



**SYNERGISTIC
SYSTEMS**

A DIVISION OF PITSCO, INC.

PARENT BRIEFING

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 Constructing Your Tower

4 Constructing Your Tower

5 Constructing Your Tower

6 Constructing 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.

For the next few days, your child will be learning about designing and building towers while completing the Engineering Towers module. As your child's best teacher, your participation in the learning process is extremely important.

Words students will learn in this module include:

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

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 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.)*



Instructor: _____