


**GRADE 1 - 6 LESSON PLAN
WOOD ROBOTS – WOODWORKING**

<p>Lesson Plan Information</p> <p>Grade: 1 - 6</p> <p>Subject: Arts (Visual Arts)</p> <p>Science and Technology (Understanding Structures and Mechanisms)</p> <p>Duration: 2 hours</p>	
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<p>Lesson Plan Overview and Objectives</p> <p>Using sculptural materials, students will design and build robots (wood robots) based on their understanding of structures and mechanisms. They will discover how structures and mechanisms are built, and how they withstand force. They will learn how the purpose of structures and their mechanisms can influence the final design. Through their design, they will demonstrate an understanding of the elements and principles of design.</p> <p>Students will learn basic woodworking techniques. They will learn about different types of sculptural/building materials and how they can be used to build their structures.</p>
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AT QUEEN ELIZABETH PARK COMMUNITY AND CULTURAL CENTRE

<p>Wood Robots – Woodworking inspired by Pablo Picasso</p>	
<p>Materials</p>	<p>Images of Pablo Picasso’s wood sculptures of animals and people, pieces of wood in various sizes and shapes, dowels, hot glue gun, hot glue stick, handsaw, hand drill, sand paper, screwdrivers</p>
<p>Introduction Inspiration</p>	<p>Students explore and discuss assemblages made with found materials, mostly wood. They explore Pablo Picasso’s structures using elements of design and principles of design.</p> <p>Discuss types of wood and the trees that each comes from.</p> <p>Discuss personal approaches and reflections.</p> <p>Guiding Questions</p> <ul style="list-style-type: none"> - What kinds of lines or shapes can you find in the structures? - What are the proportions of the shapes to the whole? - What colours does the artist use? <p>Art Terms to be Covered</p> <ul style="list-style-type: none"> - Elements of design - Principles of design (proportion)

	<ul style="list-style-type: none"> - Design (composition) - Dimension - Geometric shape - Sculpture - Found object sculpture - Free-standing sculpture
Demonstration Activity	<p>Planning – Idea Sketch Students will create an idea sketch of a wobot they would like to make. Using shape templates provided by QEP as a guiding resource, students will look through bins of scrap wood for inspiration in preparing their robot figure.</p> <p>Demonstration by the Woodworking Instructor The woodworking instructor will explain different types and characteristics of building materials, and how they can be used to build a structure. The instructor will demonstrate woodworking techniques (sawing, drilling, sanding, gluing).</p> <p>Building/Woodworking Based on the instruction and demonstration, students will build their wobot using a variety of wood scraps, nails, screws, hooks and various metal hardware. They will create families and villages of wobots, working together to produce them.</p>

FOR TEACHER BACK AT SCHOOL – POST-VISIT ACTIVITIES

Post-Visit Activity	Artist reflection questions, drawing (optional)
Materials	Pencil, eraser, paper, crayon
<p>Artist Reflection Students describe the wobots they have made – what is special about them? How has the understanding of a structures’ mechanisms influenced the creation of their wobots? What do they like best about their finished work and why?</p> <p>Drawing – Designing a House Students draw homes based on the wobots that they have created. What kind of houses or buildings do they want to design? When designing, ask students to think about the purpose of their structures and how it will influence design and materials.</p> <p>Resources <i>Picasso. Sculpture. Exhibition Catalogue.</i> Museum of Modern Art, November 2015 <i>Through the Eyes of Picasso: Face to Face with African and Oceanic Art,</i> Yves Le Fur, 2017 A Wobots Christmas, 2003, 60” https://www.youtube.com/watch?v=C3pUikyuArw</p>	

FOR TEACHER REFERENCE ONLY – CURRICULUM CONNECTIONS**Cross Curricular and Integrated Learning** | Science and Technology

Science and Technology (Understanding structures and mechanisms)

Assemblage of Found Objects*Materials:*

Cardboard (half a box or a flat piece to mount to the wall)

Reusable materials like cardboard forms from inside display boxes (plastic does not hold the paint well)

Tempera or Acrylic paint

Brushes

Glue guns

Scissors

Instructions

Cut a cardboard box in half to use as the frame, or cut a large flat piece of cardboard for back support. Arrange objects aesthetically inside the box or on the square (according to a compositional strategy that is design-sensitive). Cut pieces to fit. Think about what the objects were before and how they could be recognized or disguised depending on how they are used in your piece. (Familiar or made strange). Glue pieces. Paint the entire sculpture black (or in the monochrome of your choice). You can assemble them all together as a 3D sculptural piece, or affix them to the wall. Nevelson did both in her work.

Resources

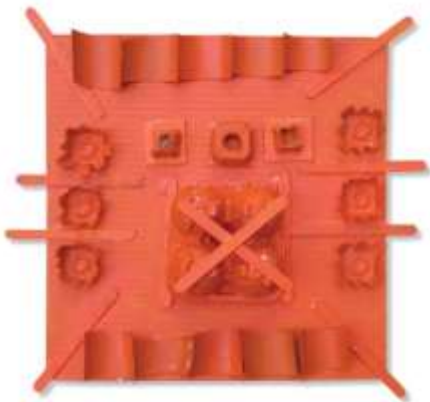
The Sculpture of Louise Nevelson. Constructing a Legend, Arthur P. Danto, Jewish Museum, 2009 (coffee table book)

Louise Nevelson, Michael Cain, 1989 (children's book)

Breaking Tradition. The Story of Louise Nevelson, Natalie S. Bober, 1984 (children's book)

American Architecture Now Louise Nevelson, Diana MacKown, 1976, 29",

<https://www.youtube.com/watch?v=SRTLKcwE2ik>



Curriculum Expectations**The Arts (Visual Art)**

Fundamental Concepts:

Elements of Design (line, shape and form, space, colour, texture, value)

Principles of Design

Grade 1: Contrast

Grade 2: Repetition and Rhythm

Grade 3: Variety

Grade 4: Emphasis

Grade 5: Proportion

Grade 6: Balance

Science and Technology (Understanding structures and mechanisms)

Topic Grade 1: Materials, Objects and Everyday Structures

Topic Grade 2: Movement

Topic Grade 3: Strong and Stable Structures

Topic Grade 4: Pulleys and Gears

Topic Grade 5: Forces Acting on Structures and Mechanisms