



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

Non-Thesis Curriculum Development Project for the

Master of Arts in Science Education

University of Northern Iowa

Presented by

John Ronald Reuel Tolkien

Spring 2015

This Paper by: John Ronald Reuel Tolkien

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

has been approved as meeting the non-thesis requirement for the
Degree of Master of Arts

Date: 

Dr. Gandalf the Grey, Advisor

Date:

Dr. Frodo Baggins, Outside Reader

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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Acknowledgements

I have had tremendous support from many people in my personal, professional, and educational life. A special “thank you” goes out to each of the following:

To my wife Edith Mary for being patient with me while I wrote and my son Christopher for pointing out some of the errors in the book.

To my advisor, Dr. Grey, who encouraged me to begin this project. I couldn’t have completed it without your persistent encouragement and suggestions to “dig a bit deeper”.

The Science Education and Earth Science Department professors for teaching me so much and helping me to grow in so many ways. I am a better teacher because of you.

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.