

MODULE

**Engineering Towers**

- Recognize and observe the relationship between design and tower strength by testing the finished tower.
- Use a worksheet to create and illustrate a specific design for a tower.
- Increase knowledge of engineering concepts and vocabulary by reading available resources.

SESSION FOCUS

- 1 Designing Your Tower
- 2 Making Your Pattern
- 3 Construct Your Tower
- 4 Construct Your Tower
- 5 Construct Your Tower
- 6 Construct Your Tower
- 7 Assembling Your Tower

**Dear Parent,**

As parents and teachers, we realize it can be hard to get a child to discuss what he or she is learning in school. We hope the information provided on this page will assist you in communicating with your child about what he or she is learning.

Your participation in the learning process is extremely important, as you are your child's best teacher.

For the next few days, your child will be learning about designing and building towers while completing the *Engineering Towers* Module.

**Words students will learn in this Module include:**

- abutment
- arch
- civil engineer
- compression
- keystone
- span
- substructure
- superstructure
- suspension structure
- tension

**Questions for Discussion**

During the course of this Module, your child will be assessed on key concepts and activities. You might want to discuss these concepts and activities with your child. He or she will be asked to:

- Explain the purpose of a structural truss. (*A truss is made up of a series of triangles, which add strength and support to a tower.*)
- Demonstrate an understanding of diagonals and triangles through his or her thumbnail sketches. (*Your child should understand that diagonals and triangles provide strength and support.*)
- Defend his or her choice of which thumbnail sketch to use for the final design. (*Have your child sketch his or her tower design and explain why he or she chose that design.*)

Student: \_\_\_\_\_

Parent: \_\_\_\_\_