

Engineering Fun! Catapult Presentation Notes

Answers

As we go through the presentation, answer all the questions. This information will be useful for the upcoming activity!

1. On the title page (*slide 1*), there is a picture with a plane on an aircraft carrier. What is one modern-day use of catapults? (Hint: think about the picture!)

Catapult-like devices are sometimes used to launch planes and jets from aircraft carriers that have limited runway space.

2. (*slide 2*) Catapults!

(a) In the bottom right image, what should the angle θ be equal to if you want to launch the projectile as far as possible?

45°

(b) If the launching part of the catapult (the spoon-shaped piece) is held by a string before the projectile is launched, should that string be loose or tight? Why?

The string should be tight. The tighter the string, the more force applied to the launched object, the farther it will go!

3. (*slide 3*) Imagine you are using a catapult to shoot Ping-Pong balls at a target. You shoot 5 Ping-Pong balls and they all hit the top right corner of the target even though you are aiming for the center bull's-eye.

(a) Are your shots accurate?

No

(b) Are your shots precise?

Yes