

[Narrator] Straight from the land of fantasy, amidst the oddities, the curiosities, the magic, and the wonder, we present Mr. Murgle's Musee. [Elfin] Goodness. What's going on here? Just a second ago, I was arranging the small things from Egypt in their display cases. And now I'm up here on the ceiling. Goodness me. I wonder what happened. Let's see. I can walk around just like this. In fact, I can even dance, see? What oops goodness me. I'm suspended in midair. I don't understand this at all. Let's see. As long as I stay right about here, I'm fastened to the ceiling. And when I move over here, I start to fall. This certainly is a mystery. Mr. Owl, do you know what's going on around here? Oh. You, Mr. Owl. You know what's happened in the musee? Oh Golly me, this is unusual. I feel like an upside down cake. [Mr. Murgle] Elfin Oh, Elfin, will you come here, please? [Elfin] I can't, Mr. Murgle. I'm up on the ceiling. [Mr. Murgle] Well, just as soon as you finish your dusting. Oh, you know, for a minute I thought you said you were up on the ceiling. [Elfin] I am, Mr. Murgle. I'm up on the ceiling. [Mr. Murgle] Oh, wait, you come right down off there. My goodness, that's a silly place to be. Now, you come right down. [Elfin] I would if I could, Mr. Murgle. But but I can't. Oh, oh, wait a minute. I'll try this. I'll walk a little this way. Oh, oh, look, I'm beginning to fall ever so gently, though. [Mr. Murgle] Goodness me, that little elf seems to find more things to do. First, he's sweeping and then he's dusting, and then he's fixing things, and then he's up on the ceiling. My goodness, I've never heard of such a thing. [indistinguishable] what's next? Oh, there you are. Now now tell me, how did you ever get up to the ceiling in the first place? [Elfin] I don't know. I was very carefully arranging the Egyptian thing in the cases. And just as as soon as I put the little Egyptian boat into the case, I felt myself rise slowly into the air. That was the only place in the entire room where it happened. I was dusting all around the room today, and it was just where the Egyptian boat was that it happened. [Mr. Murgle] Well, well, now, how could that have happened? Oh, oh, goodness me. Tell me something. Did those men deliver the big rocks today? [Elfin] Yes, sir. I remember very clearly that they delivered them today. [Mr. Murgle] So why is that? [Elfin] Well, when the big rocks were delivered, I met the men at the door, and as soon as I came to close the door, the big rocks pulled me right through them. Oh, Mr. Murgle, it's the same rocks. It's the same rocks. They pulled me to them. I thought it was the wind blowing at me. Mr. Murgle, it was the rocks. [Mr. Murgle] And where did they put the rocks? Upstairs, near the Norsemen things. [Mr. Murgle] Oh, and the Norsemen things are directly over the [together] Egyptian boats on the first First floor. [Mr. Murgle] That's right. That's right. And just as soon as you step near the Egyptian boats, you were attracted to the ceiling. [Elfin] Attracted? [Mr. Murgle] Pulled up to the ceiling. Oh, here, little Elf, let me see your shoes. [Elfin] What's important about my shoes? [Mr.. Murgle] Why the nails! What are they made of? [Elfin] You mean, what are the nails made of? [Mr. Murgle] That's right. [Elfin] They're made of elven cobblers iron. [Mr. Murgle] They're made out of iron, then, and how much do you weigh, Elfin? [Elfin] 100 pebbles, sir. [Mr. Murgle] Oh, let's see now. 100 pebbles. Goodness me.

