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## Understanding Life Systems

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Students will focus on investigating the basic needs of animals, examining their similarities and differences, and learning about their general characteristics. The growth and changes in specific animals will also be discussed. Moreover, students will study the impacts that human activities have on animals as well as how these impacts affect their development in the environment. They will also look at the importance of protecting animals and their habitats.

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## Understanding Structures and Mechanisms

Students will learn to describe positions of objects using position words. They will learn that there are different ways to move an object which change its position. Furthermore, they will investigate the six basic types of simple machines – lever, inclined plane, pulley, wheel and axle, screw, and wedge – and how they make our lives easier. They will also discover that simple machines can work together to help us do work more efficiently.

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## Section 3

### Understanding Matter and Energy

Students will discover the unique properties of liquids and solids, and understand that some are from nature and some are human-made. They will investigate how liquids and solids are related and how they interact with each other. In addition, they will explore the changes of state of liquids and solids through melting and freezing. They will also learn to read hazard symbols on containers of liquids and solids.

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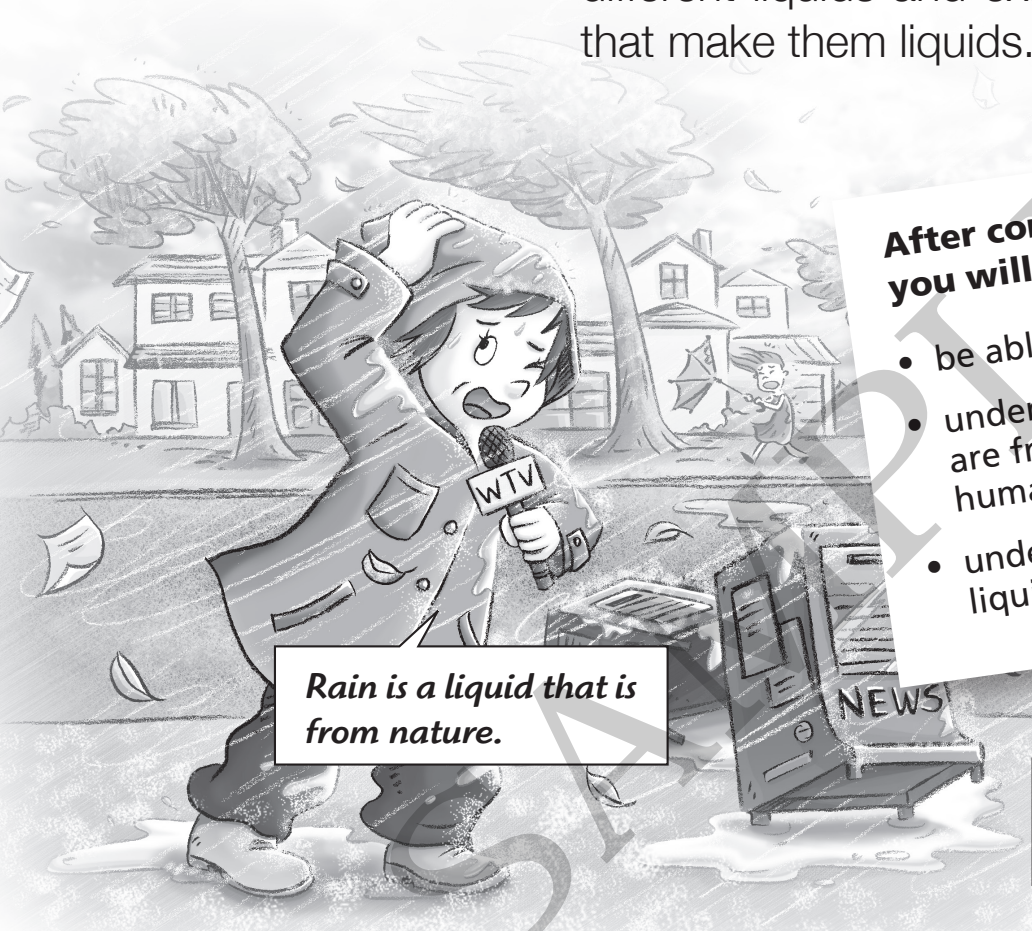
## Understanding Earth and Space Systems

Students will learn about air and its properties, as well as the importance of air in our environment. Students will also learn about the properties of water and the different forms of water in the environment. Additionally, they will discover what our water sources are and how water is used. They will understand that all living things need air and water to survive, and learn about the impacts of human activities on the quality of air and water.

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# 1 Liquids

Some liquids are from nature and some are human-made. In this unit, you will identify different liquids and examine the properties that make them liquids.



*Rain is a liquid that is from nature.*

**After completing this unit, you will**

- be able to identify liquids.
- understand that some liquids are from nature and some are human-made.
- understand the properties of liquids.

