

21

Ways to Fuel

# STEM IMAGINATION

In Your Classroom

1. **Have an invention box.** Let your kids use duct tape, empty paper towel rolls and empty cardboard boxes to build robots, houses and other feats of engineering.
2. **Engineer a "crystal" city.** Let your students build buildings, monuments and parks out of sugar cubes.
3. **Decorate with color.** Use colored water to turn white carnations a rainbow of colors. Use the newly colored flowers to decorate your classroom.
4. **Hold a "tallest tower" competition.** Put kids in groups and let them try different configurations to see who can design the tallest tower out of colored plastic cups.
5. **Make a STEM bored jar.** Fill a small jar with simple STEM challenges. Whenever students are finished early with an assignment, have them choose one and see if they can complete the challenge.
6. **Go on nature hikes.** Once a week spend a half hour walking around outside and observing the schoolyard with your five senses.
7. **Get hands-on with math.** Use buttons, fuzzy balls, marshmallows, raisins or dry beans to teach any new math concept.
8. **Grow a classroom herb garden.** Use egg cartons or small containers to grow herbs like basil, cilantro and mint on your classroom windowsill.
9. **Create a STEM inspiration corner.** Fill a bookshelf or corner of your classroom with books, pictures and ideas that inspire STEM imagination.
10. **Let them tinker with computers.** Pick up some old circuit boards and computer parts. Let the kids tinker with the parts, encouraging them to take them apart, and put them back together.

*Continued on next page*

# 21

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- 11. Solve the mystery in the box.** Take one or more shoeboxes and cut a small hole in each one large enough for a small hand. Cover the opening with a paper flap. In each box, add one or more small items—pinecones, matchbox cars, magnets, etc. Challenge your students to use their sense of touch to make observations about the mystery objects.
- 12. Make necklaces.** Simple pipe cleaners and beads can do the double duty of teaching math (patterns and counting!) and allowing kids to get creative.
- 13. Go on a scavenger hunt.** Head outside to search for certain types of plants, rocks or insects.
- 14. Head to the hardware store.** Have your kids use screws, nuts and bolts to connect paper or cardboard and create buildings or designs.
- 15. Take your tablets for a walk.** Take your class for a walk and document their observations in a field journal with words or photos.
- 16. Talk it out.** Create opportunities for kids to talk about their ideas by putting them in groups of 2-3 when using tablets or other tech devices.
- 17. Create playdough planets.** Show photos of the planets and ask kids to observe color, size and texture. They can recreate them using playdough, glitter, rocks, sand, pipe cleaners, etc.
- 18. Use manipulatives from nature.** Write math problems (i.e.,  $2 + 4$ ) on the ground with sidewalk chalk, and let kids find pinecones, rocks or leaves to represent the solution.
- 19. Go old school map quest.** Have your kids design a map of your neighborhood. Then, have them add new features (a pool, perhaps?) to make it better.
- 20. Let them eat grapes!** Let kids use toothpicks and grapes to create their own geometric shapes. After they're done, they can have a healthy snack!
- 21. Make a nature exploration center.** Set up a table in your classroom with dried leaves and flowers, rocks, pieces of wood, acorns and other nature tidbits. Toss a few magnifying glasses on the table and let the kids explore.