



Grades K–5

Elementary Curriculum

Inspiring Young Minds with Hands-On Engineering

Youth Engineering Solutions (YES) educates the next generation of problem solvers and engineers—because engineers shape the world!

YES Elementary's standards-aligned K–5 units ignite curiosity by engaging students in real-world engineering challenges. Using the Engineering Design Process, they innovate, make connections across STEM fields, and refine solutions through hands-on investigation—building critical thinking and resilience.



Sample Unit:
Engineering Nightlights
Students investigate how materials interact with light as they engineer nightlights that meet user preferences and communicate a message.

Program Highlights

- **Standards-aligned units** for grades K–5.
- **Research based:** backed by three decades of study and development. Classroom tested, educator approved, and proven effective.
- **Hands-on learning:** students use the Engineering Design Process to innovate their design solutions.
- **Designed for all learners:** relatable contexts, multimodal activities, language development supports, Spanish translations.
- **Fits any budget:** free and low-cost resources.
- **Cross-curricular connections:** science, math, and ELA.



Museum of Science.



yes.mos.org

Learn more: yes@mos.org, 617-589-0230

YES Elementary Curriculum

Each unit contains nine 45-minute lessons.

Lower Elementary (K-2)



Engineering Sun Hats

Students explore the cooling effects of shade.



Engineering Trash Collectors

Students design scoops to remove trash from a pond.



Engineering Nightlights

Students investigate how materials interact with light.



Engineering Pumpkin Pollinators

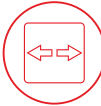
Students engineer hand pollinators that move pollen.

Upper Elementary (3-5)



Engineering Magnetic Dog Doors

Students explore magnetic attraction and repulsion.



Engineering Safety Vests

Students use circuits to create a communication system.



Engineering Plastic Filters

Students reduce the impact of plastic on the marine ecosystem.



Teach with Ease

Access Free Downloadable Resources

- Digital Teacher Guide
- Illustrated Story or Comic
- Slides, Vocabulary Cards, Engineering Notebook, Family Resources, Video Playlist, Posters, Spanish Translations, and more!

For Purchase

- Materials Kit for 24 to 30 students
- Full-color Teacher Guide plus printed classroom resources

Educator Empowerment

Professional Learning Workshops Available!

“This program felt so different than the more traditional academic tasks students do in their classrooms. **It allowed students to see themselves as new kinds of learners and feel success in that.**

I imagine this confidence will transfer to other learning they do.”

— Elementary Educator

STEM is for Everyone!



Free downloads



Purchase materials



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