

STEM Curriculum II



STEM is a curriculum that focus on science, technology, and engineering. In reality, children spontaneously engage in STEM activities indoors and out on a regular basis in school. With a little guidance from the teachers, they can enhance children's opportunities to engage in STEM learning and develop their critical thinking skills.

While building with blocks, children can build bridges and ramps, incorporating engineering and math. They can add a technology component by researching these on the computer. Outdoors, children could help solve the problem of getting water to a garden they helped to plant, drawing on their science and engineering knowledge. Incorporating the use of children's garden tools like rakes, shovels, and a wheelbarrow build on this activity to provide an even broader STEM experience.

STEM Activities we incorporate at our school:

- **Go on a nature walk.** A nature walk can be a great outdoor STEM activity for children. Take a reusable bag and encourage the children to collect interesting objects they see, like small round stones, leaves, seed pods, or flowers. When the children gets back indoors, they can sort treasures into categories, such as color, texture, size, and shape. Skills used: math and science
- **Build ramps to test which cars, balls, or marbles go the fastest.** Use a board, sheet of cardboard, or small table with one side elevated to make a ramp. Try rolling a variety of objects, two at a time down the ramp to see which is fastest. Record your findings on a chart. Skills used: engineering and math
- **Set-up building activities with paper or plastic cups.** Give a challenge such as, "How high can you make a tower of cups?" Measure each tower and record their height. Skills used: engineering and math
- **Play with water.** Water is a rich STEM material and water play activities is a great way to engage children. Provide tools to experiment with like a turkey baster, empty dish detergent bottles, plastic measuring cups, etc. to fill and compare. Skills used: math and science
- **Research how something works.** Skills used: technology and engineering

The possibilities for STEM education are endless. Children love to experiment, combine new substances, build, knock down, collect, sort, and have fun while learning.

<http://naturalstart.org/feature-stories/engaging-children-stem-education-early>

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