3D Printing

Filaments and Catapult

Please use this sheet to record your data from the 3D printing videos.

- ***Materials Needed:***
    - These materials were only available for students who registered for and attended the session on 11/5/20 – Overview experiment videos are available for the following:
        - 3D printing filament samples - PLA & TPU, Catapult base and interchangeable arms (A,B,C) overview, how to change arms, projectile testing.

3D Printing Background

What do you know about 3D printing?

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What do you think could be 3D printed?

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3D Printer Filaments - In your kit you will find two lengths of 3D printer filament.

What are your initial observations about the two different filament samples?

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Why do you think that there are different types of filament? What could you do with each?

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3D Printed Catapult Arms - In the videos, you will see 3 separate catapult arms. They are labeled and color coded: A – Pink, B – Blue, C -Black

What's the same about each arm? What's different?

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What do you think that the differences will mean in how the catapult works?

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Which arm do you think will launch the poms and cotton balls (CB) the farthest?

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3D Printed Catapult Test – Watch the projectile test video and note which catapult arm is able to launch the poms and cotton balls the farthest.

Based on the video, which catapult arm launched the poms and cotton balls the farthest?

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3D Printed Catapult Test Observations & Conclusion

What did you notice during the testing?

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Did anything unexpected happen during testing? If so, what was it?

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Why do you think that particular arm was able to launch the poms and cotton balls the farthest?

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Was the arm that was able to launch the poms and cotton balls the farthest different from your original hypothesis?

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Please use the space below for additional observations, comments, or questions.

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