

Plan Investigation
Tutorial Handout

Name: _____

1. Slide 2: Imagine how your investigation will look. Draw and label a diagram of it.

2. Slide 4: Design an investigation (experiment) to test this hypothesis:

If I have planes with different wings, then the plane with the widest wings will fly the farthest; because wider wings will hold up more air.

a. Variables

i. Independent: _____

ii. Dependent: _____

iii. Control: _____

b. Materials

3. **Slide 5:** Now design your own investigation. Remember to refer back to your hypothesis, diagram, and variables.

Materials

List all the supplies and equipment you will need for the investigation (experiment). Be specific about any amounts you will use and their units of measure.

Procedure (Method)

Describe the exact steps you will take to do your experiment so another person, not familiar with your work, can correctly do the experiment. Clearly state how you will measure the results to support or reject your hypothesis.

1.

2.

3. _____

4. _____

5. _____

6. _____

7. _____

8. _____

9. _____

STEM Fair Drawing

Teacher: _____

Student: _____

	Self	Adult
1. My scientific drawing looks similar to what I observed.		
2. I included as many details as possible: colors, textures, shapes, measurements, etc.		
3. I labeled all the parts of my scientific drawing.		
4. I wrote a title that tells what my scientific drawing shows.		
5. I provided a written explanation of what my scientific drawing is intended to show.		
6. My scientific drawing is of an appropriate size for details to be easily recognized.		

Comments:

STEM Fair Plan Investigation (Experiment)

Teacher: _____

Student: _____

	Self	Adult
1. I stated my question and hypothesis.		
2. All of my materials are listed.		
3. I included the exact amount of each material used.		
4. I listed the procedure (directions) in order.		
5. I explained how I will change the one independent (manipulated) variable.		
6. I explained how I will measure the impact on the one dependent (responding) variable.		
7. I controlled (kept the same) all the variables that will impact the outcome, except for the independent (manipulated) variable.		
8. I plan to repeat the investigation (experiment) at least 3 times to see if I get consistent results.		
9. I included a scientific drawing of how to set up any equipment.		
10. From my plan (design), it will be easy for another person to repeat my investigation (experiment).		
11. I included appropriate safety precautions.		
12. My investigation (experiment) will allow me to find out if my hypothesis is true or not.		

Comments:
