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| Month | **Stem** Challenge | Unit |
| August | Water Cycle Design Challenge | * White construction paper 12 X18 for folding triorama
* Scrap box materials
* Glue
* Paper fasteners

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| September | Blowing in the Wind | * Construction paper
* Fabric strips
* Trash bags
* Dry cleaner bags
* Tissue paper
* Crepe paper
* String
* Yarn
* Paper clips
* Pipe cleaners
* Wire bag ties
* Thread
* Glue
* Washers
* 12 inches’ tape
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| October | Make a Comet | * Dry Ice
* Garbage Bags
* Hammer
* Gloves
* Ice-cream sticks
* Sand or Dirt
* Ammonia
* Corn syrup
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| November | **Rainbow in a Jar** | * 1 jar
* 1/2 cup blue dishwashing liquid
* 1/2 cup olive oil
* 1/2 cup rubbing alcohol
* 1/2 cup light corn syrup
* Food coloring
* 5 spoons
* 5 bowls for mixing

**per group** |
| January | Controlling Sound | * One pair of working headphones (the kind that covers the entire ear)
* Bells, small buzzer, CD player, or other noise-making items

**Each group/individual needs:*** Various materials such as cloth, sponges, foam, cotton balls, cotton batting, small carpet samples, and any other materials that will absorb sound
* Something to hold the earpieces together, such as old headphones without the earpieces or a piece of material that will bend without breaking (vinyl strips from a mini-blind or inexpensive plastic headbands)
* Dixie cups (work well as earpieces and can be stuffed with sound-absorbing materials)
* Rubber bands
* Duct Tape
* Masking tape
* Scissors
* 2 copies of [Headphone Planning Sheet](https://www.teachengineering.org/collection/cub_/activities/cub_soundandlight/cub_soundandlight_lesson5_activity1_headphone_planning_sheet.pdf)
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| February | Air/balloon Powered Car | * Toilet Paper Tubes
* Paper Towel Tubes
* Masking tape
* Cereal Boxes
* Tissue Boxes
* Craft Sticks
* Toothpicks
* Balloons
* Construction Paper
* String
* Glue
* Pipe Cleaners
* Paper plates
* Paper bowls
* CD’s
* Bottle Caps
* Water Bottles
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| March | Got Energy?Spinning a Food Web | **Each group needs:*** 1 piece of cardboard or construction paper
* 1 or 2 nature or wildlife magazines (such as National Geographic, Natural History, Ranger Rick, etc.)
* Scissors
* Glue

**For the entire class to share:*** Several balls of string or yarn (can be re-used for future projects)
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| April | Classroom Camouflage | **Copies of Animals from Challenge**  |