WTEA TECHNOLOGY FAIR
SHARED ACTIVITY OR PROJECT

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ACTIVITY DESCRIPTION:

The main purpose of the following handouts is to check the students understanding of the concepts and processes that are presented in all the units taught in class.

UNIT SUMMARY WORKSHEET
At the completion of each unit, the students are required to fill out and complete the unit summary worksheet. What this worksheet attempts to do is have the students think about the concepts and processes used in the unit. The unit summary worksheet is included in the grading process of all activities taught in class.

PROJECT EVALUATION
Enclosed you will find a modified version of a rubrics style evaluation. In the past, I have developed the standard style of rubrics and found them to be not only boring for the student, but the teacher as well. The modified version uses both pictures and proficiencies with a humorous touch. Both the students and the teacher will fill out the evaluation by circling the proficiency they met on each category.

9th GRADE MANUFACTURING
SUPER STRUCTURE EVALUATION

Name _____
Hour _____

1. Front sketch.
   - straight lines
   - all pieces labeled with letters
   - neat and precise drawing
   - easily understood

wow	got it	not yet	getting started	oop's!
5	4	3	2	1

2. Materials calculation sheet.
   - complete list
   - easily understood
   - neat and accurate

wow	got it	not yet	getting started	oop's!
5	4	3	2	1

3. How do the sides come together.
   - sides all match up.
   - no missing pieces of wood.
   - all parts touch each other.

wow	got it	not yet	getting started	oop's!
5	4	3	2	1

4. Used only 144 inches of wood or less.

wow	got it	not yet	getting started	oop's!
15	10	5	3	0

5. 1x1 (inch) minimum at the top of the structure.

wow	got it	not yet	getting started	oop's!
5	4	3	2	1

6. 3x3 (inch) at the bottom of the structure.

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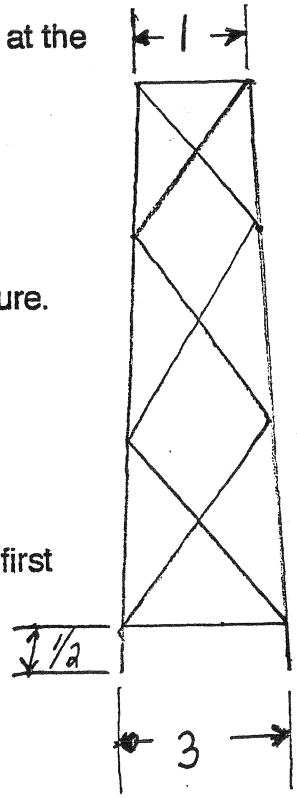
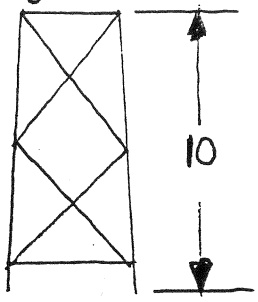
5	4	3	2	1

7. 1/2 inch high to the first structure member.

wow	got it	not yet	getting started	oop's!
10	8	6	4	2



8. Minimum height of 10 inches.



wow	got it	not yet	getting started	oop's!
10	8	6	4	2

9. Amount of glue used.
- no puddles
- no excessive glues runs
- no excessive amount of wax paper remained on the tower.

wow	got it	not yet	getting started	oop's!
10	8	6	4	2

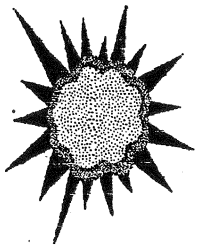
10. Unit summary worksheet completed.
- each question explained in detail
- sheet filled out completely
- proper grammar used

wow	got it	not yet	getting started	oop's!
20	15	10	5	0

11. Did you get along with the other classmates during this project.
- no arguing with the teacher or classmates
- worked together
- help other peers
- followed classroom rules
- followed all the teachers directions

wow	got it	not yet	getting started	oop's!
20	15	10	5	0

13. Weight supported _____
Points earned for weight held (20 points possible) _____
(see the chart for the break down in points)



TOTAL POINTS POSSIBLE (135) _____

+

Bonus points for extra weight held
1 point per pound (20 maximum) _____

TOTAL POINTS EARNED _____

Break down chart for weight held

total weight held	50	45	40	35	30	25	20	15	10	5	0
Points earned	20	18	16	14	12	10	8	6	4	2	0

Unit Summary Worksheet

Name _____
Hour _____

Unit title _____

1. What did I learn from this unit?
   (information, facts, procedures, processes and equipment used)

2. How will the information and or activities discussed in this unit help me in the future?

3. What did I like about this unit?

4. What would I change about this unit?

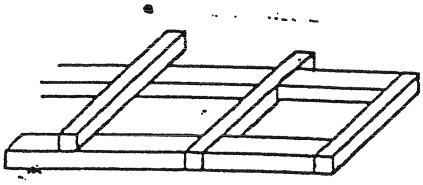
5. Now that you have completed this unit, list several jobs / careers in manufacturing that use the skills and knowledge that were explored in this unit.

TOWER SPECIFICATIONS

The tower you construct must meet the following specifications:

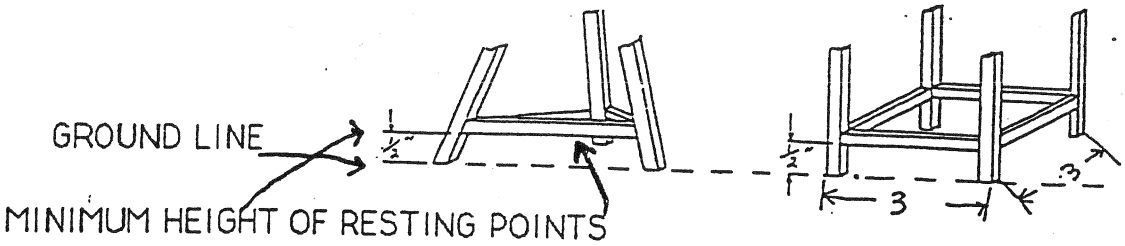
1. Constructed of not more than 12 ft. of 1/8 in. square balsa wood.
2. The wood must be glued together. No other fasteners may be used on the tower to hold it together.
3. The wood can NOT be laminated. (One piece glued along the length of another piece. See example below.)

LAMINATING - UNACCEPTABLE CONSTRUCTION



BEANS CROSSING - ACCEPTABLE CONSTRUCTION

4. The structure must rest on 3 or 4 legs with first structural member 1/2 inch in from bottom or structure. (See example below)



5. Minimum height of the tower 10 in.
6. Minimum width of the bottom of the structure is 3 x 3.
7. Your tower must support a minimum of 50 lb..
8. The top of your tower will have to be flat in order to support this weight with a minimum width of 1 x 1 in.

FORMULA USED TO CALCULATE TOTAL WOOD USED

(part) part length x #of pieces x # of sides = total wood used