

# NATURE'S NEWS

From: Four Winds Nature Institute - [www.FourWindsInstitute.org](http://www.FourWindsInstitute.org)

A Newsletter for Parents, Teachers, and Students participating in Four Winds Natural Science Workshops

## Topic of the Month:

### CONIFER CLUES: CONES, NEEDLES & SPIRALS

Though we tend to refer to all conifers as pine trees, a closer look reveals a wide variety of cone-bearing species in our woods. Conifers of different kinds vary in branch, needle, and cone design.



In general, the evergreen leaves of conifers are either long and slender (needle-like) or small and overlapping (scale-like). Their waxy coating keeps them from drying out in winter.

Cones are among the beautiful designs in nature that often go unnoticed, hanging as they usually do high in the trees. They vary greatly in size and shape, in color and texture. The spiral arrangement of the scales allows the greatest number of seeds to be packed into the cones, yet still be easily dispersed when mature.

## NATURAL DESIGNS



The way that scales are arranged on a pinecone, the spiraling stems of a grape vine, the patterns of color on a bird's feathers; nature is full of beautiful and intricate designs and patterns. Look around you to find all sorts of interesting shapes and patterns.

Spirals are common in nature; look at the fiddleheads of ferns, the arrangement of pinecone scales, and the shape of a snail's shell.

What can you find that is six-sided? Look closely at the shapes of honeycomb and snowflakes.

Circles and spheres are all over the place. Mushroom caps, flowers with petals that radiate from a center point, and drops of water are all circular. Now can you find squares and rectangles? There are so many shapes and patterns! Look at tree bark, leaves, feathers, and wings. What can you find that is designed by humans that looks like a pattern or design in nature?

## NEWS FROM SCHOOL

This month, we'll have our conifer programs on two Fridays and a Monday:

This Friday, Dec. 2<sup>nd</sup>: 1<sup>st</sup> Grade

Mon. Dec. 5<sup>th</sup>: K and 3<sup>rd</sup> Grade

Fri. Dec. 9<sup>th</sup>: 2<sup>nd</sup> and 4<sup>th</sup> grades

Please dress your student for some outdoor time, and don't forget a tick check when they get home.

Ask your child about cones or other conifer clues.



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