters are hung in our class to satisfy the curiosity of other pupils but also to enhance their work.