



Science Mania

4th-5th Grade, Week of: June 10th, 2024

What We Did on....Monday: BIOLOGY

Oreo Mitosis

- We modeled cell mitosis using oreos and sprinkles. The oreos represented how the chromosomal DNA changed during each stage of mitosis

Cheek Cells

- We took our new knowledge of cells and examined our own under a microscope! We also looked at how our cheek cells compared to animal and plant cells in terms of structure.

Habitats in a Jar

- Today we explored biomes by creating a miniature ecosystem in a jar to demonstrate some of the habitats that help the world function. How creative!

Food Web

- We learned how different organisms in the habitats we learned about were able to interact through food chains and food webs! We modeled this using string and sheets labeled with different consumers and producers.

Custom T-Shirts

- We started making personalized camp t-shirts by learning how to use Corel and picking vectors for designs.



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What We Did on...Tuesday: CHEMISTRY

Capillary Action

- Today we learned about biochem and how water travels up the stems of plants.

pH Testing

- We introduced the concept of pH through the testing of many liquids! We used pH strips and explained the properties of common household acids and bases.

Yeast Reaction

- We learned about the properties of yeast and how it produces oxygen. We then tested it in a reaction by trying to see if we could inflate a balloon using yeast and warm water.

Periodic Table Introduction

- We learned about the periodic table of elements and learned a fun song! We then played periodic table battleship to learn about the elements.

Fire Snake & Fireworks

- We learned how to use heat and chemicals to make fun fire reactions, and how coloured flames in the fireworks happen.

Whoosh Barrels

- We learned about combustion reactions and how the Fire Triangle works.

Water Stratification

- We learned about the different densities of water preventing them from mixing. We then modeled this with dissolving the dye of skittles to show how the dye will not mix.



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What We Did on...Wednesday: ASTRONOMY

Planets

- We modeled the solar system to scale using fruits to show how things like the asteroid belt can affect the size of the planets in our solar system! We then built our own solar systems using our new knowledge of planets.

Rovers

- We learned about the rovers sent to the moon and to mars, then modeled our own rovers and raced them! We used balloons to power these cool creations. Wow!

Galaxies

- We learned about the properties of yeast and how it produces oxygen. We then tested it in a reaction by trying to see if we could inflate a balloon using yeast and warm water.

Constellations

- We learned about how we can connect stars to make shapes called constellations! We learned about some common ones, then created our own on a board of thumb tacks and rubber bands.

Comets

- We learned about the properties of comets, and then made a model of a comet using tinfoil, clay, and streamers.

What We Did on...Thursday: FOOD SCIENCE



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Bouncy Egg

- We learn how vinegar reacts with an egg to dissolve its shell, leaving only the membrane! This enables an egg to be sturdy enough to bounce like a bouncy ball. Kaboom!

Apple Preservation

- We learned how different liquids affected the oxidation of an apple. Acidic substances, like lemon and lime juice, make an apple brown slower, whereas things like water and milk make it brown faster.

Fizzy Lemonade

- We learned about carbonation and how baking soda's reactivity is able to make things fizzy. We demonstrated this with some yummy lemonade. Mmm!

Mug Cakes

- We learned about the ability of microwaves to cook things quickly via our very own mug cakes. How scrumptious!

Freeze-dried Fruit

- We learned about how freeze dryers utilize sublimation to dry fruits out! Campers then got to eat freeze dried fruits from the lab!

Solar Oven

- Campers learned about conductors and insulators, and how solar ovens collect the sun's rays and use it to heat food. The campers made a solar oven and can use it to cook food.

Colorful Milk

- The kids learned how fat molecules in milk can be broken down by dish soap, which causes swirly patterns that create designs with food dye.

What We Did on....Friday: ANATOMY & NEUROSCIENCE



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Solar Ovens

- We took our solar ovens from yesterday and used them to make smores and nachos! Yum!

Bouncy Egg

- We finished our egg experiment from Tuesday and watched our eggs bounce!

Neuroscience

- We learned about how the five senses affect each other and how the brain perceives images! We did jelly bean taste tasting to see this in action.

Vitals

- We reviewed our body's vital organs such as the lungs, brain, and heart. We learned about the function of the heart and modeled it using play dough.

The Human Hand

- We learned about the complex anatomy of the human hand and why it is essential to daily life. We created a movable paper model of the hand to learn from and explore the hand's joints and movements.

DNA

- We created a double helix DNA strand out of candy and learned about why DNA is essential to all life.



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