MS. SCHLAU: Hello, dear students. In today's lecture, we want to investigate the question on how plants move. So I've brought three plants with me: a sunflower, a basil plant, and…

PROFESSOR EINSTEIN: Hahaha, Ms. Schlau, did I hear you correctly? Plants can move themselves? Haha, I have never gone for a walk with a tree. Hehehe.

MS. SCHLAU: Professor, I thought you were eating lunch.

PROFESSOR EINSTEIN: Yes, I wanted to, but my salad just ran off on its own! Hahahahaha.

MS. SCHLAU: Don't tell me you are making fun of my scientific discipline of biology!?

PROFESSOR EINSTEIN: No, of course not. But plants that run around – please, Ms. Schlau – that's just silly. Haha.

MS. SCHLAU: If you don't believe it, then please just watch the film made by our field researcher Christoph.

PROFESSOR EINSTEIN: Haha! Gladly. Hehehe. Hey, sunflower. Do you want to race? Whoever gets to that wall first gets extra fertilizer. Hahahaha.

MS. SCHLAU: JOWO, start the film right now!!!

Field researcher Christoph recently walked by a field of **sunflowers *(SONNENBLUMEN)***. And he asked himself if it's really true that sunflowers turn themselves towards the **sun *(SONNE)***. In the **mornings *(MORGEN)***, the sunflowers look one direction: towards the east, where the sun comes up.

Christoph simply set up his time lapse camera and observed the sunflowers for the whole day. Every 30 seconds, the camera goes "CLICK" and takes a picture. Then you can look and see what happens over an entire day. The **shadows *(SCHATTEN)*** move with the passing of the sun. But the sunflowers don't turn. Not at all. In the evening they're still facing the same direction as in the morning.

PROFESSOR EINSTEIN: That's what I'm saying. They don't move.

MS. SCHLAU: Wait one second, Professor. Christoph then asked a sunflower expert. No, the flower heads don't turn, he said, but the **young *(JUNG)*** ones here which haven't bloomed yet - Christoph could get lucky there. So he set up his camera again next to the young sunflowers. He adjusts it closely to bring the young sunflowers into focus. OK, and because Dr. Hahn, the sunflower expert, couldn't say what sunflowers do in the night, Christoph laid electricity out on to the field.

The plug is ready to go. He brought extension cords and set up spotlights, and then there was nothing left to do but wait. And this is what the camera recorded. Well, what do you say now, Professor?

PROFESSOR EINSTEIN: It's true, the **plant *(PFLANZE)*** is moving.

MS. SCHLAU: And in the evening it faces the setting sun. Towards the **west *(WESTEN)***, the opposite direction. It slowly gets **dark *(DUNKEL)*** and the sunflowers straighten themselves up again and even turn themselves further. Now, with the sunrise, comes the morning fog and the sunflowers are once again leaning towards the rising sun. The next day they follow the sun's path again. The wind may wobble the flowers a little, but they don't let that disturb them, and turn westwards always following the sun. In the **night** time ***(NACHT)***, it's the same thing. The plants straighten up and then turn themselves towards the **east *(OSTEN)*** where the sun rises. It truly was worth staying awake. Now Christoph finally knows which sunflowers turn towards the sun: The young ones. And once they're blooming, they don't turn any longer, but they still look wonderful.

PROFESSOR EINSTEIN: Alright, Ms. Schlau, I have to admit your evidence is convincing. Using time-lapse footage, you can indeed see the young plants slowly moving their heads.

MS. SCHLAU: Oh, there are also plants that move lighting-fast. For example, the Venus flytrap. JOWO, show the students a close-up.

PROFESSOR EINSTEIN: Ha, oh, really? Hello, my little green Venus thingy? Can you jump, dance, or do a somersault? Ohhh… ow! It bit me! That thing just bit me! Bandage, 911! And put a warning sign on that thing right away: Caution: Biting Greens. Aaaahhh…

MS. SCHLAU: Dear students, when it comes to the Venus flytrap, we are talking about a meat-eating plant. When it's touched, it can snap shut so quickly that it can even catch flies. But every once in a while, it will also bite Nobel Prize winners.