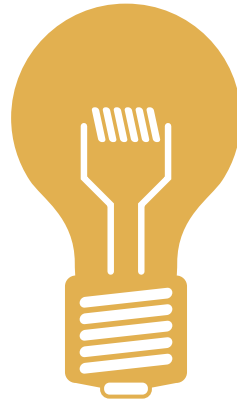# PHYSICAL SCIENCE EXPLORED

STUDENT GUIDEBOOK

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WELCOME TO PHYSICAL SCIENCE EXPLORED

This Student Guidebook was designed for students in the Physical Science Explored online course. Simply follow along with the weekly lecture videos and fill in the blanks as you go. Sections for extra notes have been provided as well: use these to draw helpful diagrams or take extra notes you find particularly useful during the lecture. At the beginning of each lesson, you'll find a list of terms that might be unfamiliar to you. Be sure to familiarize yourself with these terms and use them as you spend time studying each week.

Along the way, you'll also find study guides for the quarterly exams. Each exam covers material from that quarter only, and these study guides will provide you with terms, questions, and concepts you should be familiar with before taking your exams.

We're excited to have you join the adventure as we explore the world God made!

We'll see you inside the course!

Trisha Gilkerson

LESSON 1

INTRODUCTION TO PHYSICAL SCIENCE & THE SCIENTIFIC METHOD

In the beginning, God created the heavens and the earth. From the tiniest particle to the tallest mountain, He created it all using only His word. In this course, you will learn how God's creation works, what it's made up of, and how it all works together. This lesson introduces you to physical science and the two main branches of this discipline. In addition, we talk about an important process we use to study science in this course and beyond: the scientific method.

Vocabulary

Controlled experiment	Independent variable	Qualitative data
Dependent variable	Matter	Scientific method
Energy	Physical science	
Hypothesis	Quantitative data	

OUTLINE & NOTES
LESSON 1: INTRODUCTION TO PHYSICAL SCIENCE & THE SCIENTIFIC METHOD

I. The Study of Natural Sciences

    A. _____ science: study of _____

    B. _____ science: study of the _____

    C. _____ science: study of _____ and _____

       1. _____ : study of _____ and its _____

       2. _____ : study of _____ and _____

II. The Scientific Method: How We Study Science

    A. Many _____ scientists use to discover

    _____

    B. Steps to the scientific method

       1. State your _____ , the _____ you want to answer

       2. _____ and collect _____

       3. _____ : an educated guess

       4. Test your hypothesis with a _____

         a. _____ are factors that can _____ the _____ of

         the experiment and should be kept _____ except _____

         b. Types of variables:

           (1) _____ variable: the variable _____ in an

           experiment

           (2) _____ variable: the variable that _____ as a

           _____ of changing the _____

       5. _____ : record observations and collect data

         a. _____ data: _____ , anything you experience with your

         five senses

b. _____ data: involves _____ or _____

6. _____

    a. _____ with the numbers you have

    b. Consider if the _____ of your experiment _____ your

       _____ or not

NOTES