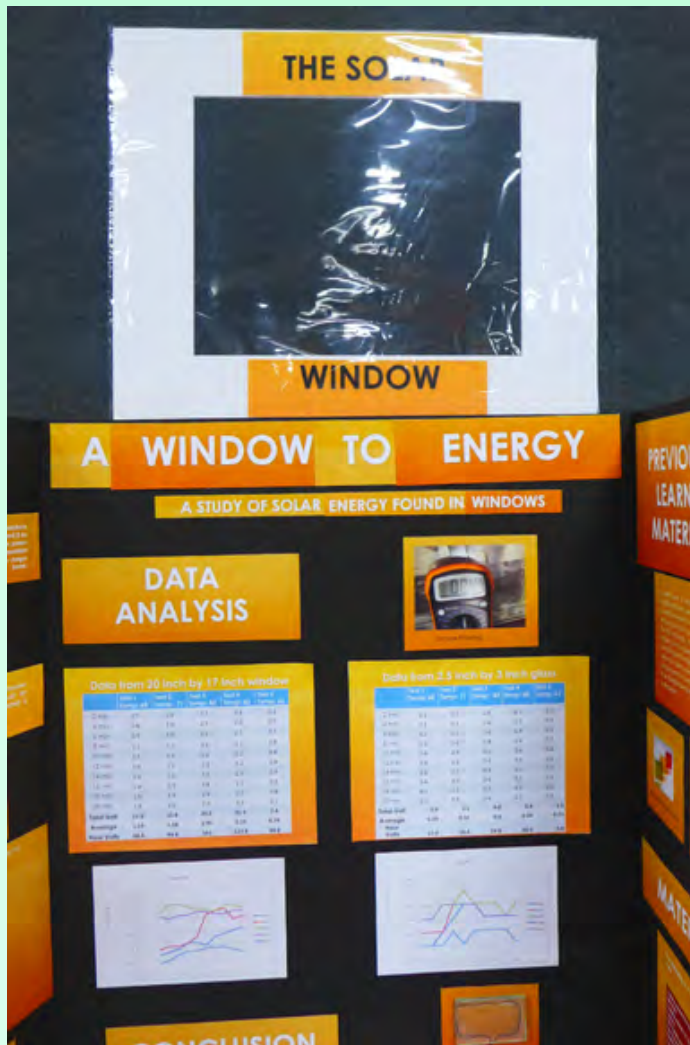
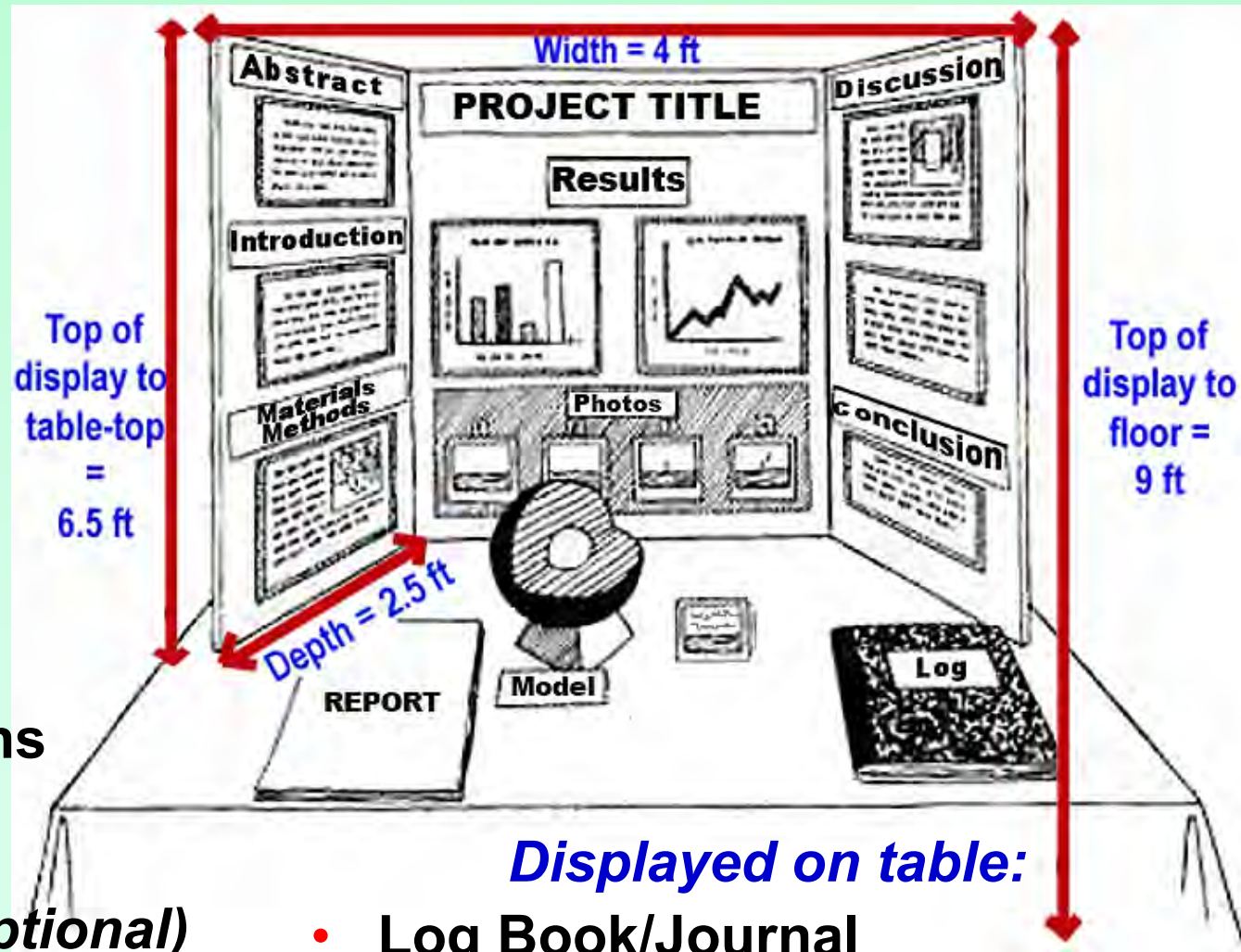


# How to Create Award-winning Displays



# Mandatory Sections (Sr)

- Abstract
- Introduction
- Materials & Methods
- Results
  - Data Tables
  - Graphs
  - Observations
- Discussion
- Conclusion (*optional*)
- Name/school on back



*Displayed on table:*

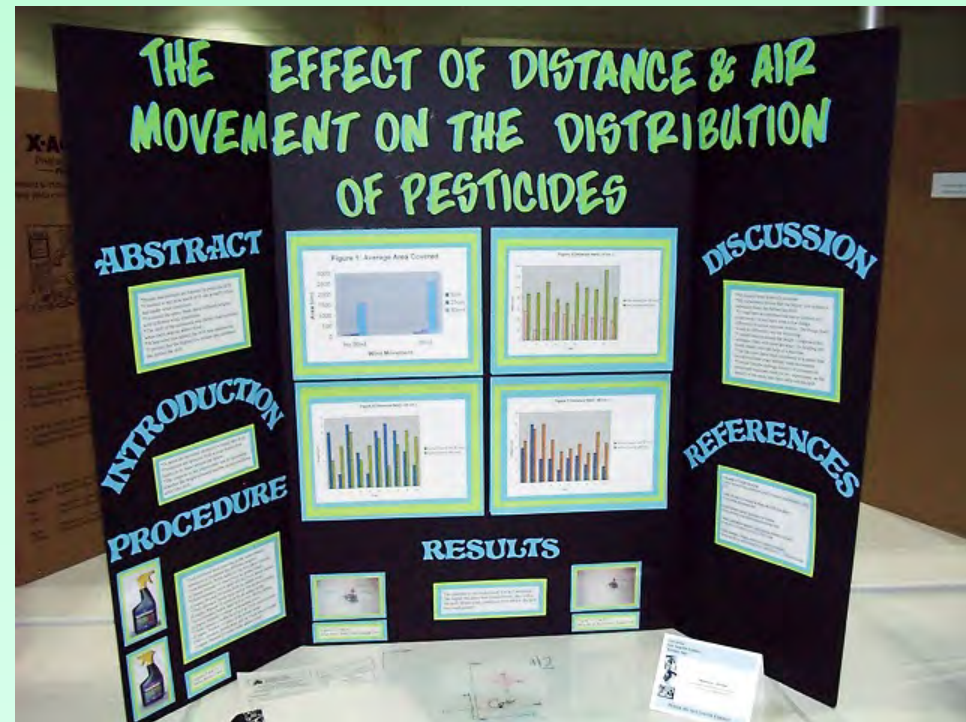
- Log Book/Journal
- Research Report w/References
- Acknowledgements (*optional*)



# Mandatory Sections (Jr)

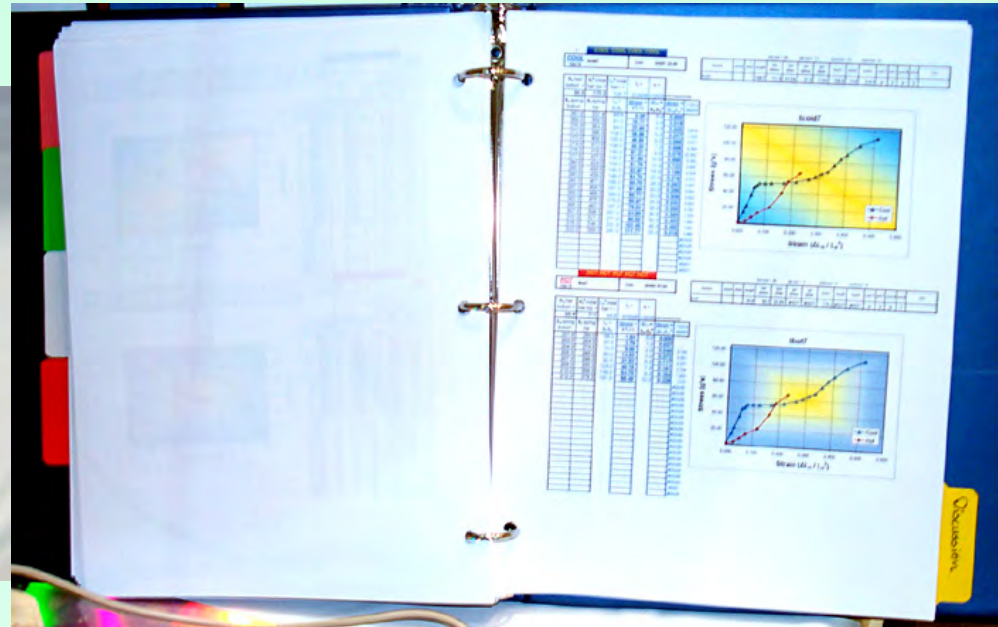
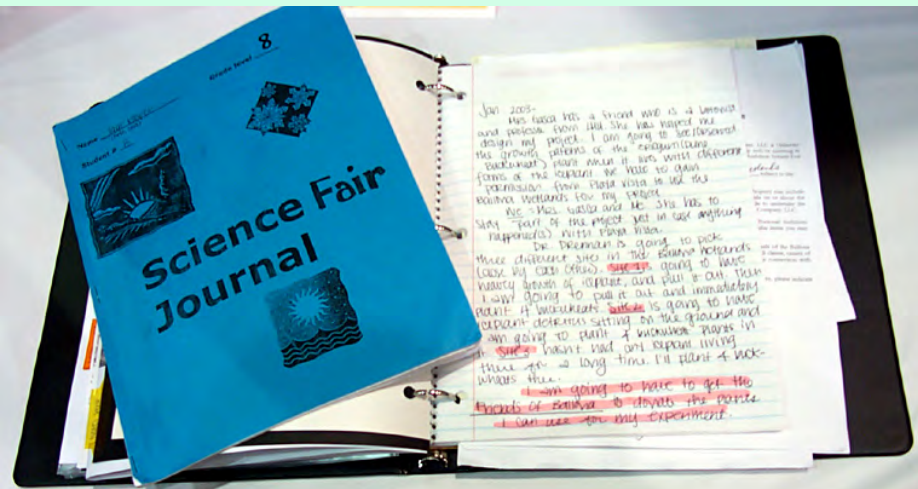
*(Jr. Division has more latitude in section titles...)*

