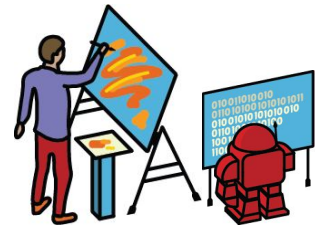


Maker Camp



Making in the News

On April 15, 2019, the world watched as the Notre Dame Cathedral in Paris burned. The famous cathedral was built from 1163-1345 and is the most famous gothic cathedral built during the Middle Ages. Since the fire, hundreds of people have been working to restore the cathedral, with a goal of having it restored for the 2024 Olympics in Paris. A lot of progress has been made in a short time, with all of the burned timbers safely removed and the structure stabilized. The spire is also being recreated using 1000 oak trees from around France, with some of the trees being over 200 years old! The trees have been cut and are currently being stored at a low humidity level to help them be ready for building a new spire in 2022. Scientists also have to make sure that any harmful chemicals from the fire are safely removed, as well as checking the stone used to make sure it's still strong enough. Heat can cause iron in the limestone blocks to change and turn brittle. They are even using radar devices to scan below the floor to see what is underneath.



Artwork from inside the cathedral is being restored as well, and people can even donate to "sponsor" a particular piece of artwork. The task of remaking a cathedral is a huge task, but people with all types of skills are contributing to the work.



Questions:

- ...What would be the toughest part of restoring an old structure like the Notre Dame Cathedral?
- ...How would you design new buildings to be able to withstand disasters?
- ...What types of careers would be useful when rebuilding old buildings?

Learn more about the cathedral: [Here](#), [Here](#), & [Here](#)

Cool Career: Art Conservator

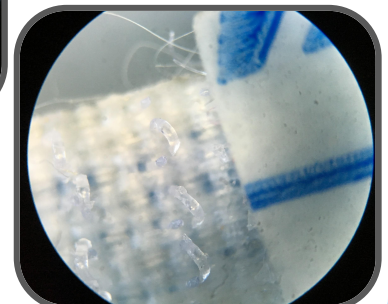
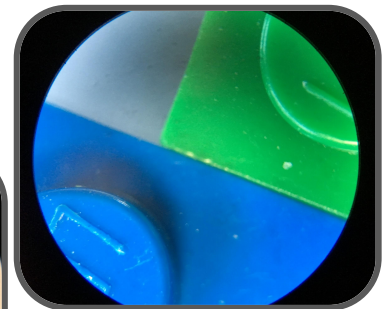
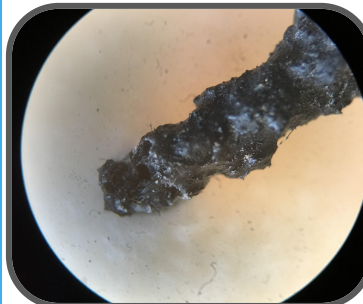
Did you ever wonder what happens if a priceless painting or sculpture gets damaged? Art conservators are people who repair, preserve, and clean priceless works of art. Sometimes they even have to determine



if a piece of artwork is authentic or a forgery. People who work in art conservation must study the chemistry and properties of materials used in artwork, be able to analyze the artwork using various types of technology, and have a love of history. If you think a career in art conservation sounds interesting, learn more about [Art Conservators](#)

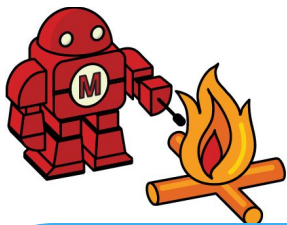
Mystery Photos

Can you identify the mystery arts & crafts items under the microscope?

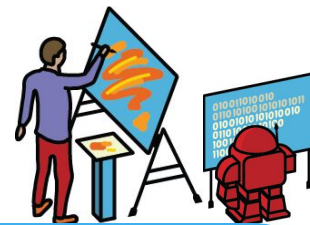


Decode the answers using A=1 & B=2...

3 1 14 4 12 5 23 9 3 11
12 5 7 15 19 22 5 12 3
18 15



Maker Camp



How Things Get Made

Have you recycled paper before? Did you ever wonder how it happens?

Or what the machinery looks like that turns your old magazines, cardboard, mail, and homework into fresh new paper? Sorting the old paper requires sifting, tumbling, and scanning machines, and even human inspectors to ensure the right materials make it into new paper for our use.

Watch [the process](#).



Q & A with a Maker

Kathy Ceceri: Author, Industrial Maker, & Teacher

1) *When did you start making?*

I think most Makers would say they've been making stuff all their lives (here's [a comic panel about my maker origins](#)). I started turning my Maker powers to good when I used hands-on projects to homeschool my kids. Now I write books and tutorials (and teach classes online and in person) that use Maker projects to help kids explore science, technology, and more!

2) *What is your favorite part of making?*

Figuring out how to replicate a project that looks much too difficult to do at home, using everyday stuff. Things like building a working hydraulic robot arm from paper towel tubes,

or making a speaker that you can plug into your phone using a coil of copper wire, a magnet, and strips of tape.

3) *What was your biggest "fail" when making?*

Oh, so many fails. I've never had a dramatic fail (no explosions or nuclear meltdowns) but I've had quite a few ideas simply fizzle out. Sometimes they can be salvaged when I've done a little more research, or consulted some of my expert Maker friends. A lot of times you just have to move on. But there are also failures I've put away in a box in the attic, hoping to find an answer sometime in the future. I still have the supplies to make a DIY Edison phonograph that cuts its own records on a rotating plastic cup. Someday I'll figure it out!

4) *What do you want to learn about next?*

I've written about paper projects, musical & edible inventions, and things you can make from fabric and fiber. Lately I've been digging into robotic contraptions that can be built with a DIY body and a basic microcontroller, a servo motor, and simple programming. I love seeing what other people are doing with paper and cardboard robots and light-up wearables, and trying to put my own spin on them!



Maker Camp Events

Maker Camp has online live events too! Ask your Maker Camp leader for the links to attend!

CodeJoy Daily Live Virtual Sessions

July 12-16 from 4 pm ET / 1 pm PT

During this [live coding session](#), Elby is desperate to win a kazoo from the prize wall at the mini-golf course, but this game is rigged! Kelsey and Matt the Robot will need to teach participants to reprogram the old, unfair code of the obstacles to make the games playable. Participants will learn the basics of coding position and rotation motors using Makecode.

Coming Soon! Mario the Maker Magician Live Zoom Party on July 29. Space is limited!

Maker Challenge

Tried all of the challenges for this Adventure? Ask your Maker Camp leader for info about these fun projects:

[Make Edible Paper](#)

[Flea Circus Coin Magic](#)

[T-Shirt Yarn Knotted Headband](#)

