

**CONNECT to the topic page 72**

**Prospective student Max:** Wow, that's a colorful building. Do you know what it is?

**Campus tour guide Leila:** Yeah, that's the Child Development Centre. I really like it. It's known for its sustainable design and construction. It has a lot of nice "green" features. I read somewhere it saves 70 percent in energy costs per year and uses 55 percent less water than standard buildings do.

**Max:** Hm. Maybe the design is good for the environment, but to tell the truth, I don't like how the building looks.

**Leila:** What's wrong with the design?

**Max:** Well, it seems like there was too much concern for the environment. I can see all the solar panels. I know that the design lets in lots of natural light, but it's just not a beautiful building.

**Leila:** What specifically don't you like about the design?

**Max:** It's too square. It's like a big box with too many colors. There's no flow to the building.

**Leila:** Hm. I like it. I think the colors make it seem alive and inviting. I've been inside. It's really nice. It has an open main floor, with an artist mural, and beautiful stairs.

**Max:** That all sounds great. But a building should be beautiful from the outside as well as the inside so that everyone can enjoy it.

**Leila:** Yeah, but what makes a building beautiful? Everyone's ideas about that vary. Even you and I don't agree here—there's no way a building is going to please everyone.

**Max:** No, but architects need to think about good design—not just the environment.

**Leila:** Sure, I agree.

**Max:** Speaking of good design, have you ever been to the ...

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**Speaker:** OK, let's move on. Now I want to tell you the term we use to explain the reason a building is built. We say "the program" of a building to mean the reason for building it. For example, think about churches, mosques, and temples. The program for these is religion, right? What about theaters, sports stadiums, concert halls, and clubs? Places we go to have fun. The program for these is entertainment. Now, it's important to understand why we specify the program of a building. Often there are a lot of

people involved in designing a building. So we want everyone to keep in mind what we're designing it for. Are you with me? Good. Now, before I go on, I want to highlight what I've said so far. *Program* is the term for the reason a building is built. Any questions?

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**Professor Zachary Boyd: E01** OK. Today we're going to talk about Frank Gehry, one of my favorite architects. **(COACHING TIP 1)** If you've seen any of the buildings he's designed, like the Dancing House in Prague, you'll know why. It's a wonderful, colorful building near the river. Many tourists go to see it. But today, we'll consider Frank Gehry's work not as tourists, but as architects. **E02** It's understood that architecture is both the science and the art of designing buildings. We use science to make sure that the building is strong. And we use art because we want the building to be beautiful. In other words, we think about the aesthetics—or artistic value—of the building. **E03** Now here I want to mention Vitruvius, the Roman architect who lived in the first century BCE. He said that a building must have three fundamental characteristics. One, meet its intended use; two, be sound (which means strong); and three, be beautiful. He wrote these ideas 2,000 years ago, and they're still the foundation of architecture today. **E04** Let's go over these three characteristics in depth: First, a building must meet its intended use. Architects must think about the reason the building is being built as they design it. For example, the intended use for a school is a place to learn, right? Here architects must ask themselves: What type of design is best for both students and teachers? Second, a building must be structurally sound. What do I mean by this? I mean the design must follow these basic principles: Is it safe? Will it last a long time? Will it protect people from bad weather? Architects agree that a building must be able to do all of these things. **E05** Third, a building must be beautiful. Aesthetics is a harder principle to agree on. And, buildings last a long time if they're built properly. And so something built 50 years ago may not be considered beautiful now. Styles in architecture change, like with clothes or cars. All right, to highlight what I've said thus far: In addition to meeting the intended use, a building's design must also be structurally sound and aesthetically pleasing to people. Is everyone clear on this? **(COACHING TIP 2)** **E06** Now, I'd like to shift to talking about Frank Gehry's work, and how he applied these three characteristics of architecture. Have any of you seen his buildings? Like the Walt Disney Concert

Hall in Los Angeles? Or the Fish Dance restaurant in Kobe, Japan, that looks like a gigantic fish? I see a few hands, great. Then you'll know what I mean when I say his style is very distinct. He was an architectural pioneer who wasn't afraid to try new ideas. His designs are exciting and inspirational because they push us to explore the possibilities.

