Lessons Learned about Model Building

Teacher Help Session

Teacher: Nick Balmoria

Engineer Mentor: Maria Lee

Blackhawk MS
Web Sites:

www.futurecity.org

www.etcs.ipfw.edu/fcc/
PLANNING

1. Set up a Calendar
2. Set up Target Dates
3. Pick 2 Student Leaders
4. Break Down the 5 parts into “Separate Teams”
5. Pick a Student Leader(s) for each “Team”
Sources for Extra Help

- Lead Teacher
- Engineer(s)
- Other Teachers
  - Language Arts
  - Math
  - Gifted & Talented
  - Tech Ed
- Parents
“Rethink Runoff: Design clean solutions to manage storm water pollution.”

700- 1,000 words
The essay must include several references.
Start Early with Ideas

1. How much of the city do you want to show? 1 or more levels?
2. What kind of scale do you want to use? Math Teachers?
3. What kind of “objects” do you have in your recycled material?
4. Ask classes & teachers to help with re-cycled material - give examples
Start Early with Ideas

- Use the Rubric to help focus the students
- Brainstorm ideas
- Have students draw out an idea on butcher paper.
- Does the design show “City Regions”? 
- Vote for best design
Today:
1. Essay Rubric – Breakdown “Points”
2. Start moving into over to “Points”
3. Collect/Organize Pieces
4. From B – Base Board – Paint / 2x4” Pieces
5. From – Drawing of City – 1st Draft

41 in / 104.19 cm

Bin / 45.72 cm

1 mile = 1609.344 kilometers
5 miles = 8046.72 kilometers
1 inch = 2.54 centimeters

25” (w) x 50” (l) x 20” H
Build A City Model

What about a **Moving Part**?
1. Is it battery **powered**?
2. What about a small **motor**?
3. **Noise** level of motor/moving part?
4. Is it easy to get to & **repair**?
5. Is the unit **secured**?
6. Is it “**connected**” to the city?
4 Moving Parts
Build A City Model

Be Flexible:
1. Student ideas may not be thought out thoroughly. “Things don’t always work…”
2. Don’t “throw away” ideas.
4. Assume you will WIN! Build your model thinking it will be shipped!
What Did I Learn?

1. Teachers have similar issues
2. Students have fun sharing their stories
3. The Models are Excellent, Detailed and made of an assortment of different materials.
4. The Moving Parts can be amazing!
5. The Judges will ask more Difficult & Technical Questions about the models.
6. Time Management/ Painting skills/soldering/ Group dynamics
7. Students had a LOT of FUN!
Special Note for Regional Winner

Models are shipped to Washington DC

I used: PakMail on Dupont Rd (Behind Casa's)

1. Ship a simple “Repair Kit” with model
2. Ship Presentation material also
3. You can make Repairs in DC
2002 City: Simtopia

Final place: Unknown
2012 City: Kronos

2nd Place