- Abstract
- Problem & Hypothesis
- Introduction/Background
- Materials & Methods/Procedure
- Results (Data)
  - Data Tables & Graphs
  - Observations
- Discussion
- Conclusion (*optional*)
- Acknowledgments (*optional*)
- Name & school on back
- *Displayed on table:* Log Book/Journal Research Report w/ references



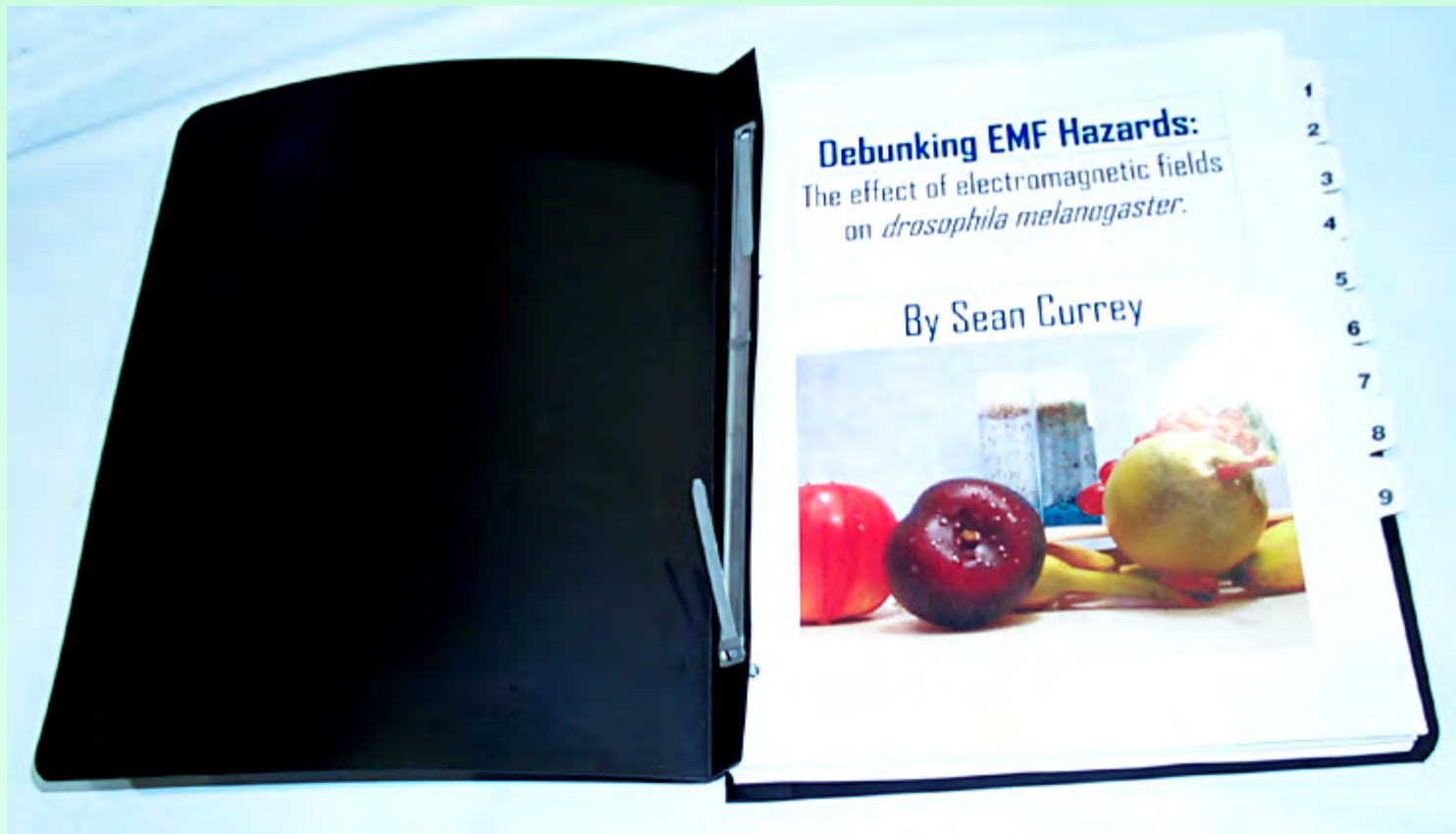
# Have Your Log Book Present

- A "journal", detailing all activities
- Include actual data collected
- Additional relevant materials



# Include a Formal Report

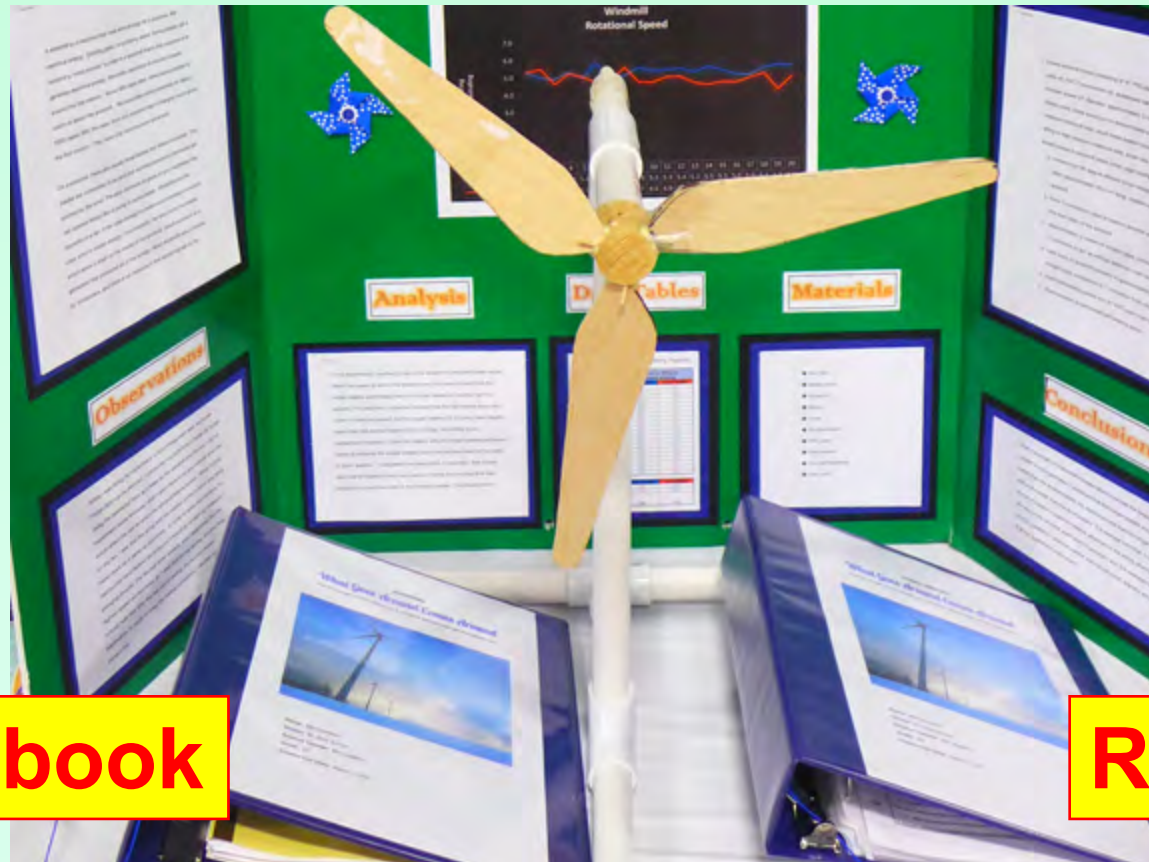
- ALL reports should be typed
- Follow format and sequence





