

Wood Conceptual Story

FOSS - Kindergarten

K-12 Unifying Concept: Our physical world is made of substances, materials, and objects that can be identified by their unique properties, and is organized into systems that are interconnected.

Kindergarten Grade Level Concept: Matter has observable properties by which it can be described.

Sub-concept: There are different types of wood with properties that are alike and different.

**Lesson 1.1
Introduction to Wood Samples**
Students freely explore five uniform pieces of wood and discuss their properties.

**Lesson 1.2
Wood Hunt**
Students conduct a wood hunt, matching their sample with ones hidden around the room. They label all the things in the room made of wood.

**Lesson 1.3
Wood and Water**
Students investigate how water interacts with particleboard and redwood samples.

**Lesson 1.4
Sink the Pine and Plywood**
Students freely explore how to sink pine and plywood samples using paper clips and quantify their results.

**Lesson 1.5
Sinking Investigations**
Students systematically investigate how many paper clips it takes to sink redwood and particleboard samples and graph the results.

Properties of substances
Properties of substances

Properties of substances
Conducting investigations
Evidence and explanation

Properties of substances
Conducting investigations
Evidence and explanation

Properties of substances
Conducting investigations
Evidence and explanation

Sub-concept: Different woods have properties that cause them to interact with water in different ways.

Sub-concept: Wood can be physically changed by sanding or planing into smaller pieces.

**Lesson 2.1
Sanding Wood**
Students use sandpaper to physically change the shape of basswood.

**Lesson 2.2
Sawdust and Shavings**
Students conduct an investigation to discover how sawdust and wood shavings interact in water.

**Lesson 2.3
Making Sawdust Wood**
Students simulate the manufacture of particleboard by combining sawdust and a cornstarch matrix.

**Lesson 2.4
Making Sandwich Wood**
Students simulate the manufacture of plywood by gluing together thin pieces of wood.

**Lesson 2.5
Nailing**
Students are introduced to the woodworking skill of nailing in order to join together two pieces of wood.

**Lesson 2.6
Staining**
Students change the appearance of wood by staining it using tempera paint.

**Lesson 2.7
Wood Sculpture**
Students use their woodworking skills to fashion a sculpture using wood, glue, and nails, and finish the project with stain or paint.

Sub-concept: Some wood products are manufactured from smaller wood materials through laminating or gluing.

Sub-concept: Wood can be transformed into useful and artful products by using woodworking tools and skills.

Structure of matter
Physical change
Structure of matter
Physical change
Conducting investigations
Evidence and explanation

System
Structure of matter
Physical change

System
Structure of matter
Physical change

Physical change

Physical change

System
Physical change