100 pebbles are very light, so you, Elfin are not very heavy. So you see, Elfin, you weren't attracted to the ceiling. The iron nails in your shoes were. And that's why you seem to fly up to the ceiling. It was the cobblers nails in your shoes. [Elfin] They must have been powerful stones to do that. [Mr. Murgle] Oh, indeed, they were. Fact is, I have one of them right here. Here, come a little closer. [Elfin] Thank you, sir, but I'd rather not. [Mr. Murgle] Oh, come now, these are just tiny little pieces of the big stone you saw. [Elfin] Well, if you say so. [Mr. Murgle] There now, didn't hurt, did it? [Elfin] No, sir. [Mr. Murgle] And you know, I wouldn't do anything to harm you anyway, don't you? [Elfin] Yes, sir. [Mr. Murgle] Well, then, now look here, you see, I have two small wooden bowls, and each bowl has some tiny iron nails in it. Now you watch, I'll lift this stone and see what happens. You see, the nails stayed right where they are. They didn't move. And now I lift this stone, and look there you see the tiny nails are attracted to the stone. [Elfin] I see what has happened, but I don't understand why. [Mr. Murgle] Well, this stone is called a loadestone and it has the power to attract certain metals. And iron happens to be one of those metals which it attracts or draws to it. And this lodestone is called a natural magnet. [Elfin] A natural magnet? [Mr. Murgle] That's right. That's what it's called. [Elfin] A loadestone? [Mr. Murgle] That's right. That's very good. Now, just as soon as men learn that a lodestone could attract things, he tried to make his own magnet. [Elfin] But a loadstone is a piece of rock, Mr. Murgle. How could anyone make a rock? [Mr. Murgle] Well, well, man didn't exactly make a rock. He had to use a little common sense in doing what he did. First of all, he said to himself, Now, that's a rock. And what is a rock made of? [Elfin] Oh, I see that if he made his magnet out of whatever the rock was made of, then it would attract things. [Mr. Murgle] Well, you're you're almost right, Elfin. You see, the rock was made of iron. At least a good part of it was. But we know that all iron doesn't attract things. There's something about the iron that makes it attract things. And so, the first thing man did was to make a bar of iron just like this. And the man soon found out that the reason this plain bar of iron didn't attract things was because all the little pieces of iron that make up this great big piece of iron were not lined up. Now, you just imagine you can look inside this iron bar. And what it's filled with you imagine it's filled with the teeny weeny iron toy soldiers. You see? Just like this. You see all the toy soldiers, they're just pointing in all directions, see? One's looking over there and one's looking over there, and they're looking in all around. Now. Now let's play a game. Now, all you have to say is attention! Go ahead. Do you say attention! [Elfin] Attention! [Mr. Murgle] There, you see what happens. Whereas before they were all looking in different directions. Now they're all looking in the same direction, and now they're all lined up. [Elfin] Is the now it is the bar magnet. [Mr. Murgle] Yes, now the iron bar is a magnet because the little pieces of iron are facing in one direction, just like the soldiers. Now let's look at the iron bar again. Now, I'm going to take a sheet of white paper and put it over the magnet. You see, we call the iron bar a magnet now. There now. And next, I'm going to take some tiny bits of iron. Now, these

aren't magnetized, you see, and I'm going to sprinkle them all over the paper. Now, sometimes the little children go out to play in the field. So let's pretend that our little bits of iron are playing in the field, you see? That's the magnets field. Oh, and look, Elfin. You see, most of them seem to collect right here and right here, just like little children gathering near an ice cream stand. Only we don't call them ice cream stands where the little bits of iron collect. We call them poles. You see right here now, this is a pole, and this is a pole. [Elfin] But how do you tell the poles apart? [Mr. Murgle] Well, to make it very simple, we call this pole a north pole and this pole a south pole. Now, isn't that simple? [Elfin] Yes, sir. [Mr. Murgle] Now, you watch. I'm going to dip the north pole into the little nails, and we'll see what happens. [Elfin] The nails are attracted to the north pole. [Mr. Murgle] That's right. That's right. And now I'm going to dip