



Infusing Earth Science Concepts Into a Language Arts Unit On The *Lord of the Rings*

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Abstract

Many high school students fail to see how science is relevant to their everyday lives and therefore are not interested in pursuing science-related careers. This apathy towards science is creating a gap between the need for qualified workers in STEM fields and the number of qualified applicants. One way to address this need is to develop science learning experiences that utilize student interests and show connections between science content and topics of interest to our students.

Besides interest in science, many schools do not explicitly offer earth science courses. Instead, they attempt to distribute the earth science standards in the NGSS to other courses. This distributive approach nearly always leads to gaps in student understanding or critical earth Science content.

One way to provide relevance in science lessons is to infuse science topics into other classroom content areas such as language arts and social studies. The lessons developed in this project are designed to be used in a high school language arts course as a way of infusing Earth science content into a non-science course. The lessons use the fictional world of Middle earth from *The Lord of the Rings* as a foundation for teaching content in geology and meteorology.

The lessons were taught in a 10th grade language arts course, and student assessments indicate that pairing the science content with discussions of the readings improved student science content knowledge but also improved student motivation towards the reading material.

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Chapter 1: Introduction

The *Lord of the Rings* (Tolkein, 1954) is a timeless classic that is enjoyed by many in the 21st Century. The tales told within the pages of these books take place within a setting that is believable and realistic. Given this widespread interest in the books and the rich descriptions of Middle earth, it is possible to connect the book to several Earth Science concepts.