

# Projectile motion by playing catch

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6/25/2018

**Purpose of activity:** Everybody has an intuitive idea of projectile motion from experience, so this lesson tries to draw on that to reinforce the mathematics of projectile motion.

**Topic and objective:** This lesson should follow the introduction of projectile motion. After this activity students should be able to qualitatively describe projectile motion using accurate terminology from the course.

**Preparation:** You need a ball to play catch with (I used an American football) and should have a plan of questions for the class.

**Duration:** 10 minutes

**Considerations and suggestions:**

## **Activity:**

1. Start by asking for a volunteer. It is up to you if you want to reveal anything about the demo before asking for a volunteer. I prefer not to (keeping the football in my bag until the volunteer has gotten to the front).
2. Start with an initial question
3. Lay out steps until complete

**Reflection:** Questions or ideas for the students to think over or discuss that should help them focus on the key points.

Figures should be provided as a separate file in the same directory and be referenced in text.