

Scene: the laboratory of two scientists, Heard and Joel, with important looking equipment, papers, and a whiteboard or drawing board; the scientists are studying something when Lisa comes in. The scientists are wearing lab coats or Einstein shirts.

Scientists: Hello, Lisa! How are you?

**Lisa:** I'm just a little down today! I don't know what gets into me. I don't know why I can't just stay "up"! I would like to be able to fly and to keep on flying! I guess that it's just like they say, "**What goes up must come down!**" I feel like I have fallen and can't get up!

**Heard:** "**What goes up must come down!**" Well, now that is a principle that is generally true. In fact, you might say that it is just sort of a **guideline!**

**Joel:** Guideline? How can you say that? I thought that it was a law! Everything that I throw up into the air comes down again. Like with this tennis ball! [Joel tosses one to Heard]

**Heard:** Well, you know about gravity and how it affects all of us. Sir Isaac Newton saw an apple fall and it helped him understand the attraction between objects. He formulated the law of gravity that describes how we stay on the surface of the earth (and not just float around!).

**Joel:** Some say that the apple landed on his head and that he was the first nutty professor – of the school of hard knocks!

**Heard:** In fact, he realized that the moon is always falling, too. It moves around the earth at such a speed that the amount it falls is just enough to keep it in a circular orbit around the earth. So it's falling, but it never comes down! [Heard draws a diagram of the moon falling into, but orbiting the earth]

**Joel:** It's a good thing for the people on this planet that it doesn't!

[Heard begins juggling tennis balls]

**Heard:** Let's get back to the tennis balls. I can juggle a little, and you can see that I exert a force on them so that they stay up for a little while. And when you juggle, there's always one in the air at any moment. [Heard lets all of the tennis balls drop] And the main problem with not staying up is the **impact** when they hit the ground. That can be a doozy if an object is massive enough!

**Lisa:** But I can't juggle. And the balls really don't stay in the air! You can't just put them in the air and leave them there.

**Joel:** I do know that planes fly through the air and keep themselves up for a long time. But they have engines that keep the force applied as long as it is needed.

**Heard:** In a way, the idea that what goes up must come down is like a **myth!** We ought to find a way to demonstrate what it really means.

**Lisa:** Why can't we just break the law of gravity?

**Heard:** People like to say that someone broke the law of gravity when they fall off a ladder, but it really can't be done. Except in the cartoons, like when Bugs Bunny walks in mid-air and puts up a sign that says, "I never studied law"! It's just another **myth**. Even when we fall, we are not **breaking** the law of gravity – we are **obeying** the law of gravity!

**Lisa:** I can't help but feel like I fall faster than anyone, though!

**Heard:** That reminds me of another **myth** from long ago, although some people sense a truth in it even now.

**Lisa:** What is that?

**Heard:** People like to say that something that is heavier fell faster than something that is lighter. [Hands the bowling ball and basketball to Joel] Feel the difference between this bowling ball and this basketball.

[Joel holds one in each hand]

**Joel:** The bowling ball is a lot heavier?

**Heard:** If we dropped them at the same time, which would hit the ground first?

**Lisa:** You would think the bowling ball, but I think I've heard this one before.

**Heard:** The story is that Galileo busted this **myth** many years ago when he dropped two very different objects from the leaning tower of Pisa. They landed at the same time. People are sometimes fooled by the fact that air resistance can slow the lighter object down. Let's demonstrate this. Joel, if you will sit down and stretch your feet out so that we can use them to sense when the balls hit.

[Joel sits down and starts to stretch his feet out, then jumps up again]

**Joel:** I don't think so!

**Heard:** Well, let's just see if we can tell just by watching them hit the ground.

[Heard drops the basketball and bowling ball]

**Heard:** See what I mean?

[Heard picks up the balls]

**Heard:** You know, the Bible says that we all sin and **fall** short of the glory of God (Romans 3:23). It also talks about the weight of sin (Hebrews 12:1). And if you think that you are too good to fall, or so bad that you fall faster, then you are very mistaken. Our mass only changes how bad the impact is. It's like they say about jumping off a tall building – It's not the fall that kills you: it's the sudden impact! We still need something that keeps us from falling to the point of impact.

**Lisa:** Well, that's what I want to know! What about Star Trek and Star Wars where these big spaceships hover above the ground? Can some of this fancy equipment be rigged up to suspend something in the air? Something small, like a glass of water?

[Heard begins thinking about overcomplicated ideas to suspend water, and sketching them on the board]

**Heard:** I've got an idea! I can use a rope to make this work! I'll use a bucket of water and dip the rope in it. I'll leave one end of the rope submerged in the water, and hold the other end up! The water will wick up to the top! That should do it!

