

+Make – up packet week of 9-15-14

## Foundations of Tech (Catron)

1. Complete Free standing tower project and fill out TSM (graphic organizer for project)
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## ADV Tech 2

1. Egg Drop project (same As LAST WEEK)

# Structural Technology

## Free-Standing Tower

- Objectives:** Students will demonstrate knowledge of the problem-solving procedure.  
Students will demonstrate the ability to:
- Design a tower
  - Accurately construct a tower
  - Analyze test data in Feedback Loop.
  - Solve a problem using the following Science and Math Concepts:  
Forces, Gravity, Compression, Stress, Tension, Length  
Adhesion and Strength.
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**Problem:** Design and construct the tallest free-standing paper tower.

### Rules and

- Limitations:**
- 1) The tower will be constructed from one sheet of paper (8 ½" x 11") and a maximum of 24" of masking tape.
  - 2) No additional material may be used.
  - 3) The tower must be free-standing.
  - 4) The will be determined by measuring the distance from the floor to the highest point of the tower.
  - 5) The final tower must be ready for testing by the end of the class period.

- Resources:**
- |                            |   |
|----------------------------|---|
| <b>People:</b>             | Students will work in teams of two.   |
| <b>Information:</b>        | Facts and knowledge the team members possess or obtain. Instructions from the teacher.  |
| <b>Materials:</b>          | <ul style="list-style-type: none"><li>- 1 sheet of (8 ½" x 11") colored paper per team to be used for the final tower.</li><li>- 2 sheets of (8 ½" x 11") white paper per team to be used for practice towers.</li><li>- 2 feet (24") of masking tape total per team to be used for the practice and final tower.</li></ul> |
| <b>Tools and Machines:</b> | <ul style="list-style-type: none"><li>- Scissors</li><li>- Rule or straight edge</li></ul>  |
| <b>Time:</b>               | Class Period (based on a 90 minute class)   |
| <b>Energy:</b>             | Human Muscle Power  |
| <b>Capitol:</b>            | Provided by the school  |

**Evaluation:** The tower with the greatest height will be the winner.

Name of Project  
Type of Technology  
Definition of

Resources  
People -  
Info -  
Tools / Machines -  
Energy -  
Capital -  
Time - exact  
Materials -

Name (s)  
Period  
Date

INPUT  
Problem  
Need  
Objective

Process

- 1.
- 2.
- 3.

Step by step!

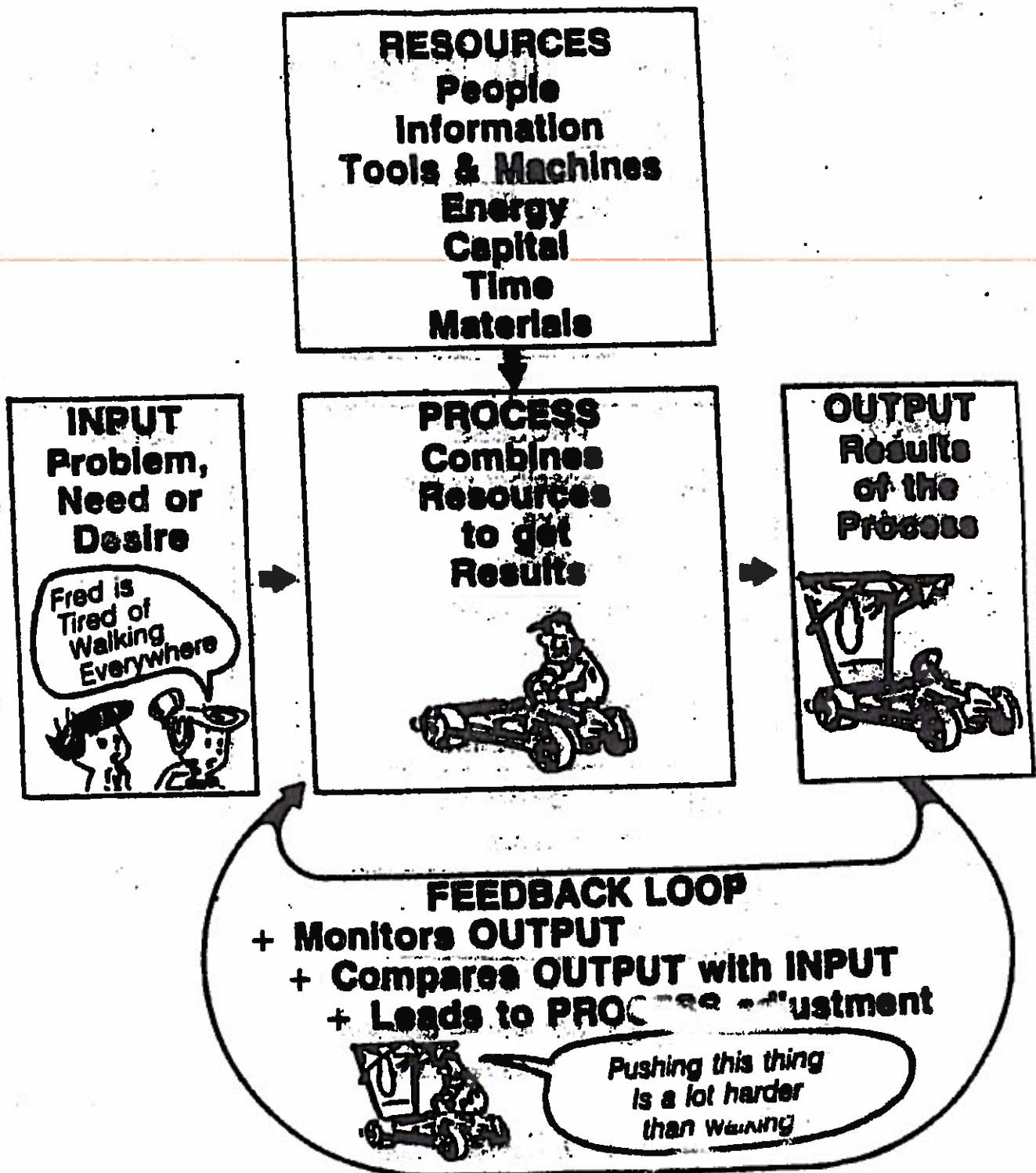
OUTPUT  
Results  
The final  
Product  
"What you  
ended up  
with"

