

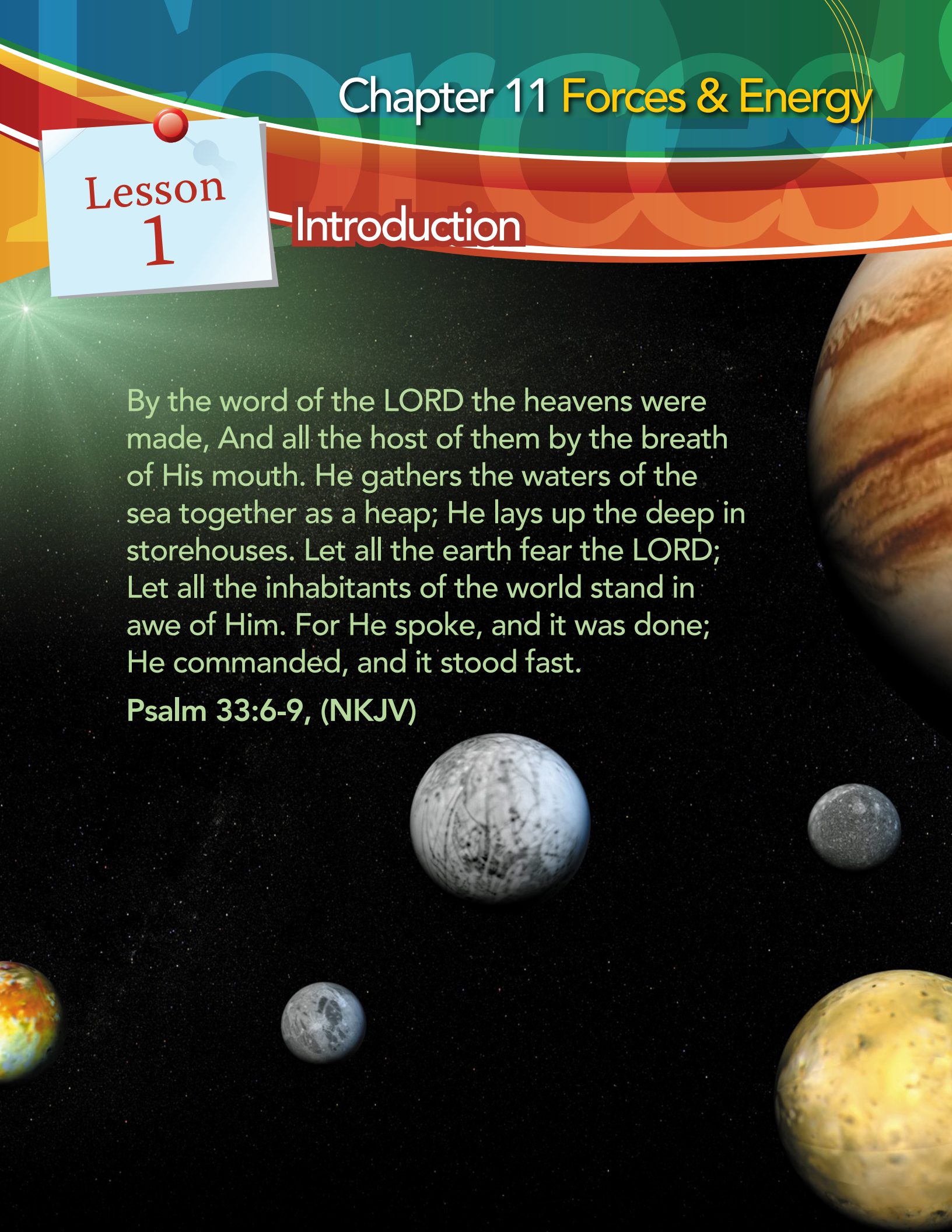
# Chapter 11 Forces & Energy

## Lesson 1

### Introduction

By the word of the LORD the heavens were made, And all the host of them by the breath of His mouth. He gathers the waters of the sea together as a heap; He lays up the deep in storehouses. Let all the earth fear the LORD; Let all the inhabitants of the world stand in awe of Him. For He spoke, and it was done; He commanded, and it stood fast.

Psalm 33:6-9, (NKJV)



# Chapter 11 Forces & Energy

## Lesson 1

## Vocabulary

**Fission**—the splitting of a single atom

**Gravity**—the force of an object that pulls all objects toward its center

**Potential energy**—a reserve of energy in an object, because of its position, its condition, or its chemical make-up

**Nuclear energy**—the energy released by fusion or fission of atoms

**Force**—an energy that pushes or pulls an object

**Electricity**—an interaction between opposing electrical charges, for instance positive and negative

**Magnetism**—a force that works on certain metals, like iron and nickel

**Motion**—the changing of position, caused by a force

**Kinetic energy**—potential energy that has become motion or work

**Fusion**—the forcing of two atoms together

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## Vocabulary Matching Answer Key

Letter	Definition	Word
H	1. the changing of position, caused by a force	A. fission
E	2. an energy that pushes or pulls an object	B. gravity
F	3. an interaction between opposing electrical charges, for instance positive and negative	C. potential energy
B	4. the force of an object that pulls all objects toward its center	D. nuclear energy
G	5. a force that works on certain metals, like iron and nickel	E. force
I	6. potential energy that has become motion or work	F. electricity
C	7. a reserve of energy in an object, because of its position, its condition, or its chemical make-up	G. magnetism
D	8. the energy released by fusion or fission of atoms	H. motion
J	9. the forcing of two atoms together	I. kinetic energy
A	10. the splitting of a single atom	J. fusion



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## Lesson 1

## Force and Motion

Speed is how fast an object is moving. It is the distance traveled divided by the time it took. Speed doesn't tell us which direction the object is traveling, though. Velocity is the rate of motion in a specific direction. It is speed with a direction.



$$\text{Speed} = \frac{\text{Distance}}{\text{Time}}$$

# Chapter 11 Forces & Energy

## Lesson 9

## Concept Map

