

- PROFESSOR EINSTEIN:** So, the apply pyramid is finished. What do you say, Christoph?
A real work of art, isn't it?
- CHRISTOPH:** Yes, I think it fits perfectly with our lecture about apple stems.
- PROFESSOR EINSTEIN:** Exactly! Now we're just missing Ms. Schlau.
- MS. SCHLAU:** Professor Einstein, Professor Einstein, I'm afraid I need to cancel the lecture.
- PROFESSOR EINSTEIN:** What? Why? Are you sick?
- MS. SCHLAU:** No, I have the terrible hiccups.
- PROFESSOR EINSTEIN:** Ms. Schlau, Ms. Schlau! Be careful.
Don't hiccup too loudly, or you'll cause my apply pyramid to collapse.
- MS. SCHLAU:** Oh, but isn't that lovely.
- PROFESSOR EINSTEIN:** Yes, and that's why I don't want your hiccups to destroy this world wonder.
- CHRISTOPH:** How can we help you?
A glass of water is supposed to help. Or holding your breath. Or... hmm...
- PROFESSOR EINSTEIN:** No, Christoph, such methods are from the Dark Ages. Ms. Schlau, you're very lucky because 25 years ago I led a special research project called "Hiccdown".
- MS. SCHLAU:** Hiccdown?
- PROFESSOR EINSTEIN:** Yes. During this long-term research project I managed to develop three effective methods to get rid of annoying hiccups. Method number 1: Carefully pour a bucket of ice cold water over your head!
- MS. SCHLAU:** Whoa, Professor, just imagining doing that makes my hiccups worse.
- PROFESSOR EINSTEIN:** What? Oh. OK, if that's not working, there's a second method. Meticulously lick a warty toad three times.
- MS. SCHLAU:** Eeww! Never. Then I'd rather keep my hiccups.
- PROFESSOR EINSTEIN:** Alright, alright, alright. The most effective method is to bungee jump from a height of at least 200 meters.
- MS. SCHLAU:** Aaahhh! But I have a fear of heights.
- PROFESSOR EINSTEIN:** It's quite difficult trying to help you
- CHRISTOPH:** Perhaps a little distraction would help? We could just try and start our lecture.
- PROFESSOR EINSTEIN:** Very good idea, Christoph. Start the film. Isn't it lovely when ripe apples glow in the sun? Christoph picks one. But this one - it doesn't want to come off. It doesn't seem to be quite ripe yet. What is the difference? Why is it easy to pick one and not the other?

We decided to watch during the **apple (APFEL)** harvest. There are already so many ripe apples.

- MS. SCHLAU:** And these are fairly **easy (LEICHT)** to harvest. Turn a bit and gently pull up, and off comes the apple.
- PROFESSOR EINSTEIN:** Christoph wants to take a closer look. Mr. Boeckels shows him that the apples always break off at the same spot. Where the stem **begins (ANFANGEN)** and where the apple hangs from the tree. Christoph wants to look at this spot more closely.
- MS. SCHLAU:** And this is why he lets Mr. Boeckels cut off two branches full of apples. One from the tree with ripe apples and one from a tree on which the apples aren't ripe yet. Hm. Let's see. Thank you, Mr. Boeckels!
- PROFESSOR EINSTEIN:** Christoph then takes his two branches to Oliver. He can take a closer look at them under a microscope.
- MS. SCHLAU:** This is the unripe one. The stem is **difficult (SCHWER)** to get off. And this stem comes off easily, so this apple is ripe. Oliver wants to first look at the unripe one.
- PROFESSOR EINSTEIN:** So he cuts the stem off very close to the apple. He's interested in the spot where the stem **stops (AUFHÖREN)** and the branch begins. Using a very sharp knife, a scalpel, as it's also known, he first cuts off the leaves.
- MS. SCHLAU:** And under the microscope, he cuts it open lengthwise.
- PROFESSOR EINSTEIN:** And what do we see now? Inside the wood is still green – still fresh. And? Is it possible to see where the stem begins?
- MS. SCHLAU:** To the right is the stem. To the **left (LINKS)** is the tree. It's clearly visible, but inside you can see a continuous strand. It's no wonder that the stem is so firmly attached to the tree. And now the ripe apple. Oliver again cuts close to the apple.
- PROFESSOR EINSTEIN:** Not at the point where the apple comes off when it's picked. Another cut lengthwise. A strong cut. Will this one be different?
- MS. SCHLAU:** Look yourself, Christoph, says Oliver. There you can see that where the stem begins is a bit different. Oliver points at it again. There! Something happened there. The wood is different. In order to show us what is different, he found an even better spot - One where two apples are hanging on one branch.
- PROFESSOR EINSTEIN:** One is already ripe, the other is not. On the right, you see more **brown (BRAUN)** where the ripe apple was. That is where the stem would break off. Oliver wants to look at this more closely. He places the stem under his scanning electron microscope, which really enlarges things.
- MS. SCHLAU:** And this is what he sees. There is the **spot (STELLE)** where the ripe apple should break off. It's even easier to see in color. There, in the light brown area, there's a type of cork layer building. This protects the tree when the stem comes off.

And to the **right (RECHTS)** where the little hairs are, a tear is already visible - predetermined breaking point. This is where the apple should come off. And that's why it's so easy to **pick (PFLÜCKEN)** the apple once it's ripe.

- PROFESSOR EINSTEIN:** This one is difficult to pick. It doesn't seem to be ripe yet.
- MS. SCHLAU:** Mhm, delicious, such an apple. But it needs to ripen first, Christoph.
- PROFESSOR EINSTEIN:** Haha, so you really bit into a sour apple, eh, Christoph?
- CHRISTOPH:** Yes, you could say that.
- PROFESSOR EINSTEIN:** Science does sometimes require that you try things yourself. Congratulations on this research topic concerning apple stems.
- CHRISTOPH:** Thank you, Professor! Thank you.
- PROFESSOR EINSTEIN:** Ms. Schlau, do you still have the hiccups? Now I'm getting upset.
- MS. SCHLAU:** What should I do?
- PROFESSOR EINSTEIN:** We need to try methods that have not yet been researched. Now, please pull on your right ear while standing on one foot.
- MS. SCHLAU:** What? You mean like this? Aaah!
- CHRISTOPH:** Ms. Schlau. Everything all right?
- MS. SCHLAU:** Yes, everything's fine.
- PROFESSOR EINSTEIN:** They're still not gone? Well. We will just have to try something else: Please stick two fingers in your nose and then carefully turn in a circle.
- MS. SCHLAU:** What do you mean? Uh...?
- PROFESSOR EINSTEIN:** Here, I'll show you.
- MS. SCHLAU:** I think... Um...I think they're gone. Professor Einstein, the hiccups are gone.
- PROFESSOR EINSTEIN:** Haha, what do you say, dear students? Christoph, am I not a genius?
- CHRISTOPH:** I'm very impressed.
- PROFESSOR EINSTEIN:** Thank you. Thank you. It was nothing, really. Impossible. ...but, surely, I don't have...
- MS. SCHLAU:** Hiccups? Yes. How do you want to get rid of them? Ice water? Licking toads, or bungee jumping?