

# SPACING OUT

DESIGN YOUR VERY OWN  
SPACE STATION USING  
CARDBOARD!

## HAVE YOU EVER WANTED TO EXPLORE OUTER SPACE?

Imagine that you and your friends got to spend a year together in your own space station! What would you need to live and be comfortable? Use the ideas you come up with to design your own space station.

## SUPPLIES YOU'LL NEED

- Plenty of cardboard boxes
- Duct tape and a tape measure
- Scissors or box cutters
- Paint (optional)
- 2 plastic cups
- 4 straws
- 5 pipe cleaners

If you don't have access to these supplies, don't worry! Just grab a pen and a piece of paper. Be creative and draw your space station!

## HOW TO GET STARTED

With the help of your parents, start using your materials to craft your new outer space home! Whenever you are using sharp tools, be sure to take safety precautions and have an adult present!

Here are some things to keep in mind when designing your space station:

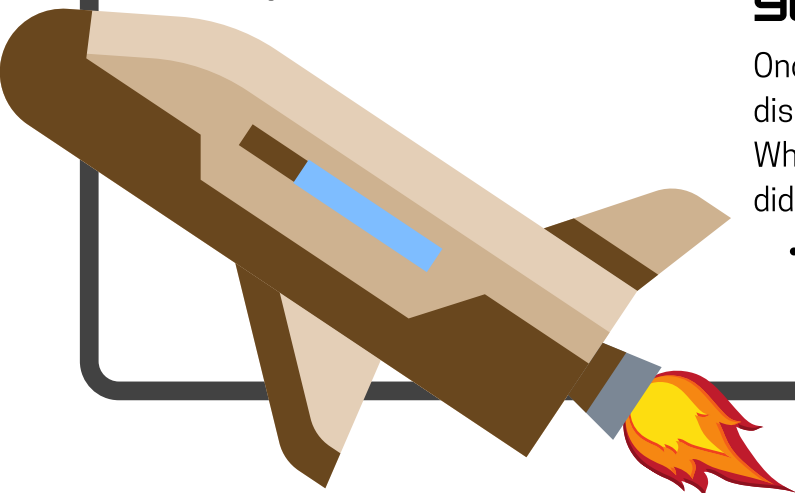
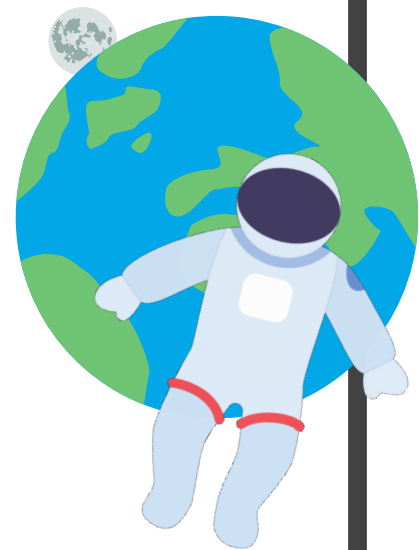
- What do you need to make it comfortable to live in for an extended period of time?
- Which rooms will you need? Bedroom? Work space? Fun room?
- How many people do you want to accommodate?

