

# TECHNOLOGY ACTIVITY

## Paper Cell/Foundation

### **NATIONAL STANDARDS**

#8 – students will develop an understanding of the attributes of design.

#9 – Students will develop an understanding of engineering design.

#10 – Students will develop an understanding of the role of troubleshooting, research and development, invention and innovation, and experimentation in problem solving.

#11 – Students will develop abilities to apply the design process.

#20 – Students will develop an understanding of and be able to select and use construction technologies.

### **NATIONAL BENCHMARKS**

#### **(Grades 9-12)**

#8 – H,I,J,K

#9 – I,J,K,L

#10 – I,K,L

#11 – M,N,O,P,Q,R

#20 – L

#### **(Grades 6-8)**

#8 – F,G

#9 – F,G,H

#10 – F,G,H

#11 – H,I,J,K,L

#20 – G

### **ACTIVITIES**

- Students will use sketching techniques to develop a working drawing for development of cell/foundation.
- Students will sketch a minimum of (3) sketches before choosing one for the final “Best” design.
- Students will build and develop a working prototype using geometric shapes.
- Students will stay within prescribed parameters when building their cell/foundation.

### **SHOW ME STANDARDS**

#### **Performance Standards:**

Goal #3 – 1,2,3,4,5,6,7,8

#### **Knowledge Standards:**

Mathematics # 2,4

Science # 7

#### **PROBLEM SOLVING STEPS**

1. Define the problem
2. Gather information
3. Set Goals
4. List Solutions
5. Select the Best Solution
6. Apply the Best Solution
7. Evaluate

### **ASSESSMENT**

- Cell/Foundation conforms to all given parameters
- Sketches were followed in design/construction of cell/foundation
- Group worked cooperatively as a team
- Cell/Foundation held weight above 5lbs
- Sketches and written problem solving steps handed in
- Clean-up was done to satisfaction of teacher