# Display All Elements

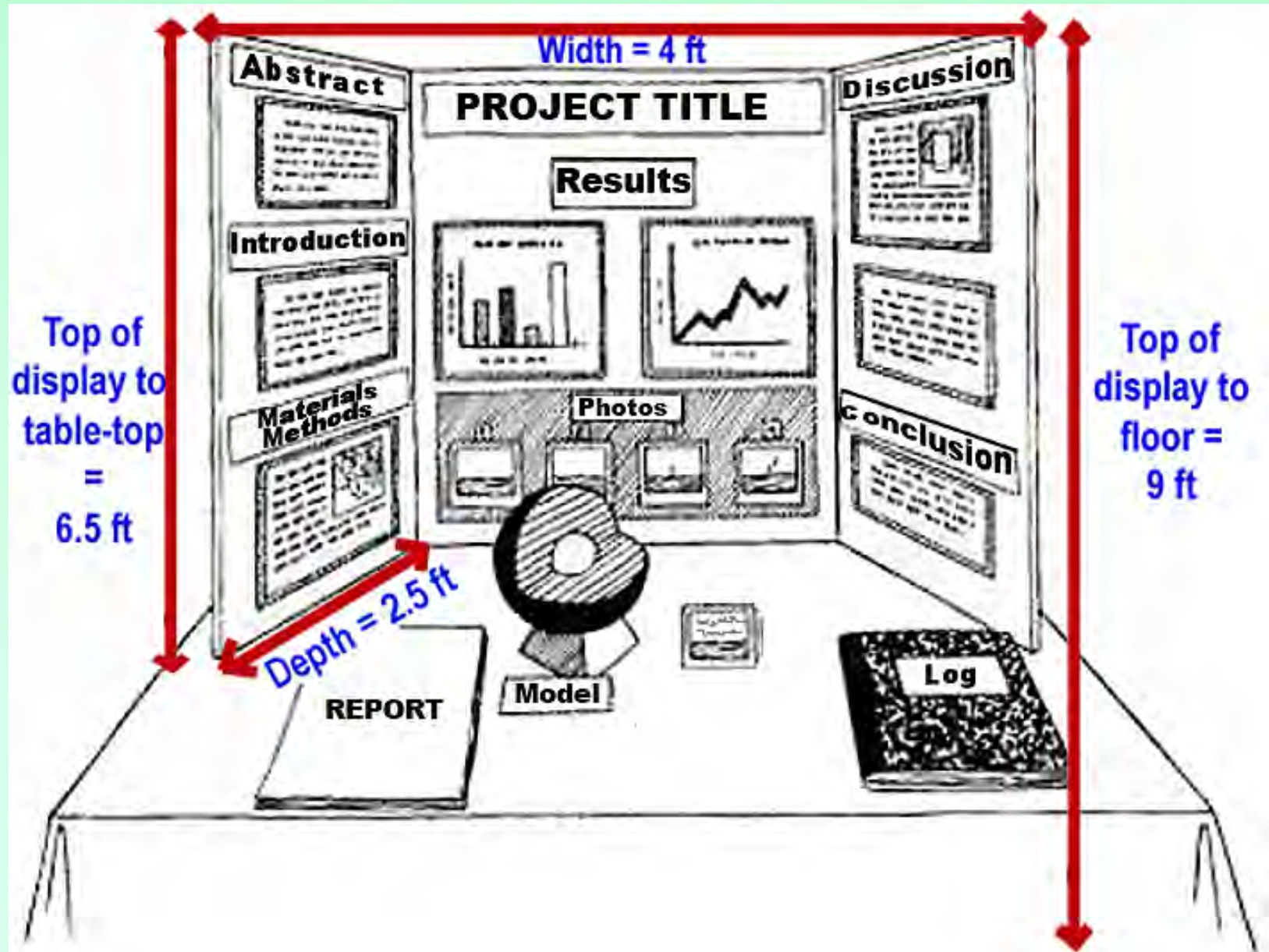
- Log Books/Journals should follow proper format and sequence



# The Display Board

- **Maximum Size:**
  - **2.5 ft deep** (*front to back*),
  - **4 ft wide** (*side to side*)
  - **6.5 ft high** (*project on table*)
  - **9 ft high** (*project on floor*)
- **3-sided, hinged**
- **Must be sturdy, able to stand alone**
- **Name & School on back**

# Display Board Sizes





# Too Tall To Read

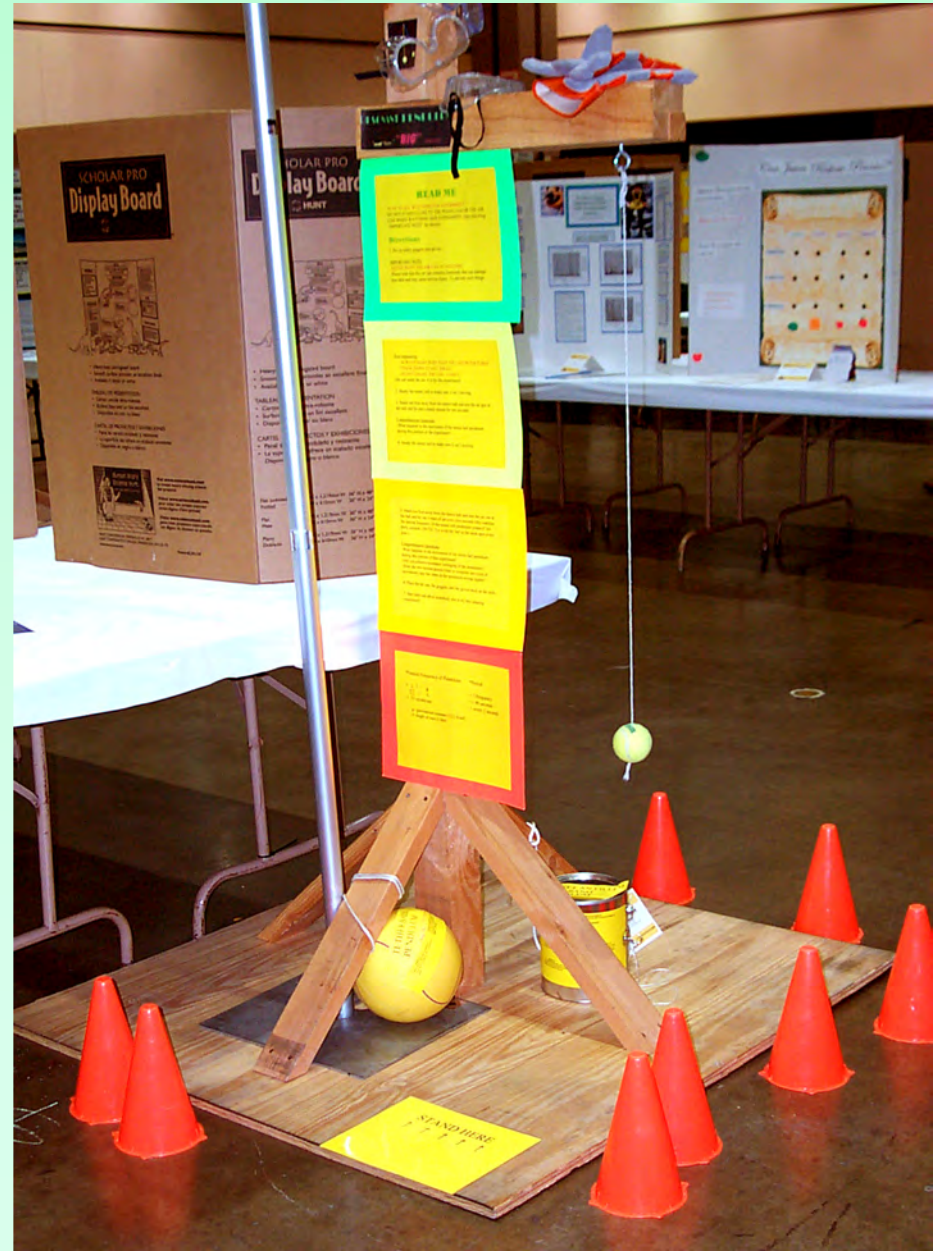


# Too Small



# Floor Displays

- Must be safe and keep to height requirements

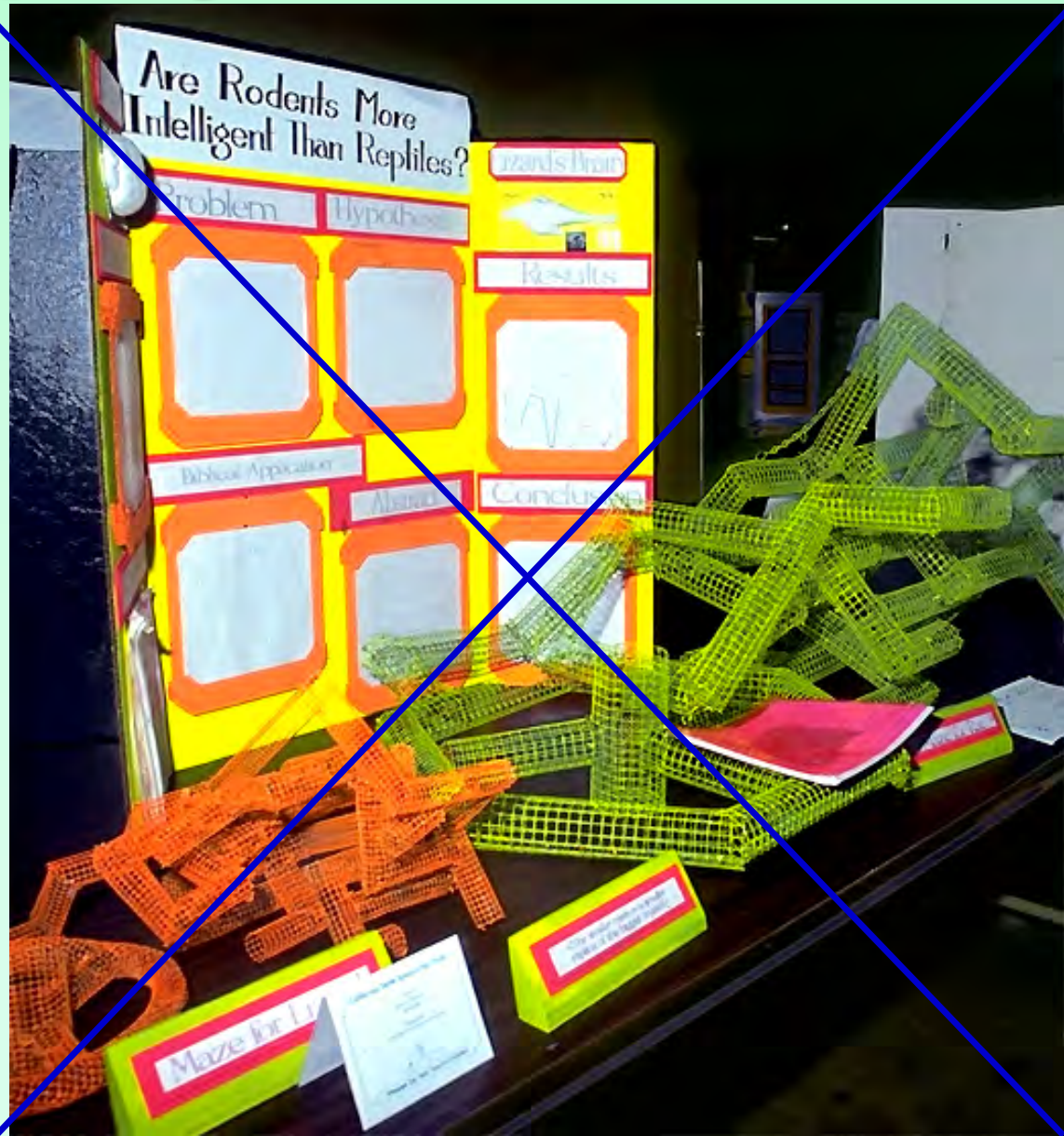




# Display Size

- Stay within fair space requirements
  - Board size
  - Table size

*You cannot spill over onto another student's project area, even if they are "no shows."*





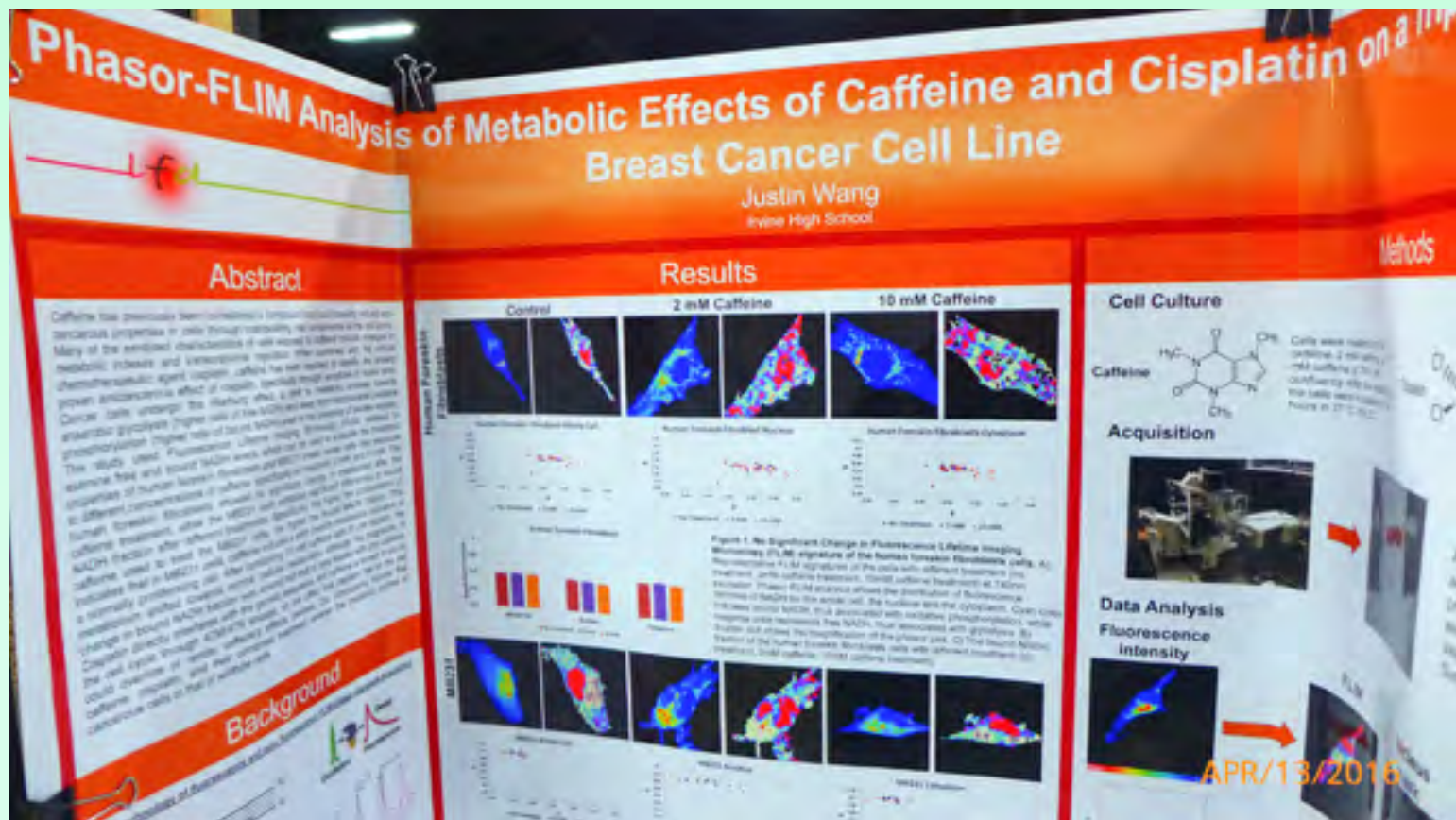
# Construction

- Display should **stand alone**
- Pieces should **NEVER** fall off!



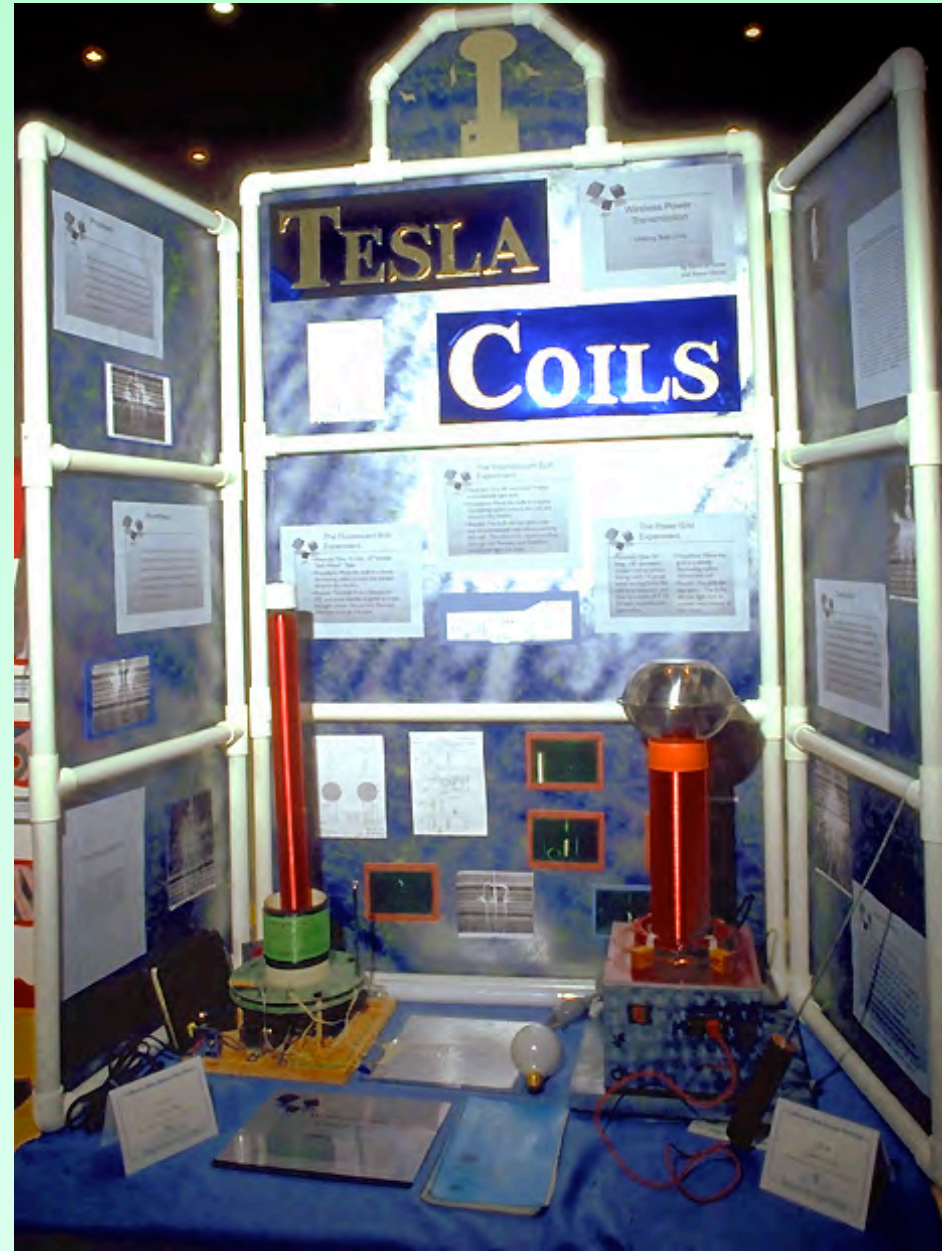
# Common Materials

- Foam Core Board      Plywood or particle board
- Colored Cardboard



# Uncommon Materials

- PVC Piping
- Lattice Fencing
- Peg-board
- Plastic





# Titling Size & Content

- **Main Title:** *3+ in*
- **Subtitles:** *2+ in*
- **Text:**
  - **14+ font**
  - **Bold**
  - **Concise**
  - ***Understandable***

JR exhibit  
example

## QUESTION

How will atmospheres with carbon dioxide concentrations of 700ppm and 1400ppm affect *Mentha piperita*?

