

# Acorn Cap Ink

Ink Recipe by  
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## STEP 1

Gather 2-3 cups of acorn caps from the backyard and place them in an old saucepan.



## STEP 2

Cover acorn caps with about two cups of water and add in one rusty nail. (Any small bit of old rusty metal will do the trick.)

## STEP 3

Bring the contents of the pan to a boil, and once a rolling boil is reached, turn down the heat slightly and boil/simmer for about 45 minutes, or until the liquid has been reduced in volume by at least half and looks dark brown. (You can also simmer it on the stove for much longer and just keep an eye on it if you prefer.)

NOTE: Want your ink to last a while? Add wintergreen essential oil or 2-3 whole cloves to prevent it from molding. Store the ink in a tightly closed jar in the fridge to make it last, or freeze it in ice trays and use a little bit at a time when you're ready.

NOTE: You don't want to add so much water that it takes forever to reduce, but you don't want so little water that all of it evaporates and leaves you with burnt acorn caps. I just keep an eye on it and add more if necessary.

## STEP 4

To test the ink color, dip scraps of paper into the liquid to see if the ink is dark enough for your preference. Once you like the look of the ink, remove the pan from your heat and let it cool for about an hour.

## STEP 5

Remove the acorn caps by pouring the mixture through a colander and discard the rusty nail. You can toss the acorn caps back outside for nature to reclaim.

## STEP 6

Now have fun painting with your ink! (If it is still too gritty, you can pour it through a coffee filter and into an old jar to remove remaining particulate matter.)



### ARTIST WEBSITES

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# Art Meets Science! Making Ink with Acorns and Rusty Nails

## WHY THIS WORKS

Tannic acids, or tannins, are naturally occurring molecules that dissolve in water. Tannins are often found in plant materials. If you live in the South, you've seen tannins at work and probably didn't even know it. The reason many of our lakes, rivers, and streams in North Carolina are dark brown in color, like tea, is that tannins have made them that color! When leaves fall from trees into the water they start to degrade, or break down, and tannins are released into the water. In a state like North Carolina, where we have many forested areas and an extensive river system, the waters are almost always tinted a dark brown from tannins.



Of course, this also means that other parts of a tree, like acorns, have tannins as well. If you follow the directions given for boiling acorns, you'll be rewarded with a beautiful oaky brown natural ink.



If you'd like more of a golden brown color to your ink, the addition of a rusty nail to the boiling acorns will help with that! Why, you ask? Rust is a form of iron that has been exposed to oxygen. If you've ever held a rusty piece of metal you know that the orange rust comes off on your hands. If you boil the nail, the rust, or oxidized iron, will come off in the water, changing the color of your ink slightly.

**NOTE:** The iron from the nail is not dangerous to touch. And while acorns are also safe to handle, boiling acorns in a pot or crock pot releases tannins, which can be toxic if eaten. Please do not use your acorn-cooking pot for preparing anything edible.



**TANNINS!  
DO NOT EAT!**



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