

The 1st grade English communication I Cross-curriculum lessons Part9

The 1st grade English department

Textbook: Essential Reading Student Book1 Unit2 Big City Life

Period: February

● This lesson's purpose (Only cross-curriculum lessons)

- To consider the causes of ground subsidence
- To think about the relationship between urban development and ground subsidence in term of Earth Science.
- To consider the problems of a great number of skyscrapers in big cities.

● Introduction

- To learn about Chinese history and modern style in-depth.
- To think about the merits and demerits of a lot of skyscrapers in big cities, such as Shanghai, New York and Tokyo.
- To learn about demerits from reading.

⇒ Students' opinion

○ Skyscrapers' merits

- We can make use of narrow space.
- Tourists can enjoy the scenery from skyscrapers.
- We can be proud of our city's development .

▲ Skyscrapers' demerits

- They are dangerous when earthquakes happen.
- Airplanes and birds might hit them
- Lower buildings don't get much sunshine.

- Students read their textbook and understood the demerits.

○ The primary cause of ground subsidence (according to the textbook)

The buildings which were built in soft ground and wetlands have been leaning. Not only skyscrapers but also normal houses and lower buildings lean.

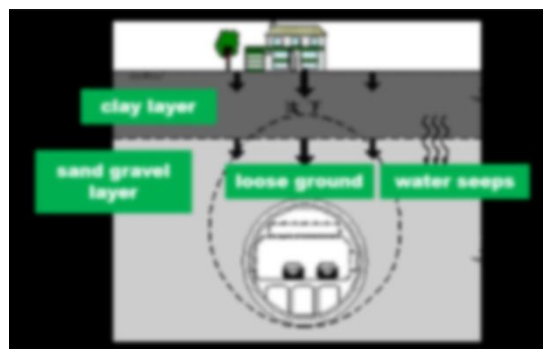


←Example : The Leaning Tower of Pisa and The Leaning Tower of Suurhusen.



○The secondary cause of ground subsidence (according to the textbook)

Due to the construction of subways, the ground around tunnels loosens and affects tunnels' shapes. We explained the effect using illustrations.



●New vocabulary

lean, layer, soft ground, sand gravel, clay, underground water, ground subsidence, swamp, farmland, etc.

●Summary

The students have not learned about Earth Science. Therefore, we thought that it was difficult for them to understand the mechanism of ground subsidence and liquefaction in English.

Not only in Shanghai but also Japan, the more urbanized cities became, the more they had a lot of problems with the ground. We hope that the students understood the relevance of the problems.

Our science teachers gave us useful advice, so we could explain the mechanism of ground subsidence briefly and understand how to discuss the advantages and disadvantages of the construction of skyscrapers with the students.