The Science Project & Science Fair Template Use these science & engineering practices to guide you through an investigation or project.

1. Ask questions & define a problem: Pick a question that you want to try answering with your drone

Your Name & Team members

2. Develop & use models: Draw a diagram that shows what you think you will find.

3. Create a draft project title based on your question:

4a. Plan your investigation: What are you steps? What will you do to collect the information you need?

4b. Sketch a map showing planned route for your drone to fly and from which directions. If you are taking photos, show the locations of the photos to be taken.

4c. Use Math / Computational Thinking: How you will measure the size of objects and the height of your drone? (Hint: cut a tarp into a circle or square, one-meter across – other methods?)

5. Carry out your investigation: Add information about your data in a table. What new questions did you think of while conducting your investigation? Record data about each session and flight. Use your data to answer the question you asked.

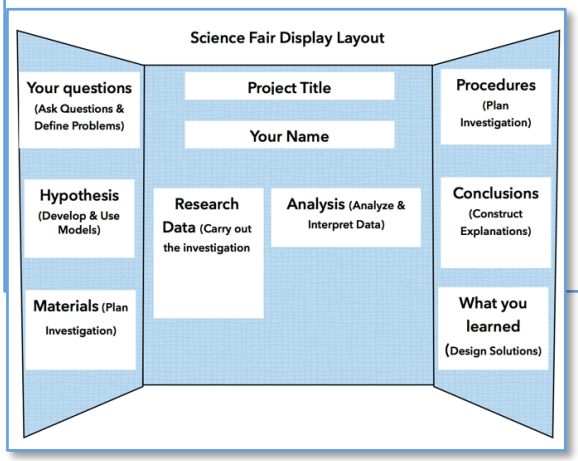
6a. Analyze & Interpret Data: Organize the data – How do they contribute to answering your questions?

6b. Use Math / Computational Thinking during your analysis: Measure the objects in your photos - are circles actually circles? How do the sizes of objects in photos change? Generate statistics from your data. What patterns do you see?

7. Construct Explanations & Design Solutions: What have you learned from data that help you answer your project questions? How would you have changed your investigation design?

8. Engage in argument from evidence: What questions might others ask you? How would you respond and how would you use your data and analyses as supporting evidence for your discussion?

9a. Communicate: Make a Science Fair Display of your project and results



9b. Communicate & Evaluate: What would you tell your community leaders?

What other data would be useful to evaluate if drones are useful & successful for these types of investigations?

Go online – what information would add to your project? What other ways could you use this information?