UNIT 1 Milestone 1
The Scientific Method - The Hypothesis

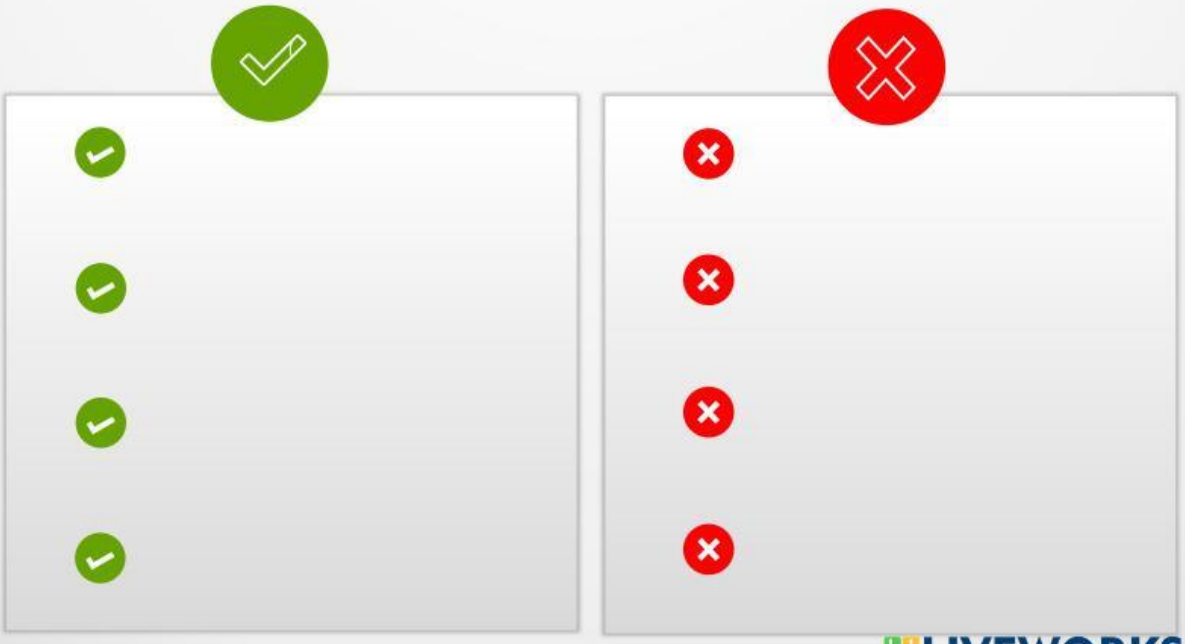
The objective of this activity is to understand the concept of hypotheses by making predictions about the flight performance of paper airplanes based on observations and prior knowledge.. A hypothesis should have two key elements:

1. Independent and Dependent Variables: A hypothesis should clearly identify the independent variable (the factor that is being manipulated or changed) and the dependent variable (the factor that is being measured or observed as a result of the independent variable). **The hypothesis should propose a cause-and-effect relationship between these variables.**
2. Predictive Statement: A hypothesis should make a clear and testable prediction about the expected outcome or result of the experiment or research study. The hypothesis should provide a specific expectation of how the independent variable will affect or influence the dependent variable.

Activity 5: Identifying Hypothesis

A student writes the following statements as the possible hypothesis. Identify the correct and wrong hypothesis and put them in the table below. Clearly explain the rationale for correct and wrong hypothesis.

1. Paper airplanes with delta wings will always fly farther than those with standard wings.
2. Increasing the wing surface area of a paper airplane will lead to longer flight distances.
3. Different wing shapes will affect the flight characteristics of paper airplanes
4. Increasing the weight at the front of the paper airplane will result in shorter flight distances
5. I think paper airplanes fly better without any additional weight
6. Paper airplanes will fly differently when weight is added
7. Paper airplanes with evenly distributed weight will fly the farthest



LIVEWORKSHEETS