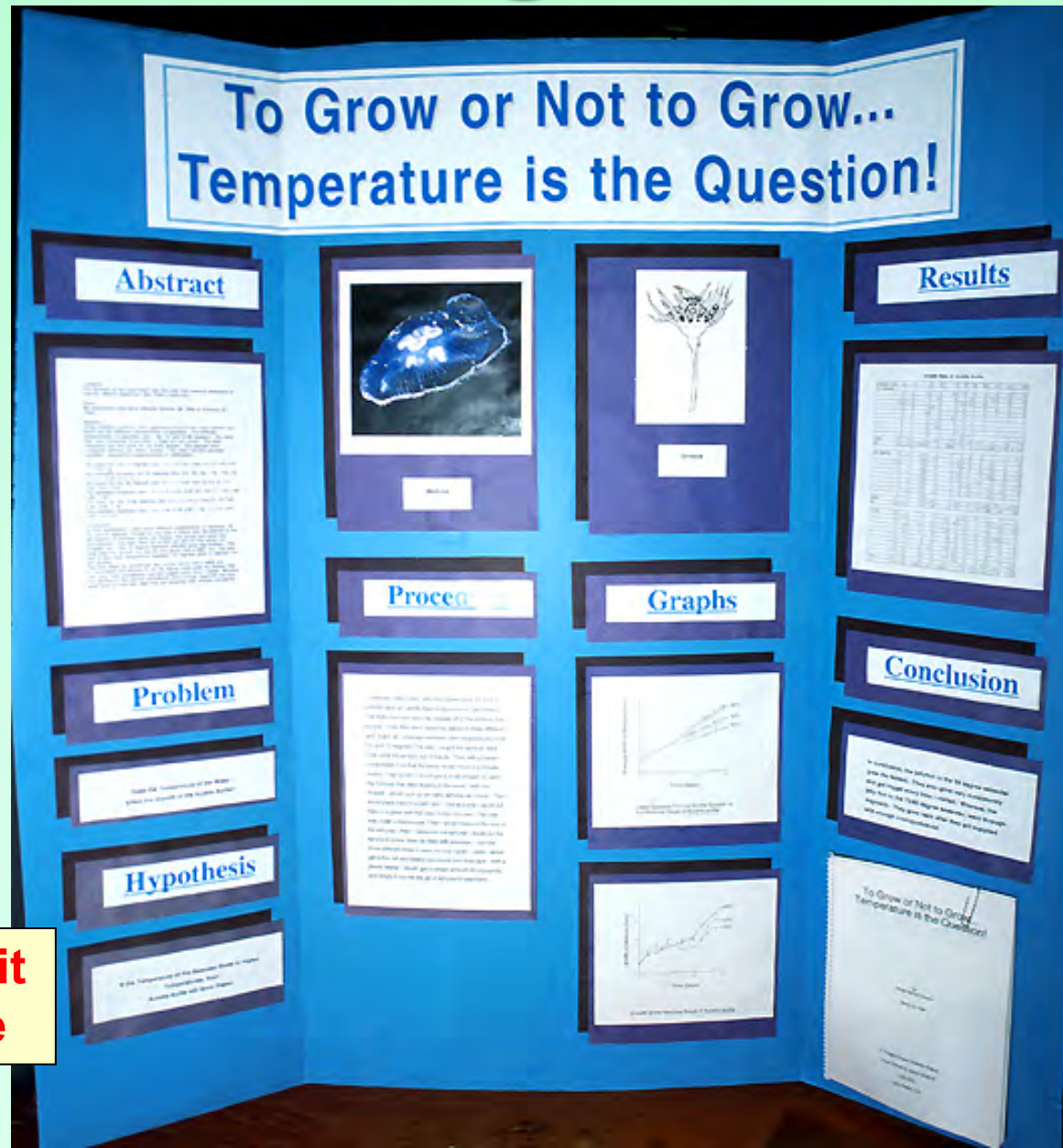
## HYPOTHESIS

I think that due to the higher amount of carbon dioxide in the atmosphere, the plants will perform photosynthesis at a faster rate thus increasing their growth rates. This, in turn, will make them larger and more plentiful.

# Formatting

- Make sure all sections are neatly & clearly displayed
- Be concise

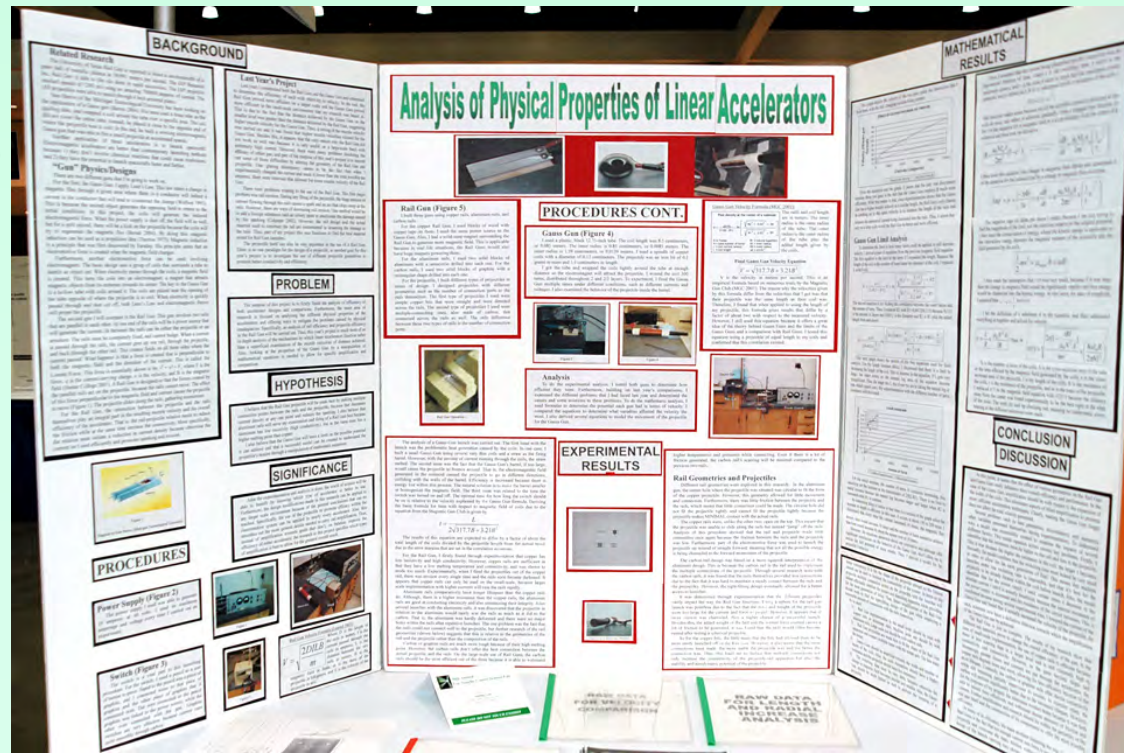
JR exhibit example



# Be Selective

- *Don't put **EVERYTHING*** from your report on to the display
- The report is there to read...

***Don't overkill***

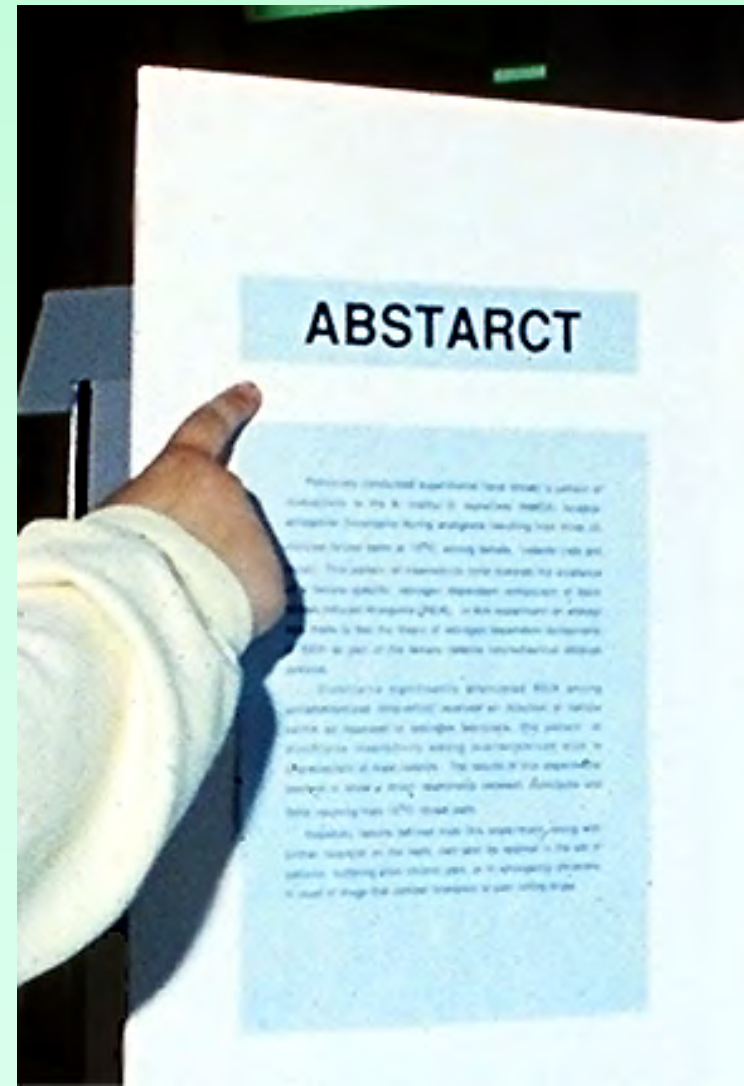




# Titling and Text

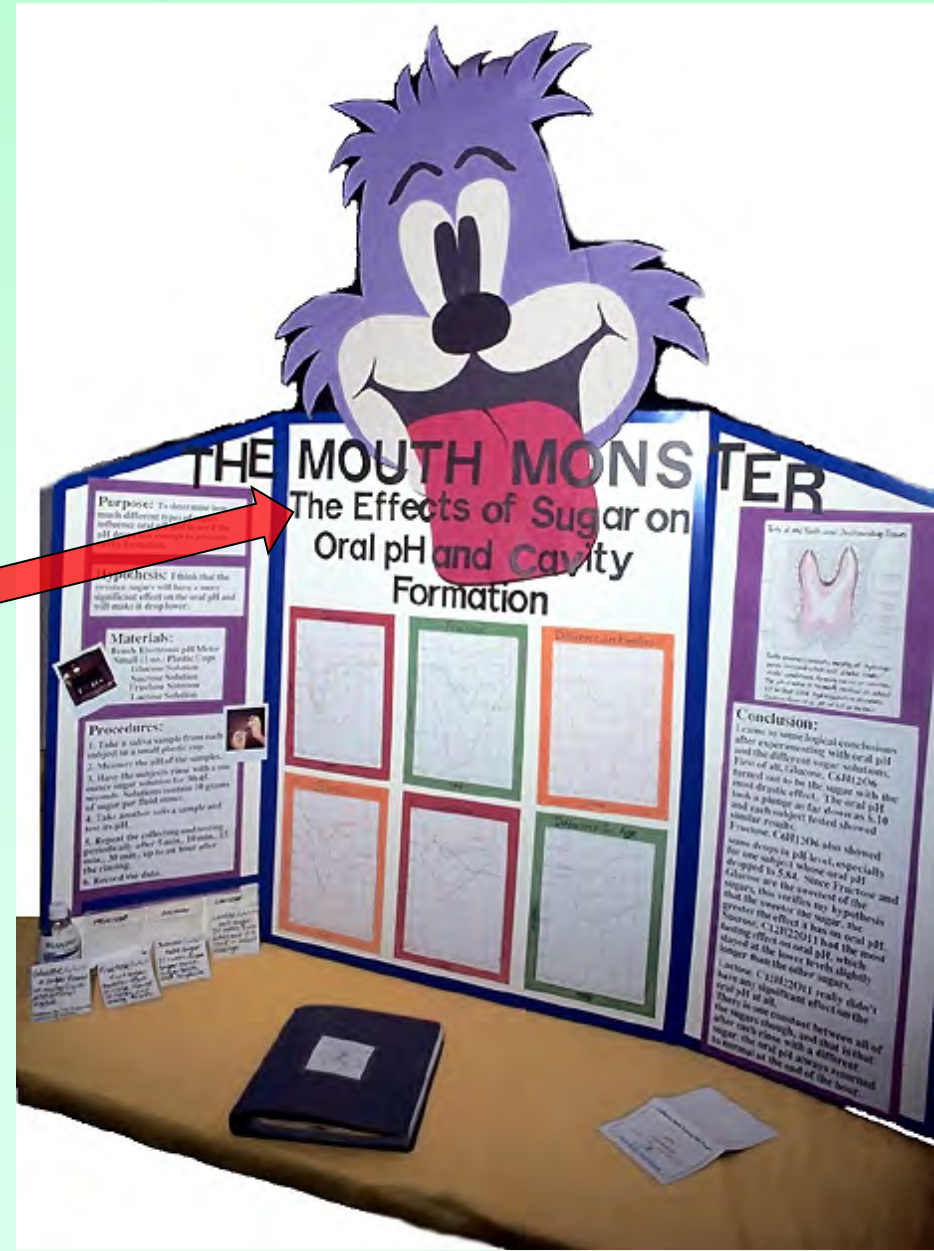
- **TYPED & PROOFREAD!!**

- *Spelling counts...*
- *Neatness counts*



# Explanatory Title

- Make sure your title is not confusing
- If necessary, use a **sub-title** for a clear explanation