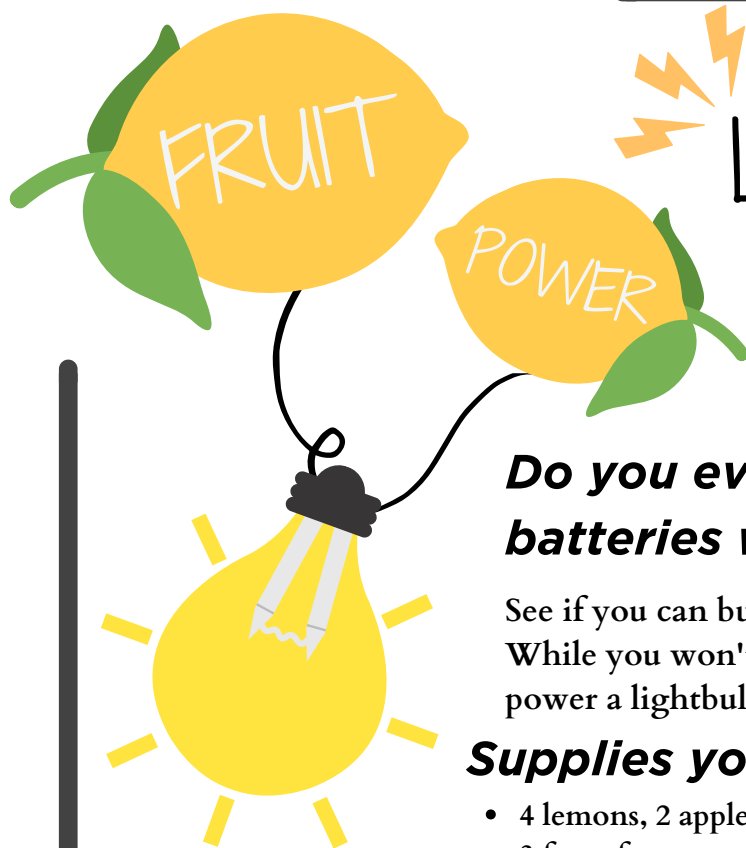
And most importantly, have fun! This is your space station, so feel free to think outside the box and get creative!

## YOUR RESULTS

Once you finished designing your space station, discuss your results with your friends and family! What features did you include, and what challenges did you face?

- Take a picture and post on your socials. Make sure to tag us @tutordotcom so we can see your creations!





# LEARN HOW TO BUILD YOUR OWN MINI-BATTERY!

## ***Do you ever wonder how your batteries work?***

See if you can build your own battery that conducts electricity! While you won't be able to turn on your TV, you may be able to power a lightbulb!

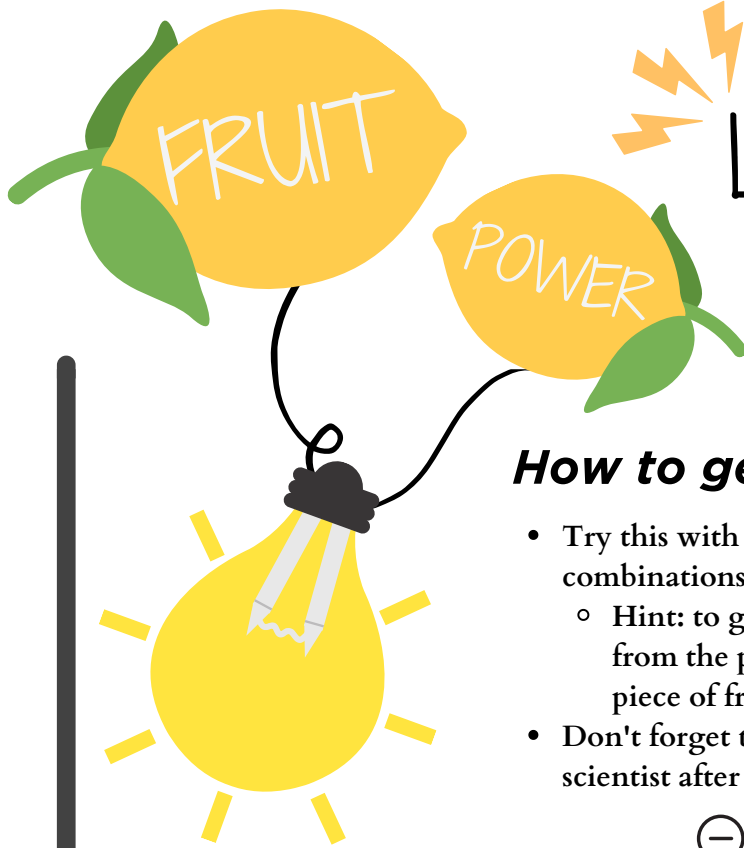
## ***Supplies you'll need!***

- 4 lemons, 2 apples, and 2 potatoes
- 3 feet of copper wire
- Wire cutters
- Knife and cutting board
- Galvanized nails (12 or more)
- Copper pennies (12 or more)
- Alligator clips
- Small LED lightbulb
- A multimeter
- Notepad
- A small digital clock (optional)

