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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   **s NestArtifact sifterChallengers** |
| 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 |
| October | Make a Comet | * Dry Ice * Garbage Bags * Hammer * Gloves * Ice-cream sticks * Sand or Dirt * Ammonia * Corn syrup |
| 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) |
| 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 |
| 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) |
| April | Classroom  Camouflage | **Copies of Animals from Challenge** |