# Titling Enhancement

- Use novel way to make titles “pop”

## PIXEL COUNTING AS A DATA COLLECTION TOOL





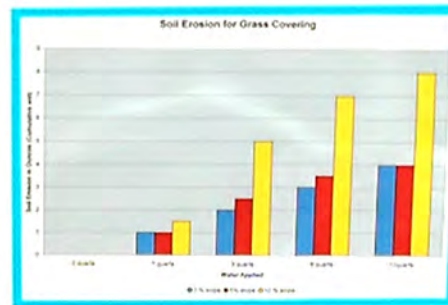
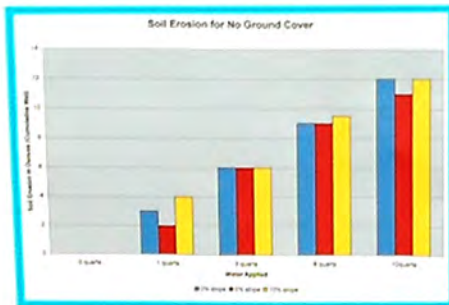
# Extra Foam Core Board & Computer Graphics



# Graphs and Figures

- Keep Graphs
  - Large
  - Interesting
- Keep data increments comparable
  - Readable
  - Properly labeled

## DATA



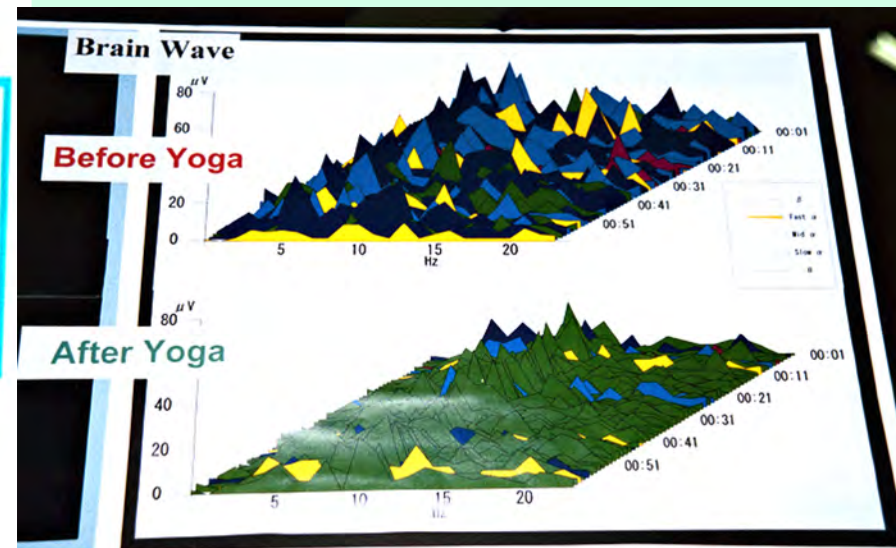
Soil Erosion for No Covering

Water Applied (Quarts)	1% Slope	1% Slope @ 1/2% Wind	1% Slope @ 1/2% Wind @ 1/2% Wind
0 quarts	0	0	0
1 quart	2	1	3
2 quarts	5	5	5
3 quarts	6	6	6
4 quarts	10	9	10



Soil Erosion for Grass Covering

Water Applied (Quarts)	1% Slope	1% Slope @ 1/2% Wind	1% Slope @ 1/2% Wind @ 1/2% Wind
0 quarts	0	0	0
1 quart	1	1	2
2 quarts	2	3	5
3 quarts	3	4	10
4 quarts	4	4	13



# Use Drawings to Explain Difficult Concepts



How viruses attack



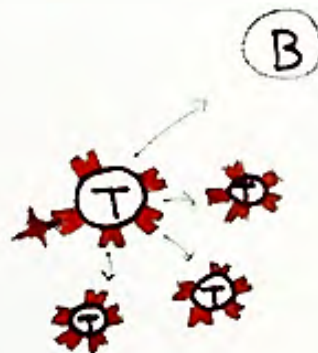
Virus enters through receptor



Cell begins manufacturing new viruses



How the body fights back



T cells are produced

B cells are activated

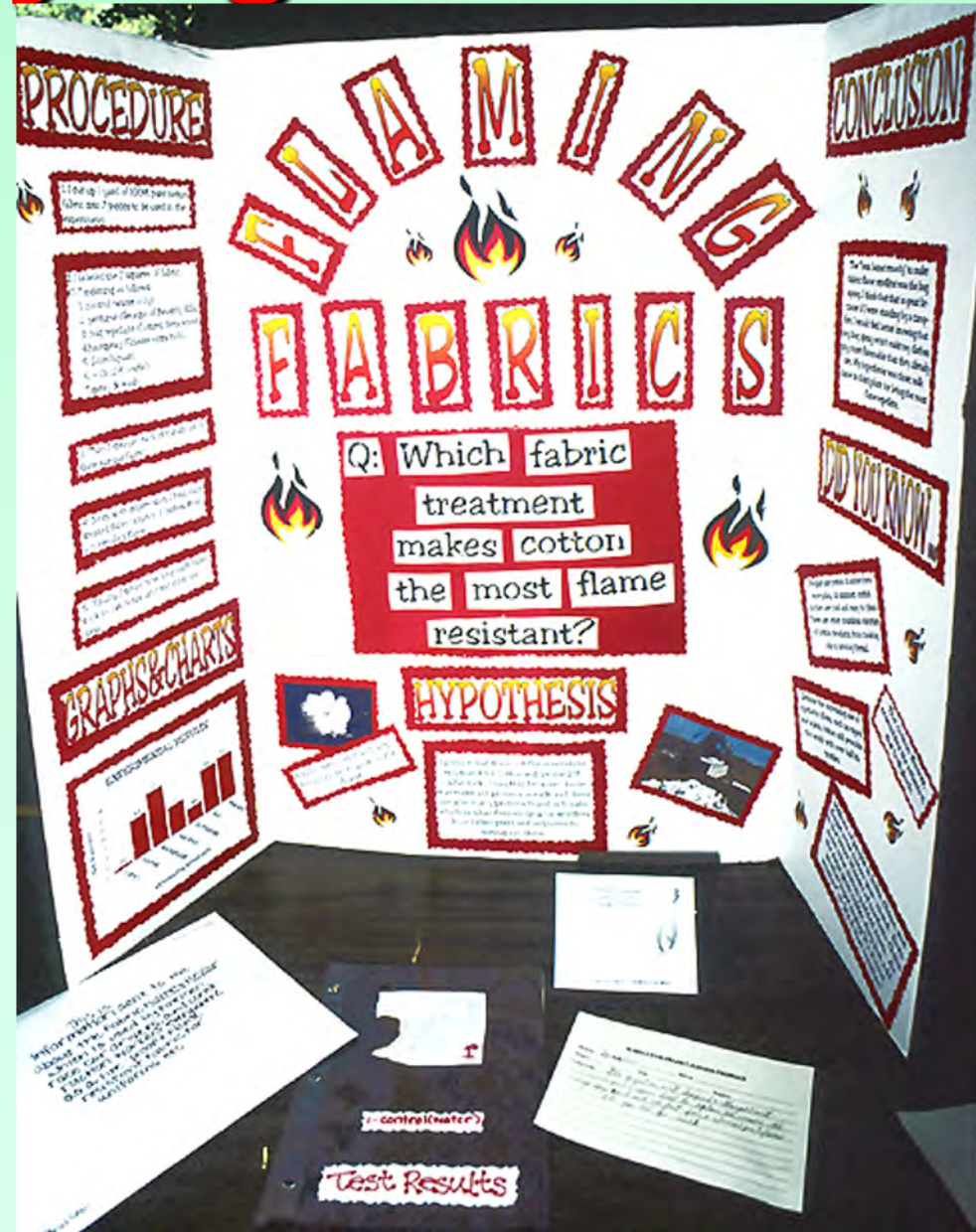


B cells produce antibodies



# Pick a Unifying Theme

- Fonts, background and/or graphics that go with the **theme** of your project



# Picking a Font

- Don't use *extra fancy* fonts
- You want judges to be able to read & focus on your *information*

