

# Shape Shifters ~ Trees and the Environment

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Suggested Grade Level(s) 3-5

Suggested Length of Class Time Three sessions: discussion/brainstorming, constructing, and creative writing

Subject Areas Art, Science, and Language Arts

## Rationale

A tree doesn't get to choose its environment. Trees have long lives and they are exposed to many different elements. The shape and character of the tree tells a story about what kind of interactions it's had with the forces around it. For instance, look at the painting "White Pine" by A.J. Casson. The pine tree clinging to the edge of a rock is stunted and bent by poor nutrients and exposure to strong winds.

Students will construct their own three dimensional tree with a range of gathered/found materials. Once their tree is built, the students will imagine their tree's unique history and write its story, detailing events and forces that have shaped its growth.

## Logistics

*Classroom setup* – Students will work individually at their desk with gathered materials they've chosen from a central station of supplies.

## Materials –

- Base– cardboard, masonite, rock, sponge, styrofoam, etc.
- Roots-wire, pipe cleaner, twist ties, plasticine
- Trunk and branches– wire, pipe cleaners, interlocking toilet paper tubes, found branches, driftwood, grape stems, straw or wood pieces, egg cartons, empty spools, chopsticks, popsicle sticks
- Foliage- tissue paper, recycled or shredded paper, foam sheets, felt, anything in multiples that resembles leaves or needles (bread tags, shredded paper, candy wrappers), fabric or any material that creates a canopy (something that drapes over)
- Adhesives (tape, glue, elastics, string, etc.)
- Scissors

## Suggested resources/images –

- Arboreteum show at AGNS;
- Google: "Trees in Art" or "Photos of windswept trees, crooked trees, dwarf trees", etc.;
- Group of Seven Images such as: A.J. Casson's "White Pine",
- Google Tom Thompson "trees";
- Emily Carr – Trees in the Sky <http://www.ago.net/agoid107982>

\* Here are some tree sculptures searches that might inspire students: Tree sculpture by Alastair Heseltine <http://www.alastairheseltine.com/>; Living tree sculptures by Patrick Dougherty; Pieces Of A Tree Stored In Jars Naoko Ito (inspiring!)

## Suggested Outcomes

### *Students will*

- Demonstrate sensitivity toward the natural and built environment
- Explore the science and art of the world of trees and habitats
- Explore and manipulate a range of materials

- Demonstrate an ability to express oneself
- Write a creative, descriptive story or poem based on reflection of research

Introduction: Begin with a general discussion about trees with attention to the idea of trees living a long life, rooted to a specific environment. Pose questions that will inform the construction of the tree sculptures. Share visual examples from nature and art.

### Suggestions for Teaching and Learning

#### *Day One*

1. Guide with questions such as the following:

-*What are the parts of a tree?*

- Roots
- Trunk
- Branches
- Bark
- Leaves/needles
- Seeds
- Flowers/blossoms
- Buds
- Thorns
- Twigs
- Fruits and nuts

*What does a tree need in order to grow? Brainstorm elements in the environment that would affect how a tree grows. Some ideas are:*

- the elements: wind, rain, sea, snow, salt water, temperature
- geography (ie. proximity to the sea)
- lightning
- fire
- human intervention: pruning, power lines, grafting
- soil depth (long and deep soil for roots, roots clinging to rock faces due to lack of soil); poor or rich soil
- proximity to other trees, being crowded or having lots of space
- burls-as a result of some form of stress such as mold or bug infestations
- drought (trees, such as cacti, that need to conserve water)
- dwarfed by harsh conditions
- animals (grazing or building homes, looking for food (woodpecker)
- trees blown over, caught on another tree and continues to grow (diversity of positions)
- gravity -weight – some years, trees have more cones, snow

2. Find images of trees in nature and art. Invite students to consider how they might come to look that way. In your findings, discuss the symmetry of well-shaped tree vs. dramatic, unique shape. Which is more memorable?

3. Introduce the sculpture project. Discuss potential materials and invite students to gather from home materials that can be used to create their individual tree.

#### *Day Two*

1. With students, explore the wide range of collected materials. Discuss the challenges in using those materials (How will you join different elements together?) and avoid frustrations by problem solving as a group. (ie. If a student is trying to stand up a tree trunk, try plasticine as a base.)

2. Ensure that students have materials organized.

Each student should have some sort of base, and materials to make each part of the tree. The base should be integral to the design of the project. Consider that choosing a rock, or sponge, as the base will impact the way the tree develops. The base is meant to be as expressive as the tree. The story starts to form when students start to understand or make the connection between the tree and its immediate environment.

## 2. Build tree sculptures!

Encourage students to respond to the materials and remain open to changes in the forms that develop as they are working. Encourage students to work boldly and exaggerate features (ie. broken limbs, twists and gnarls). Let the stories unfold as your students build, leaving behind the idea of a perfectly symmetrical tree.

### *Day Three*

1. With their tree sculptures in front of them, have students write a creative/reflective piece that details how the tree got its character and shape. Consider making a list of descriptive words on the board with the class. Ask guiding questions: How old is your tree? Where is it growing? How has it adapted to its environment? etc.

### Extension of ideas:

- Discuss with students how they would like to display their trees. Have them consider whether their trees could be classified (by age, geographical location, or by the hardships they've faced). Allow students to group trees that have commonalities
- Consider making a book as a class. Photograph each tree sculpture and pair it with its story.
- Invite students to share their stories aloud with their classmates or book buddies.
- Expand the written assignment to include what creatures or animals might find this tree a suitable habitat. Who might it provide shelter for?

### Suggestions for Assessment:

Students can be assessed on their participation in group discussions; the relevance of gathered materials; a genuine relationship between the sculpture and its story; a reflection of the science in the artwork; and the completion and creativity of project.