the south pole into the nails. And now what happens? [Elfin] The nails are attracted to the south pole. Oh, that's easy, Mr. Murgle. [Mr. Murgle] Now, do you know what? [Elfin] What, sir? [Mr. Murgle] Well, now I'm showing you a bar magnet. And what other kind of magnet did you see, Elfin? [Elfin] A loadstone, a natural magnet. [Mr. Murgle] That's right. And now, do you know that if we took a bar magnet and bent it, so it formed a letter U, then we'd have a horseshoe magnet. Now, you look here, little Elf. I have three different horseshoe magnets. You see? Here's a little tiny horseshoe magnet. Oh, this one's mighty small. And here's a horseshoe magnet that's a little bigger. And this third magnet here is a real big one. Now, you look closely, Elfin. You see, these magnets are different, but you tell me why they're different. [Elfin] Well, they're different colors. [Mr. Murgle] Oh, my goodness, Elfin. The colors have nothing to do with the difference we're interested in. You tell me now, what's the difference? [Elfin] Well, you said that one is bigger than the other. [Mr. Murgle] Oh, that's right. There's a difference in the bigness, the size. Now, see, there's a small one, a middle sized one, and a great big one. Now, I want you to see another difference. You see, now I'm going to let down the small magnet on this string. There now. Now I'm going to raise the magnet up and take a good look now and notice how many nails it picks up. [Elfin] Oh, there are quite a few. [Mr. Murgle] Yes, yes, that's right. But now you watch when we pick up the nails with the middle sized magnet. There, you see? [Elfin] Oh, there's even more in the middle size than on the little magnet. [Mr. Murgle] That's right. Now watch when we pick up the nails with the great big giant magnet. [Elfin] Golly, that picked up almost all of them. [Mr. Murgle] That's right. And so you see, not only do we have a difference in size, but we also have a difference in the power of these magnets. And the giant one is the most powerful of all. And now do you know what? [Elfin] What, sir? [Mr. Murgle] Well, we've been attracting nails, unmagnetized nails, mind you, with our magnets. But what do you think would happen if we tried to attract other magnets? [Elfin] The same thing? [Mr. Murgle] The same thing? Well, look partly right. Now, remember, there are two poles to every magnet. And what are they? [Elfin] The North Pole and the South Pole. [Mr. Murgle] That's right. But look at this. You see here now, here's

a North Pole and the South Pole. And when you put them close together, they attract. Now remember, that is a north and a South Pole. Now watch. Now, here are two North Poles. Now, see what happens. You see, they push away from each other. They repel. Now, the same thing would happen if we'd have put two South Poles together. Since they'd be the same, they'd repel each other. Now, you watch this. You see, these are actually two magnets. And what are they doing now, Elfin? [Elfin] They're they're pushing away from each other. They're repelling each other. [Mr. Murgle] That's right. And now, what about this? [Elfin] The two magnets are drawn to each other. [Mr. Murgle] And what are they doing? [Elfin] Attracting each other. [Mr. Murgle] Mm hmm. That's right. And now we're going to play a game. You see, here on the table, I have a piece of aluminum, piece of copper, a piece of brass, some wood, some glass, and some iron. Now, actually, this is a magic wand, this magnet here, because it will pick up only one of these things. Now, you tell me which one. Now I'll hold it over the aluminum. [Elfin] No. [Mr. Murgle] The copper? [Elfin] No. [Mr. Murgle] The brass? [Elfin] No. [Mr. Murgle] The wood? [Elfin] No. [Mr. Murgle] The glass? [Elfin] Nope. [Mr. Murgle] The iron.? [Elfin] Yes, yes. [Mr. Murgle] My goodness, but you're a smart little elf. Oh, land sakes, we've been so attracted to this magnetism we've forgotten about the time. Now, next time we're going to turn back the hands of time and look into the mysteries of the past. And you know what? [Elfin] What, sir? [Mr. Murgle] Many mysteries of the past have never been solved. But someday, if we're smart enough, we'll find the answers. Yes sir, Elfin I'm sure we will. [Narrator] Mr. Murgle is Ron Newber. The Elfin is Carol Coughlin. And they live in Mr. Murgle's Museum, which was directed by Les Harkis. This program was created and produced by William H. Tomlinson and originated in the Little Green Meadow near Michigan State College.