

Unit Name: Tissue Paper Parachute

Time Frame: 2-4 class periods

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UNIT

Subject: **Math/Science/LAL** Country: **USA**

Course/Grade: **5th** State/Group: **NJ**

School: **Egg Harbor Township High School**

UNIT SUMMARY

Students will design and possibly redesign a tissue paper parachute. Students will use measurement, convert measurements and calculate speed.

This would be a great lesson used with the Forces Unit in Science (speed) or could be used with Math for the Measurement Unit (Trimester 3 Chapter 11.)

This could be used entirely as a lesson for an expository piece. Focus more on the writing and note-taking.

UNIT RESOURCES

Math Textbook Chapter 11

Science Textbook Forces Unit

Internet Resource Links:

<http://howtosmile.org/record/71>

STAGE ONE

GOALS AND STANDARDS

SCIENCE:

5-PS2-1 Motion and Stability: Forces & Interactions- Gravitational Force

MATH:

5.MD.1 Measurement in Customary Units (Chapter 11)

5.MD.1 Measurement in Metric Units (Chapter 12)

5.NBT.6; 5.NBT.7 Division (Chapter 4)

LAL:

CCSS.ELA-Literacy.W.5.1 Write opinion pieces on topics or texts, supporting a point of view with reasons and information.

CCSS.ELA-Literacy.W.5.1b Provide logically ordered reasons that are supported by facts and details.

ENDURING UNDERSTANDINGS

Students will understand how to work cooperatively to design a parachute using the given supplies. They will test their parachute and have the opportunity to redesign and test again. They will measure, convert if needed, and calculate speed.

ESSENTIAL QUESTIONS

How does a parachute work? How does gravity play a part in your design? How do use measurement and math to redesign?

KNOWLEDGE AND SKILLS

Students will learn how to work with others and consider other ideas when working together.

STAGE TWO

PERFORMANCE TASKS

1. Place students in groups.
2. Give each group a bag of Materials-
12 in. x 12 in. tissue paper
8 small paper clips
5 ft. of kite string
12 in. of scotch tape
3. Give each group the worksheet with the Design Challenge Steps.
4. Create the parachute and write down step by step directions while doing it.
5. Test the parachute and calculate speed.
6. Redesign your parachute and test again.
7. Redesign a third time and test again.
8. Write an expository essay detailing step by step directions on how you designed your final parachute.

OTHER EVIDENCE

The students should be note taking, calculating speed and writing down step by step directions through the entire process.

STAGE THREE

LEARNING PLAN

Focus on reflection and redesign.

****See attached worksheet for details****