## ***How to get started!***

- Set each piece of fruit on the table, and roll it with the palm of your hand to soften it up. You want the juices to be flowing, but you don't want the fruits skin to break.
- Make small inserts in the fruit with your knife.
- Attach copper wire to the nail and to a copper penny using your alligator clips.
- Insert the galvanized nail and copper penny into each piece of fruit you use, then connect them to the lightbulb using your copper wire.
  - The penny and the nails should be about 2 inches, or 5 cm apart. You don't want them touching each other, and you don't want to push your tools through the other end of the fruit!
- If the lightbulb doesn't light, attach the wire ends to the multimeter to see if you are generating electricity. Remember: You might have the wrong ends attached to the two wires on the lightbulb. You will have to switch them.
  - One side of the lightbulb is the positive side and the other is the negative.
  - If the multimeter is showing that you are generating electricity, try connecting to the lightbulb again.
  - You may need to troubleshoot the connection to the lightbulb or the amount/type of fruit used

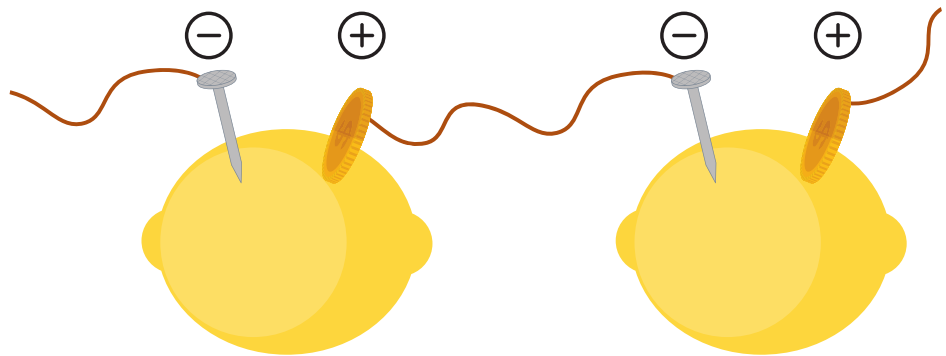




# LEARN HOW TO BUILD YOUR OWN MINI-BATTERY!

## ***How to get started - Part 2!***

- Try this with as many fruits and vegetables or as many combinations as you'd like!
  - Hint: to generate more electricity, you can connect a wire from the penny on one piece of fruit to the nail on another piece of fruit. With this, you can daisy-chain a bunch of fruit!
- Don't forget to document your work! That is a sign of a great scientist after all!



## ***Your results!***

Feel free to post a pic of your electrical contraption online, and show off your scientific genius! Don't forget to tag us @tutordotcom when you do!

- Now that you've finished your science experiment, think about and discuss the following questions:
  - Why do you think some fruit combinations work better than others?
  - Does the penny represent the positive or negative charge? What about the nail?
  - How does electricity flow throughout your battery?
  - What is the most important component of battery design, and why can't we design batteries to hold their charge forever?

*If you want to learn more or have any questions, head to your library's Tutor.com program!*

# Spin it in a Minute

Learn all about  
micro-fiction  
and how to  
write it!

## Test your imagination and writing skills!

You will be writing micro-fiction which is another way of saying "very very short works". Remember that fiction comes from your imagination, so it doesn't have to be based in reality! Today you will create four stories that are 6, 25, 50, and 100 words long. We weren't joking when we said they were short!

## How to get started

If you don't know where to begin, try reading some examples of micro-fiction online! Discuss and think about what makes some examples more interesting than others, and how this type of fiction differs from a standard novel or book. Try writing about a topic or interest that you are passionate about! Your four stories should be connected in some way so that you will create your own personal anthology.

## Your results

Now that you've successfully created your own stories, you should print the results and share them with your friends and family. Also, think about the following questions once you are done:

- What did you like about writing micro-fiction?
- Did you find it challenging? If so, why?
- Do you prefer writing long pieces or short ones?
  - If you prefer writing longer ones, maybe give that a try!

