

Pinecone Science Experiment

Have you ever picked up a pinecone and wondered, *What is a pinecone?* or *Why are some open and others closed tight?* With so many on the ground in the wintertime, it's the perfect time to get outside and collect an assortment of pinecones! Once you have a bundle of pinecones, you can begin your experiment and start investigating!

Materials:

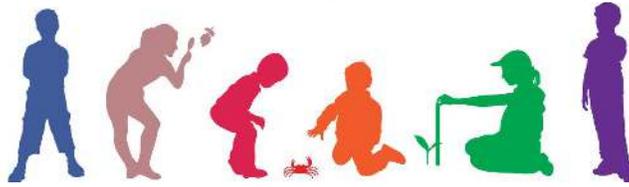
- Pinecones
- Bowl
- Cold Water
- Ice cubes



DIRECTIONS

Step 1: Go on a nature hike and gather pinecones!

Step 2: If your pinecones are OPEN, follow step 3. If your pinecones are CLOSED skip to step 6.



Pinecone Science Experiment (cont.)



Step 3: Fill a bowl with cold water and ice cubes.

Step 4: Submerge your pinecones in the cold water. Leave them in the water for several hours/overnight.

Step 5: Take your pinecones out of the water and make your observations! Are they open or closed? Why do you think this happens?

Will they open again? Lets try!....

Step 6: Leave your closed pinecone out in the warmth of your home overnight. For a faster results (with adults supervision) preheat the oven, turn the oven OFF and then place pinecone inside on a pan.

Why Do Pinecones Open and Close?

Did you know that you can use pinecones to predict the weather? As you have learned, inside a pinecone there are seeds. In order for these seeds to germinate (grow) they need to remain dry. On wet or humid days a pinecone closes its scales to keeps the seeds safe and dry. When the weather is warmer and dry, the seeds have the best chance to be dispersed away from the parent tree and to germinate (grow), thus the pinecone will open and release the seeds!