

# Solids and Liquids Concept Storyline

## Unifying Concept

Solids and liquids are two states of matter. Each state has different properties.

## Unit Concept

Solids and liquids can be described and classified on the basis of their properties.

## Grade-Level Concept

Solids and liquids have unique properties. Testing can identify properties that cannot be detected by the senses alone.

### Subconcept 1

**Some properties of solids and liquids can be identified by careful observation with the senses alone.**

Lesson 1: Pre-Unit Assessment: Observing and Describing Two Solids

*Students examine a spoon and a steel ball. They share what they know and would like to know about solids.*

Lesson 2: Observing Properties  
*Students classify 20 solid objects on the basis of their observable properties.*

Lesson 3: Comparing Solids that Roll with Solids that Stack  
*Students describe and sort solids on the basis of their shapes.*

Lesson 4: Rolling Solids  
*Students examine the factors that affect how far a solid will roll.*

Lesson 5: Testing the Hardness of Solids  
*Students use their sense of touch to explore the property of hardness.*

### Subconcept 2

**Some properties of solids and liquids can be identified only by testing.**

Lesson 6: Investigating Solids and Water

*Students perform a test to determine which solids float and which solids sink.*

Lesson 7: Testing Solids with a Magnet

*Students identify similarities and differences between the solids that are and are not attracted to a magnet.*

Lesson 8: Guess My Reason

*Students group solid objects on the basis of a property of their choice.*

Lesson 9: Investigating Two New Solids

*Students apply what they have learned to identify the properties of a button and a sponge.*

### Subconcept 3

**Liquids have unique properties that may be identified by the senses and testing.**

Lesson 10: Observing and Describing Two Liquids  
*Students describe water and liquid glue. They discuss what they know and would like to know about liquids.*

Lesson 11: Investigating Liquids

*Students investigate how four liquids feel and how they look under magnification.*

Lesson 12: Flowing Liquids

*Students discover that liquids have no definite shape and that they flow at different rates.*

Lesson 13: Drop Races

*Students explore viscosity.*

Lesson 14: Mixing Liquids

*Students explore miscibility.*

Lesson 15: Investigating Two New Liquids

*Students apply what they have learned to identify the properties of two liquids.*

### Subconcept 4

**Solids and liquids have both similarities and differences.**

Lesson 16: Comparing Solids and Liquids

*Students summarize what they have learned about the similarities and differences between solids and liquids.*

Lesson 17: Post-Unit

Assessment: Sharing What We Know about Solids and Liquids

*Students discuss and reflect on what they have learned.*