

Science speakers

Architecture

Purpose of the program

The purpose of this program is to help children connect their science curriculum to interests and careers and to stimulate their curiosity. We wish to awaken children to the wide variety of jobs that people do and help them understand the necessity of a good education to getting the jobs. By illustrating how basic science concepts are used in their work, speakers show how science is fundamental to daily life.

Architecture intersects with the second grade, third grade, and fifth grade science curriculum. Below are content points and a general outline to help you structure your talk.

Reminders

Plan your presentation to run about 20 minutes. Then give the children 5-10 minutes for questions.

Children love to see examples; it helps them remember and understand. Any items you can show them from tools to building materials, will impress and delight them.

Please arrive at the school office at least 10 minutes before you are scheduled to speak.

Call **Mary Goljenboom** at United Way of Lake County with questions: **847 775 1058**.

What the children are learning

Second graders (age 7) study air and weather. They learn that weather changes the course of a year. The science content includes the following points:

- Weather changes from day to day and over the seasons.
- Each season has a typical weather pattern that can be observed, compared, and predicted.
- Temperature and precipitation are components of the weather.
- Wind is moving air.

What you could say

Define your job. For example, *An architect plans and designs buildings.*

Explain to the children how the science they are learning is used in your job. For example, *Buildings must be strong enough to survive tornadoes, floods, and snow & ice storms. We use materials that stand up to extreme heat and cold of our region.*

Please tell the children about the duties and responsibilities of your job. Please also tell them some of the things that you enjoy about it. As you explain and/or demonstrate, please remind the children of some of the science points above. You do **not** need to refer to all of them.

Please tell the children what kind of education is needed to do the job and how you got interested in this work.

What the children are learning

Third graders (age 8) study measurement. They learn to measure length, temperature, mass (weight), and volume (fluid measurement). The children are also learning the metric system but **speakers do not need to use metric**.

The science content includes:

- Length is how far it is from one point to another.

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- Temperature is a measure of how hot or cold something is.
- Volume is the three-dimensional space occupied by something.
- Standard units of measure allow people to make measurements that have definite meaning to others.

Define your job. For example, *An architect plans and designs buildings.*

Explain to the children how the science they are learning is used in your job. For example, *Architects measure the size of the building and the size of the rooms.*

Please tell the children about the duties and responsibilities of your job. Please also tell them some of the things that you enjoy about it. As you explain and/or demonstrate, please remind the children of some of the science points above. You do **not** need to refer to all of them.

Please tell the children what kind of education is needed to do the job and how you got interested in this work.

What the children are learning

Fifth graders (age 10) study models and designs. They learn to design and construct conceptual and physical models.

- The way something is put together is its design.
- A model is a representation or explanation of a system or interaction that cannot be observed directly.
- Conceptual models can be communicated through words and drawings.
- Physical models are constructed to demonstrate how something works or how it is constructed.

What you could say

Define your job. For example, *An architect plans and designs buildings.*

Explain to the children how the science they are learning is used in your job. For example, *An architect makes drawings and computer images to show how projects will look when completed.*

Please tell the children about the duties and responsibilities of your job. Please also tell them some of the things that you enjoy about it. As you explain and/or demonstrate, please remind the children of some of the science points above. You do **not** need to refer to all of them.

Please tell the children what kind of education is needed to do the job and how you got interested in this work.