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## PARENT LETTER FOR ELECTRIFYING MAZE OF MYSTERIES

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Dear Parents,

We have lots of exciting, fun and educational activities for your child! Please note that the order will be different than listed here. Check with your child or their teacher to see what they are working on!

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### SCIENCE SUMMARY

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The students will complete activities not taught in fall at your child's school. To see which activities were not completed, please see the flyer for your child's class.

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#### FUN WITH NEWTON

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Ok, the laws may sound boring but the proof of the laws is not! We have amazing beads that defy gravity. But the favorite is our Potato Launcher!

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#### SOUNDS LIKE FUN!

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We will start with a **thunder tube** that will light up their eyes as they see how sound can be amplified.

We will explore how sound works and how our ears pick up on the sound with an exciting array of experiments. We have to use sonar to find the location of our Dr. Lipid's underwater lab. But first we must understand how sound can work to accomplish this mission.

Next we will explore **how we hear** with our model eardrum and special sound games.

Back to our sound amplification with some very exciting and funny experiments such as **a talking cup** and **screaming balloon**. **Just how does sound travel?** We will explore with a sound symphony, sonar search and eavesdropping activities.

We will finish our Sounds Like Fun! Portion with an understanding of **frequency and resonance** with our strange band of Singing Bottles, Singing Tubes and Palm Pipes.

Whoever knew sound could be so much fun!

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#### BEES, BUTTERFLIES, DRAGONFLIES AND FLUORESCENCE!

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We will sing our favorite song: The Nature Lover Song and then make a Tie Dye Butterfly Magnet. What do you think they will name it?

Who said food cannot be fun and educational? We will learn about pollination as the children get "pollen" all over their hands trying to get the snack in the middle of the bowl!

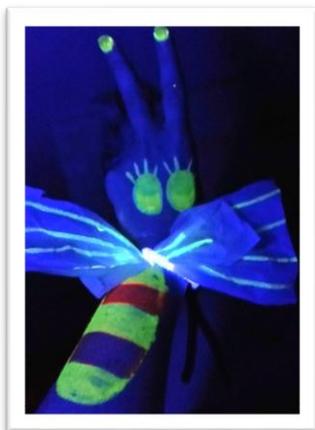
You may want to show up for the fun as the children enact the bee buzzing dance! They will show the rest of the class where to find the food! Don't worry we will make sure they know all of the Bee Safe rules! We also have

lots of fun bee songs.

What is it like to see through the eye of a bug? Children will find out!

On to the butterflies: The children will love becoming a butterfly as we enact a metamorphosis. This is an all-time favorite activity!

We learned how to see like a bug now we will also learn how to drink like a bug. Have them show you how!



Imagine how dangerous it is to be a beautiful butterfly! How do they avoid being eaten? We will find out in our camouflage game.

Children will experience how to safely catch bugs by practicing with nets and popcorn. When nets won't work they will learn how to catch one in a jar without injuring the animal. Have the children sing you the Mammal Song! This will help them grasp the difference between a mammal and other animals.

When you pick the children up today, make sure you get to see your little **lightening bug glow in our fluorescent** room with bioluminescence.

## ELECTRICITY AND MAGNETISM



We feel that the engineers on board our submarine need to know how to fix the electrical system if something goes wrong. We also may need to be able to make our submarine into a magnet. Can we do that?

Children always love magnets but we have some with a new and exciting twist. Can we make an object a permanent magnet then remove those properties? Have they ever seen Ferrofluid? Hmm, I don't think they will forget that one! How about the apparent science magic of an eddy current where things move in an unexpected time warp. The children

will even make their own compass.

We will explore the relationship between electricity and magnetism. Do you know how electricity creates a magnetic field and how a charge moves down a wire? Be sure to ask your child at the end of this session. We will make an electromagnet and test how to improve its properties.



We will investigate series and parallel circuits, make a fuse and test insulators and conductors.

We will make our kids hair stand on end with an electrostatic generator... Hmm and make paper to stick to a wall and make cans move.

Next we will introduce Snap Circuits Lights! See the amazing and colorful creations your child will create!

Do you want to come to our class with your child now?

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### AMAZING SPIDERS

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They will learn about two fascinating spiders that live in Hawaii. We are going to have great time learning about Spiders!

We hope by the end of this program the students will love or at least respect spiders for the fascinating and helpful creatures that they are.

They will learn that spiders are different than insects because

- Spiders have 8 legs instead of 6 like insects.
- Insects have 3 body parts-head, thorax (where the legs are) and abdomen. A spider has **only two parts**. The head and thorax are combined into a **cephalothorax**. **See if your child remembers this term**. The Cephalothorax has the eyes, mouth and legs. The abdomen has the spinnerets that make the web.
- Spiders have 8 eyes
- Spiders have 6 spinnerets. Ask your child why they need different ones. Answer: They need one pair for the sticky strands of their web and another set for the ones that are not sticky that they can walk on.
- Hawaii- the Cane spider that grows as big as a softball and eats roaches (Go Cane Spider!) and a happy face spider that is small and has a happy face on its back.

They will do several activities that help them learn about the sticky nature of webs and have the opportunity, weather permitting to go on a nature walk in search of these interesting creatures.

To finish this section, children will learn about Decomposers and do a log decomposition and an I Spy FBI's game to learn more about the different animals that help decompose leaves and logs in the woods.