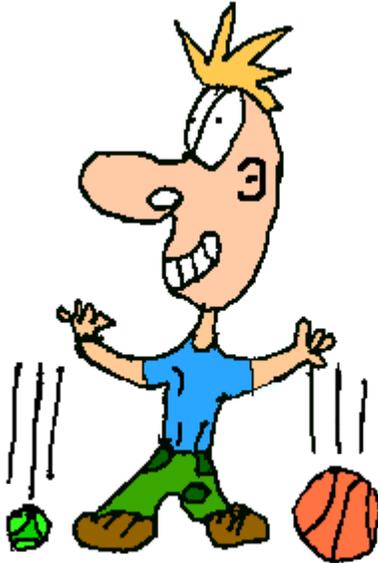


# THE BOUNCING EGG

Egg-strav-ig-anz-a



## Materials:

- 1 basketball
- 1 tennis ball
- 1 metre ruler
- 1 raw egg
- protective eye goggles

(optional) download the video of the astronaut dropping the feather and the hammer at the same time from here...

<http://home.cvc.org/physics/apollompeg.htm>

## Characters:

**Narrator 1:** a witty 'nerdy' type

**Narrator 2:** a peppy cheerleader type.

**Narrators please note that you are required to pause and over emphasise all puns associated with eggs**

**Assistant:** a lively, enthusiastic character.

**Professor I.M Hip:** A person with an obvious love of science facts that just oozes cool.

## The Script

**Narrator 1:** Welcome one and all to our **egg-stra-ordinary** egg demonstration.

**Narrator 2:** But before we begin, we'd like to introduce to you our **egg-citing** assistant...

**Narrator 1 & Narrator 2 :** **Anita Bath** (*Anita takes a bow*)

**Narrator 1:** As we progress through this activity our wonderful assistant,

**Narrator 1 & 2:** **Anita**

**Narrator 1:** will demonstrate some **egg-cellent** science.

**Narrator 2:** We are also privileged to have here today the world renowned **egg-spert** scientist Professor I.M Hip.

*(Professor nods head knowingly toward the audience from a chair to the left of the stage)*

**Narrator 2:** Anita will now hold a basketball and tennis ball at the same height.

**Narrator 1:** Which one of these balls do you think will hit the ground first?

*(Choose a couple of people to tell you their answers)*

**Narrator 2:** Ok Anita. Let them go!

**Narrator 1:** Wow! Did you see that?

**Narrator 2:** They hit the ground at *about* the same time.

**Professor:** Yes, in 1590 the famous scientist, Galileo Galilei demonstrated that it is not how much something weighs that makes it fall fast or slow

towards the ground.

**Assistant:** Yes, in fact he showed that gravity makes heavy objects and light ones fall at the same rate...

**All:** (Clear throat at same time and cold stares directed at the assistant)

**Assistant:** (*Mumbles to the audience*) Oh yeah, I remember, I'm just the humble assistant.

**Narrator 1:** Hey, but that can't be right because when you drop a plastic bag it falls to the ground at a slower rate.

**Narrator 2:** Yeah, but air gets in the way and makes it fall slowly. Actually anything that is thin, fluffy or flat will act a bit like a parachute and will fall more slowly.

**Narrator 1:** Ahhh, now it is much clearer to me.

**Professor:** In fact, the great scientist Galileo dropped two balls of the same size, but different weights off a tower and they hit the ground at the same time.

**Assistant:** If I can throw in my two cents worth, when the astronaut **eggs-plorer**

Dave Scott of Apollo 15 was on the moon, (*characters glare at the assistant*) he did the same **egg-speriment**. *But this time there* was no air to get in the way. He dropped a hammer and a feather at the same time and they hit the lunar surface together.

**Professor:** (*glares at assistant*) and if you'd like to, you can see a video of this experiment on the Internet at...

<http://home.cvc.org/physics/apollompeg.htm>

**Narrator 2:** (*interrupts professor*) anyway, if you want this URL come and see us after the show.

**Narrator 1:** Our assistant will now stand up a metre ruler and place a basketball on top of it.

**Narrator 2:** Predict, or guess, how far up the ruler you think the ball will bounce if we drop it.

**Narrator 1:** (*Insert name*) what is your guess?

**Student:** (*give them time to answer*)

**Narrator 2:** *(Insert name)* what is your prediction?

**Student:** *(give them time to answer)*

**Narrator 1:** Ok Anita, drop the ball and tell us about how high it bounced.

**Assistant:** Wow! It bounced (...cms)

**Narrator 2:** Anita is now going to place a tennis ball at the top of the ruler.

**Narrator 1:** Ok scientists, make your predictions *(or guess)* how far up the ruler you think the ball will bounce.

**Narrator 1:** *(Insert name)* what is your guess?

**Narrator 2:** *(Insert name)* what is your prediction?

**Narrator 1:** Ok Anita, drop the ball and tell us about how high it bounced.

**Assistant:** *(getting bored)* Wow! It bounced (...cms)

**Narrator 2:** Now for the fun bit.

**Narrator 1:** Ok Anita, put the raw egg on top of the ruler and let the scientists in the audience predict how high it will bounce.

**Assistant:** No! It will smash and I'll have to clean up the mess.

**Narrator 2:** Ok, you're right.

**Narrator 1:** Our assistant will now hold a basketball with a tennis ball on top of it.

**Narrator 1:** Predict what you think will happen to the tennis ball if we drop the two balls together.

**Narrator 1:** *(Insert name)* what is your guess?

**Narrator 2:** *(Insert name)* what is your prediction?

**Narrator 1:** Ok Anita. Make sure you've got your protective goggles on and let's do it.

**Professor:** Wow! Did you see that? The tennis ball bounced higher than when we just dropped it from the top of the ruler.

**Assistant:** I wonder why *that* is?

(all members raise their fingers to their chins in deep contemplation for a few seconds)



**Narrator 1:** Our assistant will now place the egg on the bottom of the basketball.

**Narrator 2:** What do you think will happen to the egg?

**Narrator 1:** *(Insert name)* what is your guess?

**Narrator 2:** *(Insert name)* what is your prediction?

**Narrator 1:** Ok Anita, let's do it.

**Assistant:** No, the egg will smash and I'll have to clean up the mess.

**Narrator 1:** Ok, Ok. Our assistant will now place the egg on top of the basketball at waist height and then let both of them go at the same time.

**Narrator 2:** What do you think will happen to the egg?

**Narrator 1:** *(Insert name)* what is your guess?

**Narrator 2:** *(Insert name)* what is your prediction?

**Narrator 1:** Anita Bath, are you OK to do this?

**Assistant:** No. I think the egg will break all over the basketball and I'll have to clean up the mess.

**Narrator 1:** Do any of you scientists in the audience agree with Anita?

**Narrator 2:** Ok, in the name of Science, let's test it and find out.

**All:** (in a serious voice) **Only perform this demonstration under strict responsible adult supervision and make sure your safety goggles are secure.**

**Assistant:** *(perform the demonstration at least 10 metres from your audience and make sure you have safety goggles on)*

**Narrator 2 & Assistant:** WOW! Why did it go so far?

**Assistant:** I'll give you a hint. The egg 'stole' some of the energy from the ball.

**Narrator 2:** How about you now try and explain to your friends why the egg went so high...

**Narrator 1:** Now can you draw a diagram of us doing this activity so you can explain the demonstration to an adult when you get home.

For more scripts like this one please visit

<http://gvc03c32.virtualclassroom.org/>

and if you have some comments for us please email them to

[hey\\_ad@yahoo.com](mailto:hey_ad@yahoo.com)