**Lisa:** [getting more frustrated] But the water's not really up there on its own!

**Heard:** Well, how about with a hose? I could use a pump to create a fountain. Just like the juggling, there would always be some water suspended in air.

**Joel:** But still, the water doesn't stay in the air. It keeps falling!

**Heard:** I could use the hose and suction to suspend the water about 32 inches from the surface of the water in the bucket.

**Lisa:** But the water is being held up by the water in the tube and in the bucket!

**Heard:** I know! We can run the vacuum cleaner in reverse, suspending a balloon filled with water!

[Lisa and Joel both groan "Oh, No..."]

**Heard:** Or I could boil the water to evaporate it into the air: that will keep it up for sure!

[Lisa and Joel groan again!]

**Joel:** What about a simple experiment where you could take a bucket of water and turn it upside down – and the water somehow doesn't fall out?

**Heard:** Well, I suppose we could think about performing some kind of experiment along that line. [fills a bucket half full with water] Here we go! [pours water from a bucket into a tub]

**Joel:** That didn't work out very well!

**Heard:** We need to get a little bit of data first. Joel, I need you to look from underneath as I turn the bucket of water upside down to see what is happening and how we can keep the water suspended. [Heard hands Joel a tiny piece of cloth to use as a towel]

**Joel:** [Gives a bewildered look] I'm not sure I'll be able to figure out anything fast enough

**Heard:** Sure you can! [Heard fills the bucket half full again]

**Joel:** Here, let me just put on this raincoat... [Joel hurries, struggling into a poncho and putting on his rain hat]

[Heard puts the bucket down while waiting on Joel]

**Heard:** Let's just try it... [Joel looks up and Heard gets a different bucket and pours out confetti instead of water]

**Joel:** [Joel, with confetti in his mouth, sputters] What in the world?

**Heard:** Oh, sorry! That's the wrong bucket! Here's the one with the water in it! Are you ready?

**Joel:** Wait a minute, wait a minute! I think I know how to keep the water in the bucket even when it is upside down!

**Heard:** Does it have to do with quantum physics and the unified theory of everything?

**Joel:** No... It's actually very simple. Let me see the bucket!

**Heard:** You're not still mad about that confetti thing, are you?

**Joel:** Just give me the bucket and watch!

[Joel swings the bucket in a circle]

**Joel:** The water rises, and then it falls, but the force of inertia keeps it in the bucket even when it is upside down. If you go fast enough, that is.

**Heard:** Wow! That's fascinating! So the bottom line (no pun intended) is that you must have a force to keep the water up. If we keep the force, the water will stay up.

**Joel:** This is wearing me out. Is the experiment over?

**Heard:** Of course! It's really the inertia of the water that tries to avoid changing directions. When the water gets to the top of the circle, it is moving up faster than gravity can bring it down.

**Heard:** We understand the physical part of this, but now we need to figure out the spiritual side of the problem, which is what will help Lisa (as well as the rest of us).

**Lisa:** Yeah, that's what I need!

**Heard:** The Spiritual **Myth** is that we are sinners and we cannot be accepted by God in that state. The **myth** says that we might as well give up and do whatever we want! Just like the natural tendency of water is to **fall**, the natural tendency of people is to sin. And the impact of that sin is spiritual death! [Romans 6:23, 1 Corinthians 15:56-57]

**Joel:** And the **myth** is **busted** because there is a spiritual force to keep us from falling completely – and that force is the Love and Grace of God! His Power saves us from the impact! **The solution with God**, like swinging the bucket of water, **is not really complicated!**

**Heard:** And think of the thrill of the ride in the bucket, knowing that we ought to fall out but are held in by a Great Force! What do you think, Lisa?

**Lisa:** I'm ready to fly! And to trust in God to keep me up!

Romans 3:23-24 for all have sinned and fall short of the glory of God, and are justified freely by his grace through the redemption that came by Christ Jesus.

Hebrews 12:1 Therefore, since we are surrounded by such a great cloud of witnesses, let us throw off everything that hinders and the sin that so easily entangles, and let us run with perseverance the race marked out for us.

Romans 6:22-23 But now that you have been set free from sin and have become slaves to God, the benefit you reap leads to holiness, and the result is eternal life. For the wages of sin is death, but the gift of God is eternal life in Christ Jesus our Lord.

1 Corinthians 15:56-57 The sting of death is sin, and the power of sin is the law. But thanks be to God! He gives us the victory through our Lord Jesus Christ.