*The egg flows out of its shell.*

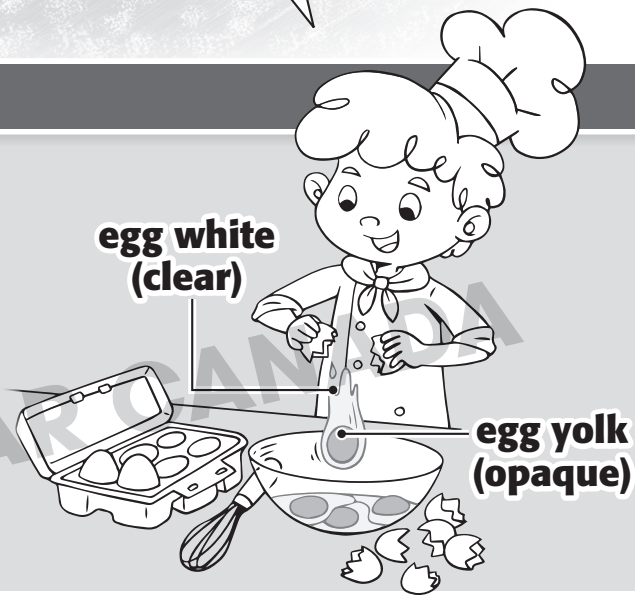
## Vocabulary

**liquid:** can flow; can be poured; takes the shape of its container

**clear:** easy to see through

**opaque:** impossible to see through

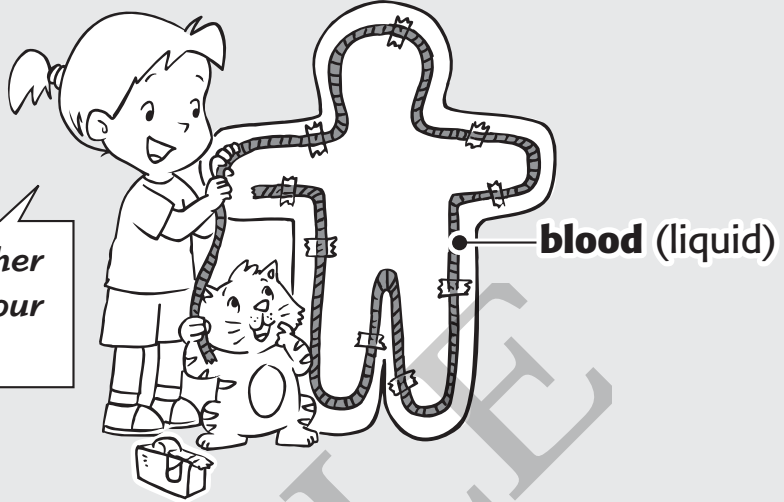
**property:** quality of something



## Extension

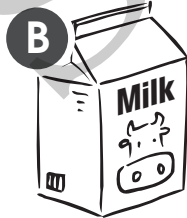
Within our bodies, there is a lot of liquid! Our blood is liquid, and its property of being able to flow helps move nutrients and oxygen through our bodies.

Can you think of other examples of liquids in our bodies?

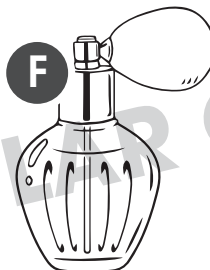


**A. Look at the liquids. Determine whether they are from nature or are human-made. Write the letters.**

### Liquids



From Nature



Human-made



## Experiment

### Introduction

One of the properties that all liquids have is that they can flow. But do all liquids flow easily, or do some flow slower than others?



*Mom, why is it that some condiments come in squeeze bottles and some don't?*



### Hypothesis

Some liquids flow fast and some flow slower.

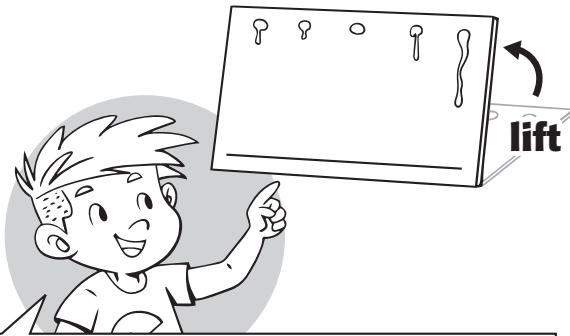
#### Steps

1. Draw a straight line across the cardboard near one end. This will be the finish line.
2. Pour one teaspoon of each liquid on the cardboard at the other end.

#### Materials

- **a piece of cardboard**
- **a teaspoon**
- **a pen**
- **ketchup**
- **honey**
- **olive oil**
- **maple syrup**
- **water**

3. Lift that end of the cardboard and see which liquid reaches the finish line first.



*Do this close to a sink to avoid mess.*

4. Record your result below.

**Result**

Rank the liquids from the one that flowed fastest (1) to the one that flowed slowest (5).



\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**Conclusion**

The hypothesis was: \_\_\_\_\_  
 \_\_\_\_\_

My experiment \_\_\_\_\_ the hypothesis. supported/did not support