*Project Title*

Project

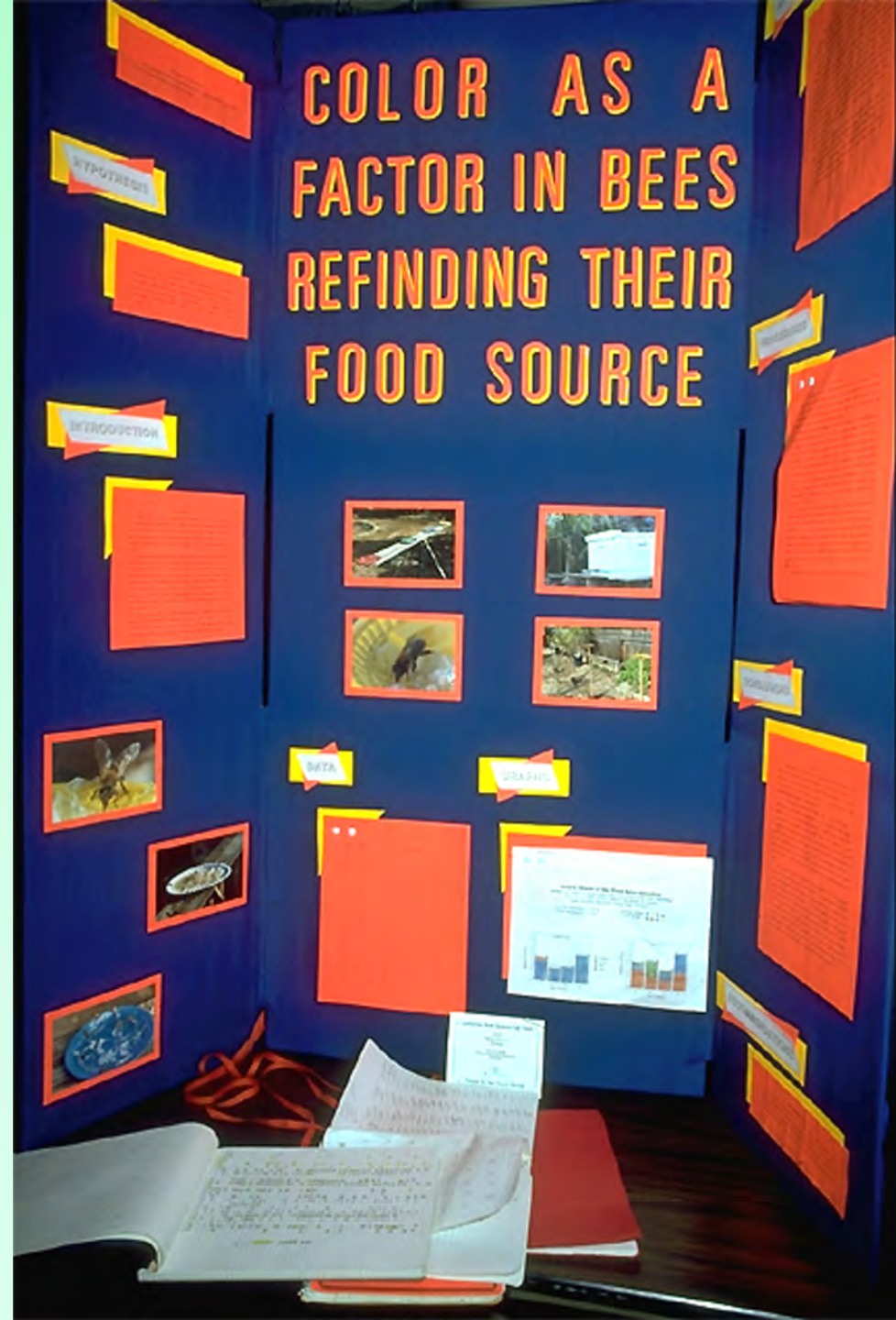
*Project Title*

*Project Title*

PROJECT TITLE

# Color

- Color use tied to the project
- Recommended:
  - No more than **3 colors**
    - *Dominant*
    - *Accent*
    - *Background*





# Too *MUCH* Color!

- Your eye doesn't know where to land
- No focal point
- Disturbing



# Graphics

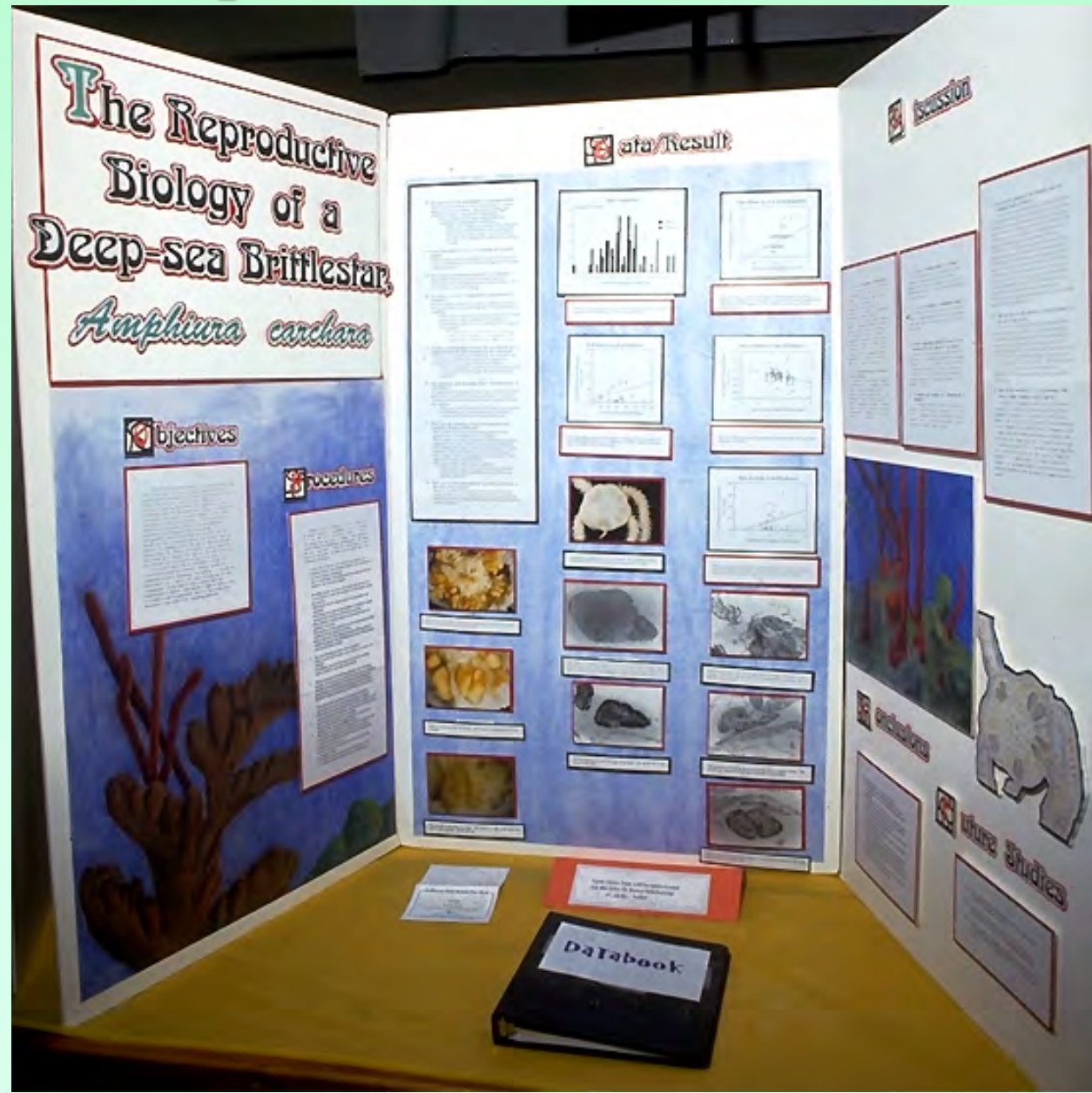
- Liven up a presentation





# Graphics

- Make the display board represent a study site





# Photos

- Can visually demonstrate procedures

## PROCEDURES :

\* Step 1: Purchase & unwrap 9 regular or plain hamburgers (2 each)



\* Step 2: Weigh each hamburger patty.



\* Step 3: Cut the burger into small cubes



\* Step 4: Boil one and a half cups of water in a pot.



\* Step 5: Put the cubed-burger meat in the pot.



\* Step 6: Boil the burgers thoroughly- 2 minutes from the boiling point



\* Step 7: Pour the boiled water and burger meat in the styro foam cup.



\* Step 8: To cool the meat faster put the cup in the refrigerator (Reject steps 1-8 to the remaining 3 burgers)



\* Step 9: When the cooled burger is some completely cold, remove the styro foam cup by using a spoon and pour the fat in a microwaveable cup.

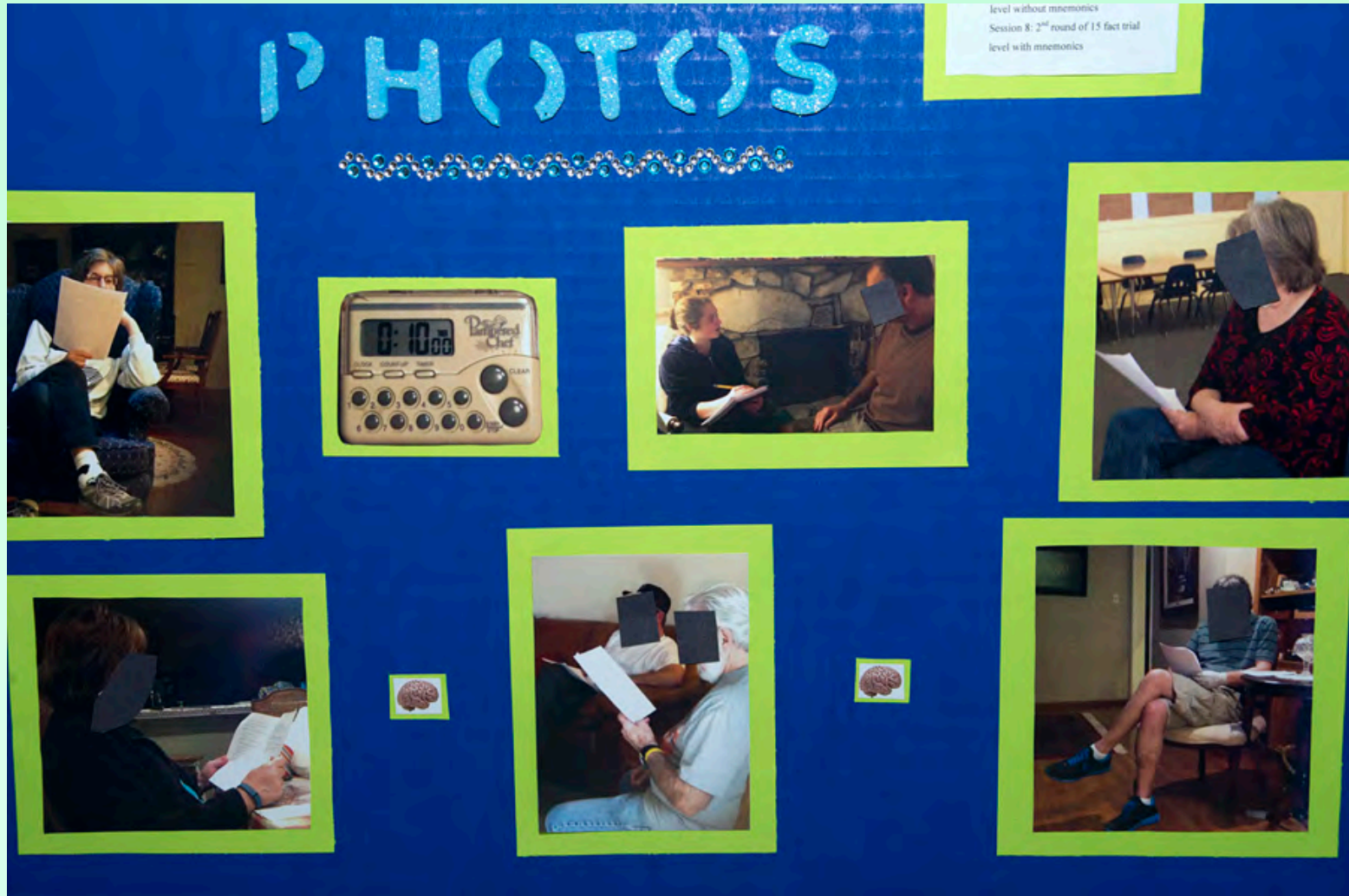


\* Step 10: Squeeze the water out of the cup using a spoon to get the left over fat