FEEDBACK

"I had hoped to ..."  
restate input  
What went wrong?  
How would you change things?

How could you  
improve your  
output?

# Technology Systems Model



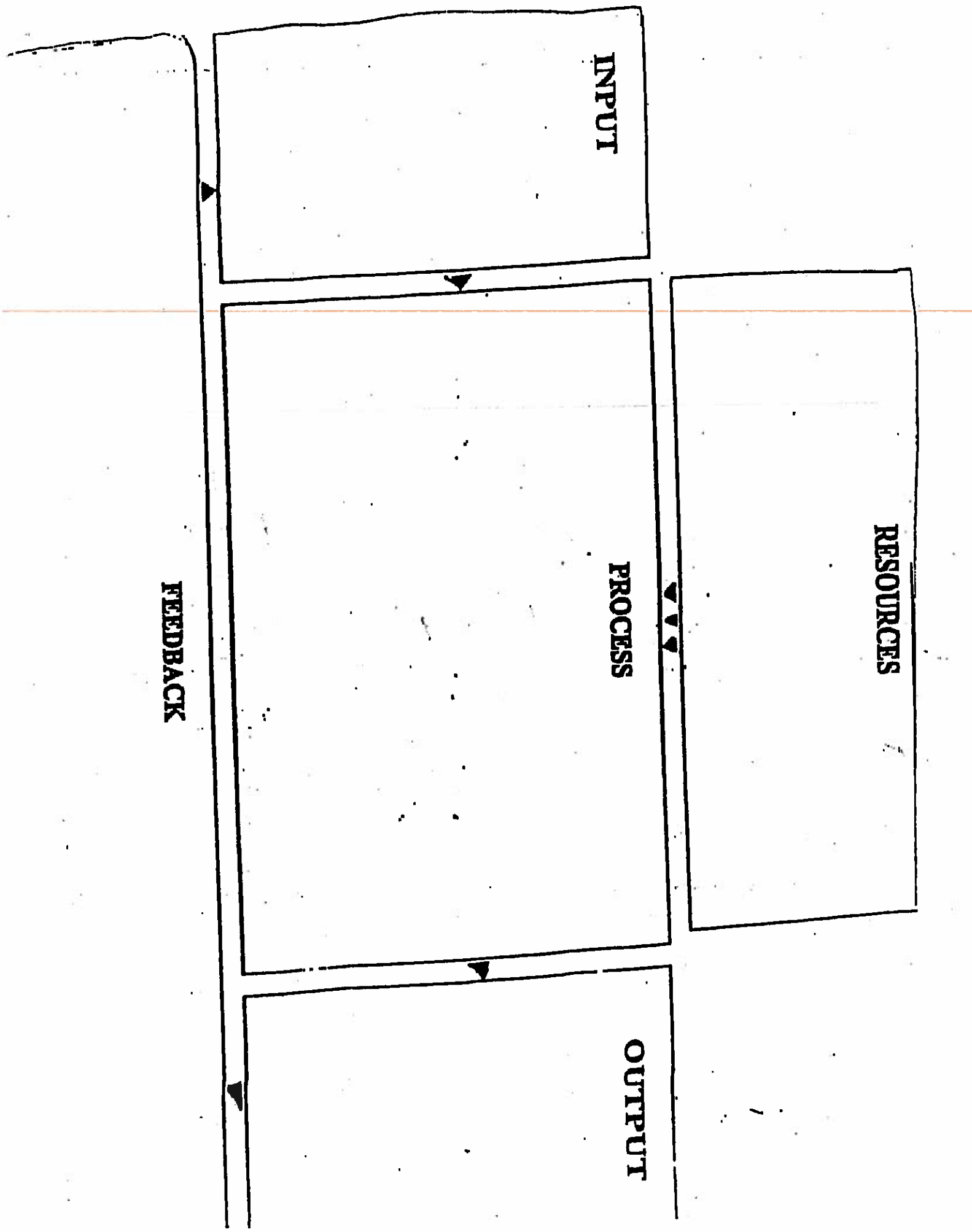
**RESOURCES**

**INPUT**

**PROCESS**

**OUTPUT**

**FEEDBACK**



Research

Citations

Sketches