Name:
Directions: Use this worksheet to help you plan your portfolio. You'll need to create a plan to explore balanced forces in motion, balanced forces at rest, and unbalanced forces. You do not need to use a feather and a straw! Let me see your creativity as you investigate different forces!
Materials Needed:
What will be your constants? What will remain the same in each step? Ex. same feather and straw in each step.
What will be your variables? What will change in each step? Ex. I will blow harder, use a shorter straw, etc.
How will you test your ideas?
How will you record your results?
What balanced forces in motion do I expect to see?
What balanced forces at rest do I expect to see?
What unbalanced forces do I expect to see?
How will I share my results with my teacher? (You might draw something, take pictures, or write a short paragraph.)
Please turn in this plan along with the results of your presentation. You can attach them to the dropbox under the Assessment of Unit 2 Lesson 8.

## **Force and Motion Portfolio Rubric**

**Directions**: Use the rubric below as a guide in writing and revising your plan.

Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)	Points Awarded
Organization	Plan is well organized and written neatly. Plan includes logical variables and constants.	Plan is partially organized. Writing is not always done neatly. Plan includes a few logical variables and constraints.	Plan lacks organization. Writing is not always clear. Plan is missing some logical variables or constraints.	Plan lacks organization and writing has many grammatical or logical errors. Plan is missing logical variables and constraints.	
Creativity	Plan uses creative ways to test the variables.	Plan attempts to use creative ways to test variables but relies more heavily on typical or expected methods.	Plan has few attempts at creative ways to test the variables.	Plan is lacking in new or creative ideas.	
Clarity	Plan clearly shows the concepts that will be tested.	Plan is mostly clear in showing the concepts that will be tested.	Plan is rarely clear in showing the concepts that will be tested.	Plan is not clear in showing the concepts that will be tested.	

Application of Force and Motion concepts of force and motion.  Plan shows some understanding of concepts of force and motion.  Plan shows some understanding of concepts of force and motion.  Plan shows little understanding of concepts of force and motion.	Criteria	Excellent (4)	Good (3)	Fair (2)	Poor (1)	Points Awarded
	Force and Motion	understanding of concepts of force				