



# STEM Camp @ HOME

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# 14 DAYS OF FUN



## DAY 6 OF 14

### **Hello STEM families!**

Welcome to Day 6 of STEM Camp's "14 Days of Fun Contest"!

We hope you enjoyed yesterday's contest and we would like to congratulate our winner Ashley McClatchey!! Please message us on Facebook to redeem your prize.

Today's contest is going to be based around our final theme of the 2020 summer, Avengers! You will get the chance to win a prize of your choice! You could get the chance to choose from a...

1. Holographic soccer/basketball
2. Astronaut Barbie
3. A free week of camp! (Depending on availability)

### **To enter the contest, follow these steps!**

- Like our Facebook page and share this post
- Tag 2 friends in this post and comment your child's favourite Avenger character
- Lastly, make sure you use these 3 hashtags to make your entry count: #STEMCamp #seriousfun #Summer-camp

We will conduct a random draw from all entries received today. The winner will be announced on Facebook tomorrow.

**Have fun and good luck!!!**

# STEM CAMP PUZZLER

## ENGINEERING



### True? or False? Statements

Are these statements about Engineers, or Engineering True (T) or False (F)? Circle the T or F to the right and then check the answers which are given upside down at the bottom of this page.

1. One of the structures that an engineer might build would be a tunnel. **T F**
2. It was amazing that nobody died during the building of the Golden Gate Bridge in San Francisco. **T F**
3. Engineering is often said to have 4 main disciplines, but in fact there are several sub-branches as well. **T F**
4. Nikola Tesla was a design engineer who created the system of Alternating Current (AC), still a worldwide standard. **T F**
5. Engineers “shall perform services only in areas of their competence”. **T F**
6. Rowan Atkinson, Mr. Bean, was a PhD student in Electrical Engineering at Oxford University. **T F**
7. Jeff Bezos, Amazon, studied electrical engineering at Princeton University but flunked out in 1986. **T F**
8. Alexander Graham Bell did not have a formal degree in Engineering even though he was called an engineer. **T F**
9. STEM graduates are among the wealthiest people in the world. **T F**
10. Chris Hadfield, engineer and astronaut first lectured a 3rd year Geography class at the University of Waterloo in the fall of 2014. **T F**
11. As well as being an astronaut, Governor General Julie Payette is an engineer. **T F**
12. Desperate Housewives star, Teri Hatcher has a degree in mathematics and engineering. **T F**
13. Astronaut Neil Armstrong earned an aeronautical engineering degree in one year. **T F**
14. The wheel was invented by an unknown engineer back around 35000 BC. **T F**
15. Engineering can be defined as the application of science to solve problems. **T F**
16. The Dyson Institute of Engineering and Technology in the UK offers free tuition to students who want to be engineers. **T F**
17. The Royal Military College in Kingston Ontario cancelled its engineering degree program in 2016. **T F**
18. Egyptian Imhotep is regarded as the first engineer, building a Pyramid. **T F**
19. Jim Parson of The Big Bang Theory tv show is a civil engineer in real life. **T F**
20. The Massachusetts Institute of Technology MIT is regarded as the top engineering school in the US. **T F**

Answers: 1.T 2.F 3.T 4.T 5.T 6.T 7.F 8.F 9.T 10.T 11.T 12.T 13.F 14.F 15.F 16.T 17.F 18.T 19.F 20.T

# ACTIVITY OF THE DAY

## Make Homemade Toilet Paper



If you're finding yourself in the grocery store and there is no toilet paper available don't worry we have you covered. Today we will be making your very own homemade toilet paper!

### What you'll need:

- *Any paper, except for glossy magazine paper*
- *A pot*
- *Water*
- *Aloe, baby oil, or any type of unscented lotion (these act as softening agents)*
- *Witch hazel (optional; acts as an antibacterial agent)*
- *Grass and leaves*
- *Rolling pin*
- *Mallet or hammer*
- *Sheet or towel*
- *Ladle or spoon*
- *Large cutting board or other flat board*

### Now Try The Experiment!

**Step 1:** Soak the paper in water first to remove as much ink as you can, especially if you are using newspaper. Once at least  $\frac{3}{4}$  of the ink has seeped out of the paper you can pull it from the soak water.

