

# November Nature Journaling Science Challenge



*Due date: December 1st*

The Challenge: To get out into nature and examine some trees, plants and animals signs in detail to in order to make predictions about the Spring. Also we want you to go on an outdoor adventure!

Materials: Paper and art supplies. Some sort of camera. Some time to take a walk.

## Steps

1. Take an adventure outdoors and find something or signs of something living. Good examples are trees, dried up plants, animal tracks, insect homes etc.
2. Take a picture of your found organism or evidence of an organism. If possible you may take a small sample leaf, twig, berry, nut etc. *Don't take the whole plant!*
3. If the organism isn't present in the picture, draw what you think it looks like now. What is it doing? Then draw what you think that organism will look like five to six months from now, on June 1st. What will it be doing then?
4. Repeat the process for 2 more organisms giving you three in total.
5. The photos, samples and drawings should then be mounted on some colorful paper or a poster board to be presented to the community.

Bonus: Identify your organism or choose more than one!

## Things to think about:

1. Not all trees are deciduous but many in Maine are. Will your tree lose its leaves only to grow them back by June? Maybe your plant is evergreen and will keep its leaves all winter.
  - a. *Deciduous trees are trees that lose their leaves in the Fall, evergreen trees do not lose their leaves.*
2. Many plants flower or fruit in the Spring. Does your plant? If so, what might the fruit and or flowers look like? What colors and shapes are they?
  - a. *Most all plants in Maine have some form of flower that turns into some kind of fruit, seed or nut.*
3. What does your animal look like now compared to what it will look like in the Spring. What is it doing now compared to what it will be up to in a few months?
  - a. *Many animals in Maine hibernate or change the coloration and thickness of coats for the winter.*

Questions? Contact Fitz: [pfitzgibbons@breakwaterschool.org](mailto:pfitzgibbons@breakwaterschool.org)

# Important Science Challenge Information & Guidelines for Parents:

By Sari

- The Science Challenge is open to students in Kindergarten through Eighth grade. It is optional and designed to be a process with a resulting product of which they should feel proud (even if it doesn't work the same in showing that it had at home).
- There are four challenges spread throughout the year and a trip to the Science Museum for those who complete all four.
- The Science Challenge is introduced in Science or Tinkering class with a story, background information, a materials list, rules & regulations and things to think. After the introduction which is the hook for most children, they are invited to explore materials and design and make their first model of what will grow, change and improve into its final iteration a month in the future.
- The Science Challenge is designed to be introduced at school and then worked on at home with parent support.
- On the due date the children will get to show or test their model then talk about it in the classroom in more detail. (they can opt out of the whole school showing if they wish).

## Six Helpful Hints for a Successful Experience:

(basic guidelines for your involvement and your child's success)

1. Parents are encouraged to read the Science Challenge packet that comes home before they help their child and should review the sheet together as they attempt to work on it. They should ask their child (or children) what they understand the challenge to be and ask what they learned and did in their introductory class. If there was a story, asking for a retelling will help shed light on what the youngster understands about what they are going to build.
2. Brainstorming ideas is often helpful if a child is stuck. Going to the internet is also Ok.
3. Asking helpful questions and listening to and observing the child's ideas in action without taking over the project is key to his or her ownership of the process.
4. Helping tackle design problems is encouraged when the child asks for help or becomes stuck.
5. There should be no point where there is frustration. A simple design is a good design. There are many ways to solve each science challenge and no single right way. With such a large age range we expect many levels of sophistication.
6. Doing the Science Challenge as a family has been a huge success over the 29 years that we have been offering it. It should be light, fun and engaging. If there is more than one participant per family they should each have their own entry on Presentation day.
7. Revisiting the challenge over the month and trying several ideas out is best so that the child will be able to pick the best iteration for the final sharing.

Above all, HAVE FUN!