**E07** Specifically, how can we describe his style? I can think of three words: resourceful, playful, and innovative. It's resourceful because of the building materials. It's playful because of the bright colors and fun designs—like his store in Venice, California, with giant binoculars at the entrance. And, it's innovative because he said good-bye to traditional architecture and experimented with new ideas.

**E08** Now let's look at these three descriptions one at a time. **(COACHING TIP 3)** Resourceful. In the 1970s, Gehry started utilizing simple building materials in his designs, like sheet metal and plywood. In fact, he's famous for using chain-link fence, the kind of fence you see around construction sites to keep people out. (I'm sure you've all seen it around a building being built.) Since he knew the fencing would always be there, he decided to use it in his designs. For example, he designed a mall in California with a huge wall—six stories high—covered in chain-link fence! (He went on to use other materials, of course, but started there.)

**E09** Playful. His designs use bright, bold colors like yellow, orange, blue, and gold. Examples include the EMP Museum in Seattle and the DG Bank Building in Germany.

**E10** And finally, innovative. Many of his buildings don't have straight walls. He uses irregular angles and shapes. A great example of this is the Vitra Design Museum in Germany. That's V-i-t-r-a. The building looks like it could fall down, to be honest. But of course it won't because Gehry designed it to be structurally sound.

**E11** So how did Gehry develop his dynamic style? Up until the early 1970s, he did traditional architecture. However, he didn't feel it allowed him to be creative enough. He began experimenting with his design ideas by working on houses, including his own house in Santa Monica, California, which he worked on from 1977 to 1978. Many neighbors didn't like the design of his house, but Gehry did.

**E12** Now we ask, why did he develop this distinct style? He once said that he thinks like an artist. For him, a building is like a big sculpture or a big work of art. He pushes the limits of what is structurally possible from an engineering standpoint in order to create beautiful buildings. **(COACHING TIP 4)** But I want to stress, he's also said that he always keeps in mind that a building is a sculpture that people interact with. If the building doesn't please them as a work of art and meet the intended use, he's failed in his objective.

**E13** In closing, I want to say that Frank Gehry is a noteworthy architect because his work challenges me and other architects to consider how to use simple materials while designing strong, beautiful, and purposeful structures. Now go build something.

## HEAR the language page 78

- 1 It's a wonderful, colorful building near the river.
- 2 We use science to make sure that the building is strong.
- 3 He said that a building must have three fundamental characteristics.
- 4 First, a building must meet its intended use.
- 5 What type of design is best for both students and teachers?
- 6 Is it safe? Will it last a long time?
- 7 Styles in architecture change, like with clothes or cars.
- 8 Have any of you seen his buildings?
- 9 Specifically, how can we describe his style?
- 10 I can think of three words: resourceful, playful, and innovative.

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**Qiang:** You know, Frank Gehry's work is so cool. All those wild shapes and strange angles? That guy's going to go into the history book as one of the greatest architects ever.

**Michael:** Hmm. I mean, I can see why you'd say that—his buildings are distinct. But, in my opinion, he'll be forgotten by history.

**Qiang:** Huh?

**Michael:** Well, I mean, his work's like bubble gum. You chew it for 20 minutes, and then you're bored with it.

**Yhinny:** What? I wouldn't say that. Maybe his work might not excite you. But his buildings can be found all over the world—and I mean, come on, they're unlike anything else!

**Michael:** I mean, I hate to disagree but to me, "different" doesn't mean "good."

**May:** OK, then what would you say about his engineering abilities—can you say he's noteworthy for that?

**Michael:** OK, sure, I can see that. But then why doesn't he put those abilities to use in a more practical way? Like building bridges?

**Yhinny:** OK, OK, Mike, so you're the traditionalist.

**May:** OK, I mean, to tell you the truth, I'm not too crazy about his work either. But I think his—I don't know how to say it, resourcefulness?—is inspiring. I mean, to use old building materials—chain-link fence and plywood—it's so much better than throwing it away.

**Qiang:** So here's our environmentalist!

**Michael:** OK, well then what about you two? What are you? I mean, are you traditionalists? Modernists? Or what?

**Qiang:** I don't know. What are we?

**Yhinny:** I don't know. I guess you can just call us Frank Gehry enthusiasts!

**Michael:** Maybe you guys should start a fan club.

**Qiang:** Maybe we will.