**If you are struggling with this activity,  
head to your Tutor.com program and work  
with one of our tutors!**





# FEEL THE BURN!

## What do you really know about exercise?

Exercise comes in many forms. From sports to riding your bike, even playing some interactive video games can count as exercise! But how does it work?

It's all about moving your body, and the more that you do it, the easier it gets! Now, just like a car, you have to give your body fuel, and the way that we do this is by eating! Our bodies convert that food into energy, which we measure as calories. So the more you move, the more fuel you burn!

Below are some common and fun activities that you can do for a little bit of exercise! Over the next couple of days, check off whatever activities you do! By the end of the week, see how many you've completed and compare with a friend.



Pick up your jump rope!

Limber up with a bit of yoga

Play at the local park with friends

Play basketball with friends or family

Go for a short jog

Go for a 30-min walk

Play an interactive video game

Go hiking with friends or family

Go swimming!

Ride your bike around town

Dance to your favorite music

Play soccer with your friends

Build an at home fort

Have a water balloon fight with friends!

Make your own obstacle course!

*When looking at the activities you did this past week, which ones were the most fun? Try incorporating them into your weekly activities.*

*It's a great way to have fun and stay active!*



# Let's Get Groovy!



## It's time to bring the 70's back!

Share the memories of the 70's with your kids by creating homemade lava lamps!

### Here is what you'll need:

- A water bottle
- Vegetable oil
- Water
- Food coloring
- Alka-Seltzer®

### How to get started

- Once you're done drinking from your water bottle or soda bottle, clean it out and pour vegetable oil until you are about 2/3rds full.
- Next, fill the rest of the bottle with water until there is only a *little* bit of space left
  - You should see that the water sinks under the oil.
- Add the food coloring of your choice. It is your personal lava lamp after all!
- Go ahead and stir your lamp using your preferred stirring utensil (shaking the bottle can disrupt the oil, making the final effect less impressive).
  - You should see that the food coloring only mixes with the water.
- Once you're ready, break up the Alka-Seltzer® and drop it in one piece at a time! Watch what happens and record it down in your notes.

### Your results

Now that you've created your very own lava lamp, it's time to take a look at how it works!

Some questions you should ask yourself:

Why does the water and oil separate?

Why does the food coloring mix with the water but not the oil?

What role does the Alka-Seltzer play in getting the lava lamp to work?

Do you want to learn more? Head to your Tutor.com program and talk with one of our chemistry tutors!



# LITERACY CHECK!

THERE'S MORE TO LITERACY THAN JUST READING A BOOK

*We always think about it in terms of reading a book, but not everyone has time to do that! In fact, reading and literacy come in all different shapes and sizes. Below are just a couple of the different forms of literacy. Let's take a look and see how often you practice these. If you realize you don't practice these as often as you should, look them up and learn more!*

## 7 DIFFERENT FORMS OF LITERACY



### **Reading and Writing**

*This is the form that most people think about when it comes to literacy. But in reality, it goes past just reading and writing. It includes the ability to understand the text and relate it to others, or expressing yourself by writing.*



### **Digital Literacy**

*Can you meaningfully navigate and understand the technical world? If you can find information and engage with others online, then you are digitally literate. This is a super important skill for the 21st century!*



### **Media Literacy**

*Whether you are reading the news, interpreting subtle messages in advertisements, or understanding the context of emojis, you probably demonstrate media literacy every day!*



# LITERACY CHECK!

THERE'S MORE TO LITERACY THAN JUST READING A BOOK



## **Visual Literacy**

*This is all about being able to understand and create images. This in some ways ties in to media literacy, since you are deciphering videos, photos, graphs and other information.*



## **Financial Literacy**

*This can include creating a budget, tracking your expenses, planning for retirement, or even smart investing. Financial literacy is super helpful for those looking to be a bit more independent!*



## **Emotional Literacy**

*Emotions can be complicated, and they impact every aspect of our life. This type of literacy is all about being able effectively listen as well as respond and give feedback in a healthy way, whether they take place in a written and verbal form.*



## **Health Literacy**

*This entails understanding your body, both physically as well as emotionally. Health literacy can also encompass anything from researching care providers to understanding medication labels.*

There are so many different types of literacy that you can practice. Do some further research online to learn more!