# Photos

- Must protect the identity of participants





# 3-D Displays

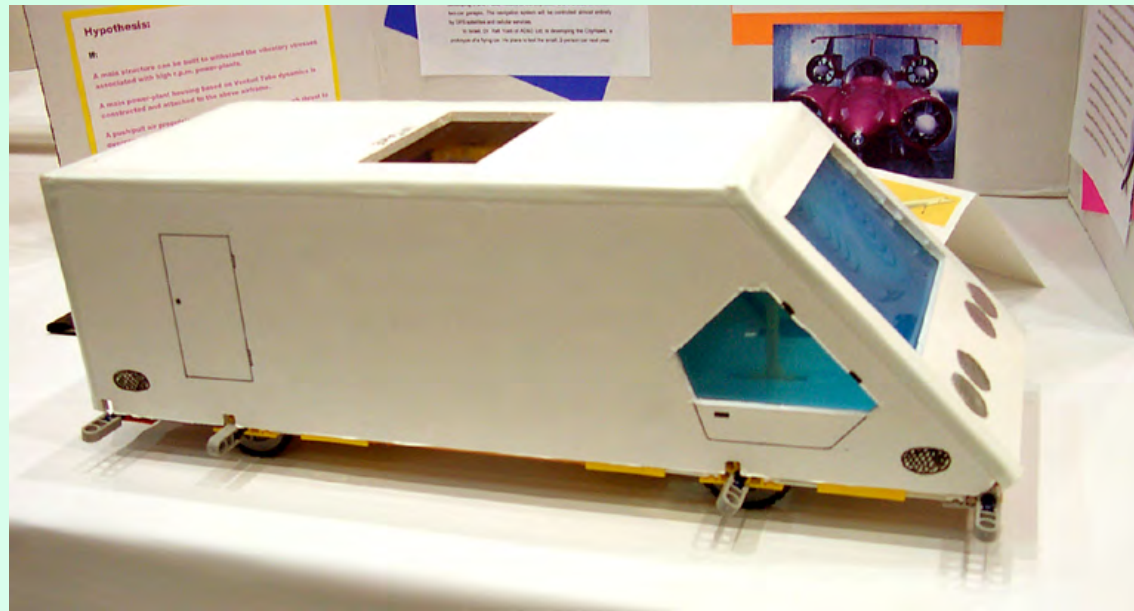
- 3-D Displays are encouraged
- *If you can, display the **actual equipment** you used to test your hypothesis.*





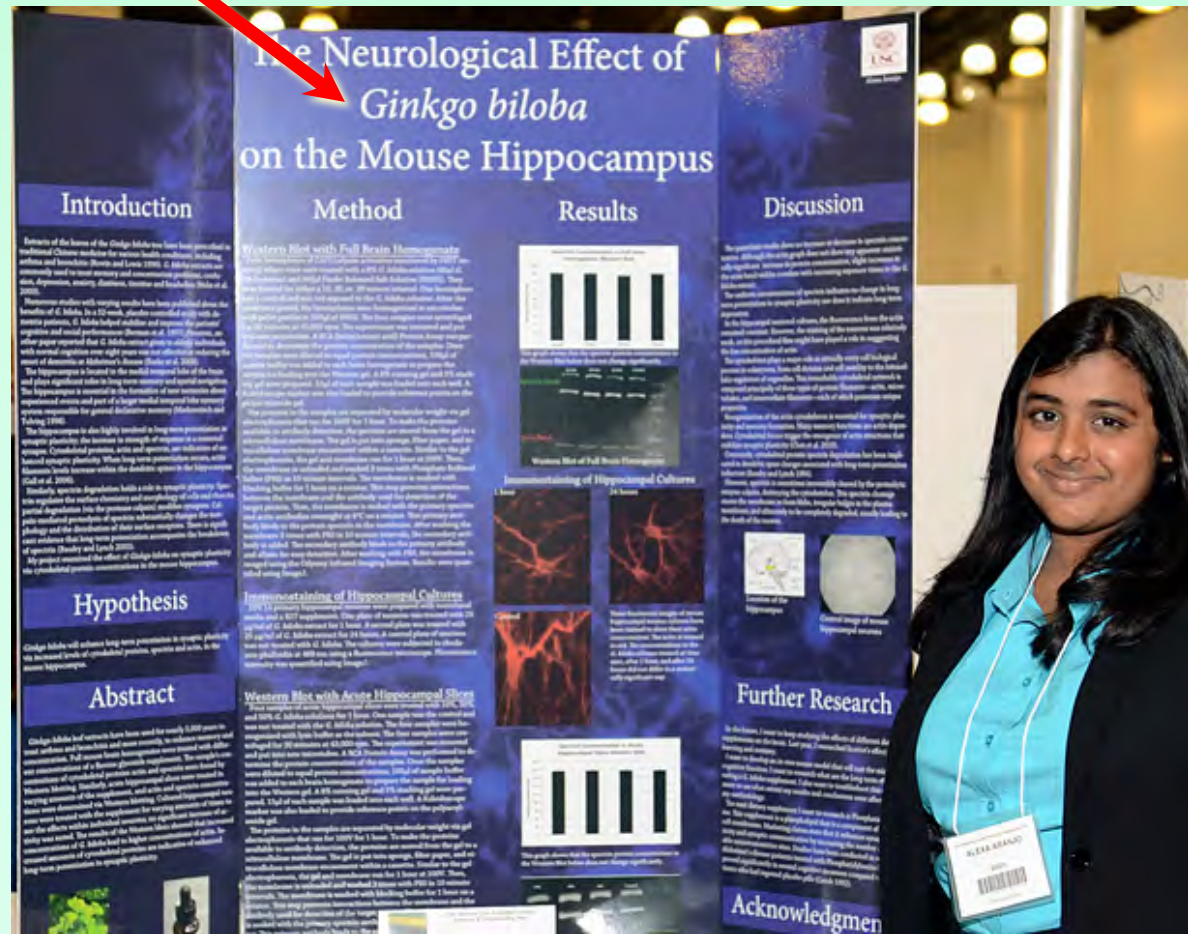
# 3-D Displays

- Should be **student-designed**
- Directly tied to the project
- **Follow rules** on what may be displayed



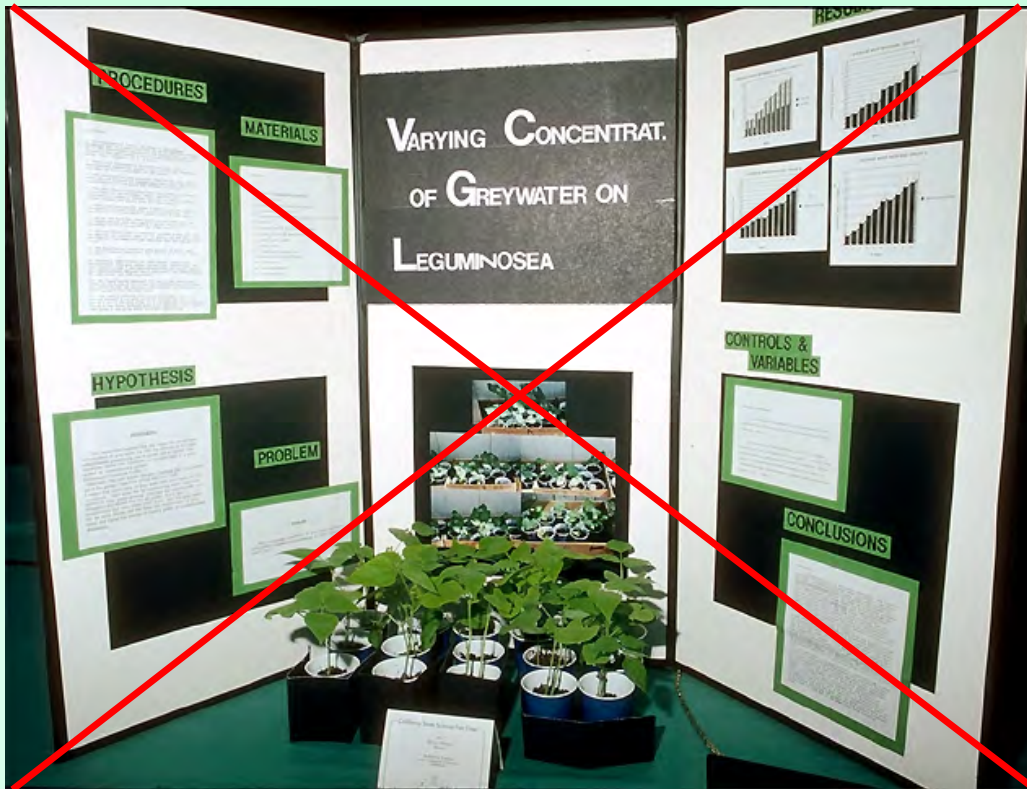
# Scientific Naming

- When living organisms are the subject of the study, their **SCIENTIFIC NAME** should be displayed on the board at least once (within text); *italicized* or underlined



# NO Live Organisms

- **NO living organisms** (including plants) can be displayed: *use a substitute*





# DON'TS

- Don't include **living or dead bacteria, viruses or fungi** in your display
  - *Use photos or models instead*



# Display “DON'TS”

- **NO LASERS**...period
- **NO un-insulated electrical devices *above 12 Volts***
- **NO LIQUIDS** (as part of the display)
- **NO FOOD** (as part of the display)



# **NO** Hazardous Materials

- **No toxic materials**
- **No drugs** (of any kind)
- **No radioactive materials**
- **No caustic materials** (acids, bases)





# DON'TS

- Don't include **highly expensive pieces** *unless you are willing to remove them immediately after the interview*



# Mechanical Devices

- **Bolt down** any devices that could injure someone if it fell or was mishandled.



# Be Aware...

- **Equipment** that is small or expensive should be brought to an interview and removed promptly
- *We cannot be responsible* for easily broken items you leave at your own risk.





# Remember...

- No matter how fancy & eye-catching the display...
- ★ *It can't take the place of solid, well-documented and analyzed research*



Designed by

***Anne Maben***

*Science Consultant, UCLA Science Project  
For the*



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