|  |  |
| --- | --- |
| **Stem** Challenge | Materials Needed |
| Phet  Build a Circuit | **Electricitys NestArtifact sifterChallengers**  None |
| Mystery Science  Magnets and Engineering | Magnetism   * Cardstock * Dot Stickers * Index Cards * Paper Clips * Paper Fasteners * Post-its * Ring Magnets |
| Biomimicry | Cells   * Paper * Pencil * Markers or colored pencils * Ruler |
| [All About Water](https://www.teachengineering.org/view_lesson.php?url=collection/cub_/lessons/cub_drink/cub_drink_lesson01.xml) | **Microorganisms**   * top half of a two-liter plastic bottle * coffee filter * zip-lock sandwich bag * 2 plastic cups * [A Matter of Leaching Worksheet](https://www.teachengineering.org/collection/cub_/activities/cub_drink/cub_drink_lesson01_activity1_worksheet_tedl_mhf.pdf) * [Water Worksheet](https://fultonk12-my.sharepoint.com/:w:/g/personal/fergusons_fultonschools_org/ERoFrPLvwF1CuiPNpVAeR-AB-HCc0OxZoL5jljGuTxEANQ?e=wEBvQN)   Optional materials:   * sand * gravel * cotton balls * screening * activated charcoal or carbon (optional, can be purchased on amazon.com or at some garden centers) * garden soil, not potting soil * permanent marker |
| Engineer a Building to Withstand a Earthquake | **Constructive and Deconstructive Processes**  None |
| Science Lab  Experiment Kits | **Physical and Chemical Change**  None |
| Biodomes Engineering | * [Biodomes Engineering Design Project Workbook: Lessons 2-6](https://www.teachengineering.org/content/cub_/activities/cub_bio/cub_bio_lesson02_activity1_bedp_workbook.pdf" \t "_blank) * 2 plastic containers (1- and 2-liter bottles with lids work well, or other inexpensive clear plastic trays, bowls, covers and lids) * seeds * soil * sand * supply of miscellaneous materials, such as pebbles, rocks, wire, small paper cups, plastic wrap, string, foil, popsicle sticks, chopsticks, etc. * Insects if available, found from outside   Classification |
| Heredity | **Inherited and Non-Inherited Traits**   * Brown paper lunch bags * Toothpicks * Jellybeans * Construction Paper |