mystery science

Grades K-5
Mini-Lesson: “Why do our skeletons have so many bones?”

VIDEO TRANSCRIPT

Hi, it's Doug! These are my favorite pajamas. They're awesome. They're even realistic—check this out. This is a model of the human hand, and there are the pajamas, right there. It's pretty detailed, isn't it?

Someone named Gideon has a question about skeletons. Let's give him a call.

[Video Call]
-Hi, Doug!
-Hi, Gideon!
-I have a question for you. Why do our skeletons have so many bones?
-That's a great question.

We do have a lot of bones. Scientists have counted them and found out that there are more than 200 bones in our body. But before we can answer why there are so many, think about this: Why do we even have bones at all? I mean, what good are bones? What do they do for your body?

Well, when thinking about what bones do, funny enough, it might be helpful to think about a building like a skyscraper. When people make a building, first they start with some kind of steel or wooden beams. They create a structure, something that's in the shape of the building, and

only once they've done that do they add the walls, the windows, the roof, and so on. Sometimes we even call this the skeleton of a building. Your skeleton is no different. The bones are like the steel beams of a building. They give your body its structure. Now imagine for a second if you had no bones at all. What would happen? Think about it. You'd just flop over. You'd look like this. There'd be nothing to hold you up. So, that's what bones do for us. They give us a structure. But why so many bones? Why do we have over 200 bones in our body? Take your hand, for example. You can see in this X-ray of a hand there are a lot of bones. Just in the top part of one finger, there are three bones. What's the point of that? Use your imagination again. Imagine if your finger had only one bone in it. What would go wrong? You can see there'd be nowhere for your finger to bend—you couldn't bend your finger. Each of the places on your body where you can bend something, that's called a joint. So you see, by having more than one bone in each finger, that allows your finger to bend. Now think of all the places on your body that can bend. Your neck, your legs, your arms. You see, if you didn't have so many bones in your body, you wouldn't be able to move in so many ways. So in summary, without bones, our body would have no structure. You literally couldn't stand up. And by having so many bones, that allows our bodies to bend in many places. Without that, we wouldn't be able to move.

That’s all for this week’s question. Thanks, Gideon, for asking it.