**Step 2:** After you soak the paper, place it in a pot with two handfuls of grass and leaves and cover with water. Bring this to a boil and allow it to simmer at a low temperature for one hour.

**Step 3:** Bring the water to a rolling boil for half an hour. You can add water as necessary and you will find foam forms on top that you will need to remove.

**Step 4:** After boiling, the paper becomes pulp. You will now remove the pot from the heat and remove the water from the pot without disturbing the pulp. The best method is to scoop out most of the hot water, leaving the pulp intact, and then let the rest cool. If you do need to remove the pulp from the pot, do not let it dry out. You will need to put it back into the pot when the water is gone.

**Step 5:** Once the pulp has been put back into the pot, mix in 4 tablespoons of oil or lotion, which will soften the paper, and just a few drops of witch hazel, if you are using it.

# ACTIVITY OF THE DAY

**Step 6:** Spread the pulp mixture on a towel or sheet spread on a hard flat surface. You can roll it out with the rolling pin, getting it as thin as possible. If there are lumps, you can hammer these down with the mallet.

**Step 7:** Lay the board on top of the rolled out pulp and weight down with heavy objects.

**Step 8:** After 30 minutes, remove the weights and the board. You can then turn the towel or sheet over and pull it off of the toilet paper.

**Step 9:** Put the toilet paper out in the sun to dry.

**Step 10:** Once dry, you can cut it into strips.

## The STEM Behind The Fun!

Creating your own toilet paper is a great way for children to understand the process of adding ingredients and the effects of combining different materials to make something new! Although we take toilet paper for granted, toilet paper has a relatively short history in the modern world. Toilet paper was initially made by an inventor named Joseph C. Gayetty in 1857. He engineered softer paper material that was loose flat sheets of paper that he called “The Therapeutic Paper”. Scott Paper Company then came out with their own in 1890 which was the first toilet paper sold in rolls and is what we currently use to this day!

# STEM VIDEOS

## **The STEM Video of the Day is... If You Build It**

A great documentary that features young inventors is If You Build It. This movie follows two teachers in one of the poorest counties of North Carolina who work with ten (10) students to complete a year-long building project. The students learn design thinking, creative problem solving, and other STEAM skills while developing projects that help the community and inspire them to learn. The movie is a favourite with teachers as well as parents who want to encourage creativity in their kids. If You Build It is rated age 13+ on Common Sense media and is available for rent on Apple TV. Enjoy!

**The trailer can be found here: <https://youtu.be/Vmt1E-zRM9E>**

# POSITIVE MESSAGE



## Back to work in China COVID-19 epicentre as restrictions eased

BEIJING: People in central China where the coronavirus was first detected are allowed to go back to work and public transport is restarting, as some normality slowly returns after a two-month lockdown. The easing of restrictions in Wuhan city comes as Chinese health officials reported Monday no new local cases of the deadly virus, but confirmed another 39 infections brought from overseas.

<https://www.channelnewsasia.com/news/asia/back-to-work-china-covid-19-coronavirus-epicentre-restrictions-12567840>

# UPDATES FOR CHILDREN

In this episode from Dr. Panda TotoTime, children will learn about the 2019 novel coronavirus and the good habits to adopt to protect themselves from it with Dr. Panda & Toto. Geared toward younger children it nevertheless has good information for older kids as well.

LINK: <https://www.youtube.com/watch?v=PkUICIFE45M>



# UPDATES FOR PARENTS

Most of you will likely have this information by now but it is worth sending it once again just in case. On March 18, 2020 the Canadian Government announced measures in an attempt to help stabilize the Canadian Economy packaged in something called Canada's Economic Support plan.

It can be found here: <https://www.canada.ca/en/department-finance/news/2020/03/canadas-covid-19-economic-response-plan-support-for-canadians-and-businesses.html>



# Register Today

## ***STEM Camp, The Best Summer Camp Ever!***

A fun, accessible way for children to explore their sense of wonder through structured, hands-on experiences and learning opportunities.

[Click To Register](#)

**STEM**camp.ca