

Family Math & Science Night  
List of Themes and Activities

***"Build it! Engineering Design Challenge" (grades 4-6)***

Opening Activity

Battle of the skyscrapers: attribute blocks game  
Build a bridge out of paper  
Building a structure from plans  
Catapult Launch  
Face-off: Square vs. Triangle Gumdrops structures  
How long is the Statue of Liberty's nose?  
Levers #1 Lever Models  
Levers #2 Can you lift your parent?  
Tug Push Twist O War – Tension, Compression, Torsion

Extended Activity: Build it and Test it! Tower Challenge Activity

part 1: Build it Strong!

part 2: Build it Tall!

***"Let's Investigate! Backyard Creatures (grades K-3)***

Opening Activity

Create your own insect and add it to our environment  
How do insects grow? - Stages of metamorphosis  
The Dirt on Worms – Living things  
Insects and Flowers  
Bug Behaviors, How do insects see?  
Some bugs walk on water  
Grasshopper Long Jump: Can you jump as far as a grasshopper?

Extended Inquiry: Become a Biologist

Ladybird Beetles Investigation

***"Let's Investigate All About Birds" (grades K-2 or 3-5)***

Opening Activity

Feathers - Feather adaptations  
Feeding Frenzy – Bird beak adaptations  
Flight Engineering  
How fast can you flap?  
What is your wingspan?

Extended Inquiry: Become a Biologist

Owl Pellet Dissection

Bird of Prey & Food webs

***Junior Detective - Kitchen Chemistry" (grades K-3)***

Opening Activity - Detective Training, Framework

Finding Patterns in Liquids

Candy Chromatography

Fingerprinting

Secret Messages – acids and bases

Roll that Dice: a probability game

Extended Inquiry: Put it all together

Solve the Mystery of the Missing Coffee Mug