

Grade 5 Informational

Buildings That Soar

At what point do people think of a building as tall? Is a five-story building tall? A ten-story building? What about a hundred-story building? People would surely say a hundred-story building is tall. In fact, a building that tall is often called a skyscraper.

Improvements

Until the nineteenth century, few buildings had more than six stories. It was not safe for buildings to have more than a few stories. At the end of the nineteenth century, new materials were developed. These materials and ways to use them made taller buildings possible.

Four key improvements changed the way tall buildings were built. Steel was used to make strong frames for buildings. Reinforced concrete also made the buildings stronger. Water pumps let water reach all floors. Elevators made it easy for people and materials to go to high floors. Tall buildings were safer and stronger.

Tall Buildings

An architect is a person who designs buildings. Louis Sullivan was a famous architect. When designing buildings, Sullivan believed that “form ever follows function.” He meant that the first thing to think about was how the building would be used. Only after that was known should the architect think about how the building would look. This idea made some architects think of design in a new way. They thought about how the space in the building could be used. This idea shaped the design of skyscrapers.

William Jenney was another architect. He designed the first skyscraper, the Home Insurance Building. The skyscraper was built in Chicago, Illinois. This building was ten stories and 138 feet tall. It was finished in 1885.

Buildings Grow

Skyscrapers were useful in the cities of New York and Chicago. There was little space to build in the downtown areas of these cities. It made sense to build up into the sky.

Between 1885 and 1930, more tall buildings were built. The height of buildings stretched up to the seventy-seven-story Chrysler Building. In 1930, the tallest building in the world at completion was the Chrysler Building in New York City.

Just one year later, the Empire State Building quickly overtook the record. It towered over other buildings. It had 102 floors and was 1,250 feet tall. The Empire State Building remained the tallest building in the world until 1972.

Today buildings continue to soar higher. Records are set with each new skyscraper. How tall will the tallest building be in ten years? In fifty years? In a hundred years?

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Going Green

Selena reached over and turned off the radio in the car. “I don’t want to hear about it,” she said when her mother looked at her. “We all know Jefferson Elementary won first prize again in the State Science Fair. It is no surprise. This is the fourth year in a row they have won first prize.”

Selena could feel her mom frowning without looking at her. “I’m sorry, Mom,” said Selena. “I am just tired of hearing about other schools winning prizes. Last week, Lake Hood Elementary received an award for serving the healthiest lunches in the city. The week before that, Hamilton Elementary won an award for students reading the most number of minutes in the state. I wish Elliot Elementary could win an award for something. All we know how to do is grow flowers.” Selena’s mom smiled. She remembered how excited Selena had been when her class planted a flower garden on the school grounds.

“Growing flowers is unusual for a school,” she reminded her daughter. “Remember the television show we watched last weekend about ‘green’ schools? Maybe you could use that idea.” As Selena got out of the car, Mom said, “Have a good day in school.”

All morning Selena could not stop thinking about her mom’s suggestion. During lunch, she pulled out a piece of paper and a pen. She used ideas from the television show to create a list of ways her school could become “green.” After only a few minutes, her list looked like this:

1. Start a school-wide recycling program.
2. Use fluorescent light bulbs.
3. Reduce the amount of paper being used.
4. Help others use fewer plastic water bottles.

Selena knew there were many other ways the school could be “green.” However, some of those steps would mean spending money instead of just making some changes. She thought if she could get others to make some of the changes on her list, her school would have a good start at becoming “green.”

Selena went home and finished her homework. She spent the rest of the evening writing steps needed to make her ideas work. She quickly saw that her ideas asked students, teachers, and staff to work together.

At the school library the next day, Selena went online to find out how much money could be saved if her ideas were used. She knew facts would help get people to

listen.

Finally, after a week of writing and rewriting, Selena was ready to present her plan. She set up a time to meet with Principal Adams. She explained her ideas for having the school become “green.” She told how much money the school could save if some of the changes were made.

“Selena, I am impressed,” said Principal Adams. “You have some wonderful ideas. Let me take them to the next school board meeting. We will see if the people on the school board like your plan.”

Selena was thrilled when she heard the school board had said yes to her “green” ideas. Elliot Elementary began to make big changes. Light bulbs were changed. Recycling bins were placed in each classroom. The school began selling reusable water bottles with “Elliot Elementary” printed on them. The number of plastic water bottles thrown away decreased. Fewer papers were being used. Students, teachers, and staff were also finding ways to reuse paper.

At the end of the school year, Selena was very excited when Elliot Elementary was given an award for the Greenest Elementary School in the City. When the report came on the local radio station, Selena could not help but reach over and turn up the volume. “Now, this is news a person can enjoy,” she said with a grin. Selena’s mom just smiled to herself once more.