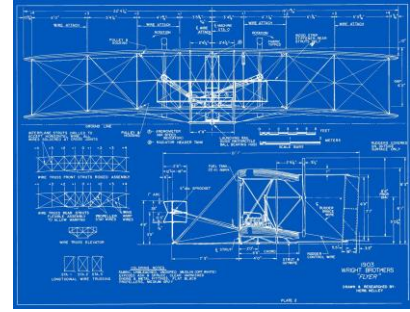


RESEARCH PROJECT: SCIENTIFIC PROCESS

- Question-What are you investigating scientifically?
- Hypothesis- Guess based on a strategy and background information
- Background- information that explains how you came up with hypothesis/Research Info listing sources
- Materials- list all the things you need to do the experiment
- Procedures- steps you took to find the answer and test hypothesis
- Observations- should be measurable
- Results- summarize observations, use graphs and charts
- Conclusions- answer the question based on results

ENGINEERING PROJECT: ENGINEERING PROCESS



- **Problem**- Choose a real-world problem. Investigate how others have tried to solve it. What could you do to solve the problem?
- **Design Plan**- Develop and sketch a plan for your design. Label needed materials, measurements, etc.
- **Construction**- Build a prototype (model) based on your design plan.
- **Testing**- Test your prototype. See how it could be improved. Revise/improve your prototype and test again (and again and again and again, if necessary).
- **Creativity**- Make sure your solution is unique or solves the problem in a way others have not. Building something that someone else already invented does not show creativity.
- **Presentation**- Show evidence of all steps of your process. You may display photographs to show the stages of the process

SCIENCE FAIR TIMELINE

| Task | Due Date |
|---|--|
| Complete Science Fair Interest Form and return it to your science teacher. | January 17, 2020 |
| Your science teacher will give you the necessary safety forms to fill out and return to school. | January 24, 2020 |
| Work on your research or engineering project after it has been approved. | January 31, 2020- March 8, 2020 |
| Bring your completed project to school. | March 9, 2020 |
| Projects will be presented and judged. | March 10-11, 2020 |
| Science Fair Open House at Central Elementary School | March 12, 2020 5:15 pm- View Projects 5:40 pm- Winners announced |

DO NOT USE THESE IN YOUR PROJECT:

- Alcohol or tobacco products of any kind
- Bacteria, mold, or mildew
- Fire
- Household bleach, dry ice, liquid nitrogen or other harmful chemicals
- Human tissue (including blood)
- Medicine (Over-the-counter and prescription)
- Science lab chemicals (only approved chemicals may be used)
- **Vertebrate animals**
- Weapons of any kind (including paintball guns, airsoft guns, bow and arrow, etc.)
- Photographs that include individuals' faces



RESOURCES

- <http://www.aacps.org>
 - go to Students
 - got to Resources/Links and select Classlinks-student portal
 - log in with student's account information
 - Then go to:
 - AACPS Online Resources
 - Select Central Elementary School under elementary school choices
 - go to Online Databases
 - Select SIRS Discoverer (They will need the username and password on the brochure to access SIRS)
 - it's ID: aacps Password: aacps
 - Select Science under topics
 - Select Science Fair Explorer
- Science Buddies-sciencebuddies.org