

Egg Drop Investigation: Tuesday

Entry Task: Redraw the force diagram, but make sure to show which force is greater visually with the arrows instead of words, then draw a 3rd net force arrow.

ON GOOS PAPER



Learning target: I can prepare a written report of my egg drop investigation.

Egg Drop Investigation: Tuesday

Finish your question, variables, hypothesis and materials list for your investigation.

Question: How does _____ of the parachute affect the time of the drop?

Hypothesis: Ifthen...because..

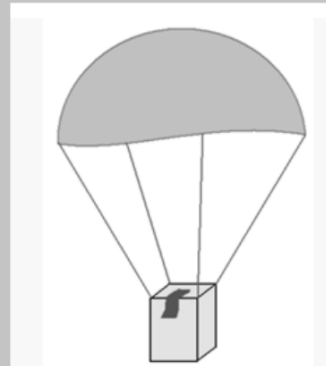
Variables:

MV:

RV: Time of drop

CVs:

Materials:



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Egg Drop Investigation: Tuesday

How parachutes work and fail video...

<http://www.weston.org/schools/ms/ditc/designTasks/parachute/howParaWork/index.html>

Research the design for your parachutes.

1 netbook per table!

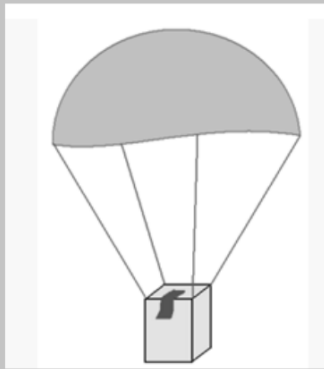
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Egg Drop Investigation: Tuesday

Materials

You must bring your materials list to me when you need to begin building.

I will only give you what is specifically on your list!



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Egg Drop Investigation: Wed

Diagram:

Show how you will carry out the investigation.

Procedures:

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Egg Drop Investigation: Wed

When your diagram and procedures are done, you need to finish your egg drop device! Tests begin tomorrow.

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Egg Drop Investigation: Thursday

Data Table:

	time (sec)		
	timer 1	timer 2	average
_____ parachute			
_____ parachute			

Observations of my egg drop:

Observations of other teams:

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Egg Drop Investigation: Thursday

Controlled Variables:

Release methods, starting with open parachute...

Finish preparing your egg drop device, we will run tests for some teams at the end of class today! The rest of the tests will be done tomorrow!

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Egg Drop Investigation: Friday

Egg Drop: Finish testing for all teams!

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GENDA

- Conclusion
- Investigation Discussion

Exit Goal

Complete the conclusion and investigation discussion.

TPT

Entry Task: Write the conclusion for your egg drop investigation.

Conclusion: Objective Summary of Results

A Answer the investigation question and say if your hypothesis was correct/incorrect.

P Provide supporting high data

P Provide supporting low data

S Say how this data supports your conclusion. (The _____ parachute took _____ sec more time to land than the _____ parachute.)

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S Say how this data supports your conclusion.
(The _____ parachute took _____ sec more time to land than the _____ parachute.)

Examples:

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Class Data

Overall what did you notice when watching the egg drop and listening to the conclusions?

Which parachute characteristics slowed the device the most?

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Discussion of Conclusion:

I want to know scientifically why your materials behaved the way they did.

Draw 2 diagrams:

Each showing the forces acting on your egg drop device as it fell.

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Discussion of Conclusion:

I want to know scientifically why your materials behaved the way they did.

Draw 2 diagrams:

Each showing the forces acting on your egg drop device as it fell.

Find other teams who tested the same manipulated variable.

Create a consensus diagram to share with the class on a white board.

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

1. Infer why you think you got the results you did. Use your background experience and knowledge of science to explain the reason for the differences in your data.
2. Report any variables not controlled and how they might have affected your results.
3. What would you do differently next time to make your investigation more valid and your data more reliable?
4. What are the limitations in your investigation? (How might your conclusions be overgeneralised from limited data or bias.)

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

1. Infer why you think you and the class got the results you did? Use your background experience and knowledge of science to explain the reason for the differences in your data.

~How were the forces different in your two parachute devices?

*~Possible key words in your response:
force, gravity, net force, friction, air
resistance, time, speed, acceleration*

*~Think about your diagram, explain in
words*

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

2. Report any variables not controlled and how they might have affected your results.

Use your ActivExpression to respond

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

3. What would you do differently next time to make your investigation more valid and your data more reliable?

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

4. What are the limitations in your investigation
(How might your conclusions be overgeneralised
from limited data or bias?)

~How confident are you in your results?

~Confidence scale on the expressions.

Learning target: I can prepare a written report of my egg drop investigation.

Discussion of Conclusion:

1. Infer why you think you got the results you did?
Use your background experience and knowledge of science to explain the reason for the differences in your data. (Inferences about why you got these results)
2. Report any variables not controlled and how they might have affected your results.
3. What would you do differently next time to make your investigation more valid and your data more reliable?
4. What are the limitations in your investigation (How might your conclusions be overgeneralised from limited data or bias?) *How confident are you in your results.*

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How does this connect to the egg drop investigation?

Air Lift (Ski Jump)

Force and the winter olympics



http://www.nsf.gov/news/special_reports/olympics/

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2/6

Egg Drop Investigation

#12

Egg Drop Investigation

Tuesday 2/7

Net Force Clarifications

Learning target: I can prepare a written report of my egg drop investigation.