

# Taipei 101 3D

*Teaching Global Landmarks, Architecture and Skyscrapers through 3D simulation*

## Lesson

Teaching Global Landmarks, Architecture and Skyscrapers through 3D simulation

## Objectives

Students will gain a basic understanding of Taipei 101 through 3D simulation and visualization.

## Activity

Students travel through Taipei 101 in real-time 3D, helping them to visualize and understand its structure, function, and symbolic importance.

## Materials

### Taipei 101 3D Homepage

(cut and paste URL into browser, or Ctrl+click on picture above)

<http://www.sunrisevr.com/taipei1013d>




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## 3D Simulation and Investigation

*3D simulations are designed to make subject matter more engaging to today's technology-savvy kids, and help them bridge the gap between the "concrete" world and the abstract world of concepts. When students experience complex subject matter in real-time 3D it becomes clearer. Students learn best when they are actively immersed in subject matter from a variety of different viewpoints; 3D simulation is designed to help students visualize difficult ideas and objects through investigation at any scale (atomic, cellular, planetary, conceptual, etc), and doing things that would normally be impossible.*

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## Required Technology

- PC/Tablet

## Optional Technology

- Projector
- Multiple Computers
- Internet Connection

## Grouping

- Large Group Instruction
- Small Group Instruction

## Staging

Check computer/tablet for Internet access if needed

## Procedure

1. Access program
  2. Pick a lead student navigator to control movement through the 3D environment
  3. Pick a lead student reader to read information about Taipei 101 as it appears on-screen
  4. Begin the lesson by asking students what they already know about Taipei 101; write responses on the board
  5. Review basic facts about the Taipei 101 including:
    - Taipei 101 is located in Taiwan, a country in Asia
    - Taipei 101 was the tallest building in the world when it was built
  6. Start traveling through the program, facilitate discussion by asking students where the class should go.
  7. Use the 3D simulation as a visual aid; explain information as needed
  8. Have students pay special attention to:
    - The height of Taipei 101
    - The technology used to keep the building stable
  9. Have a final wrap-up with students with a question and answer period about Taipei 101. Ask them where it is located, and why it is important. Ask them what parts of Taipei 101 they found interesting.
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## Optional Activity: 3D Scavenger Hunt + Discussion

Have students find a particular part of Taipei 101, such as the Mass Damper. If students are on multiple computers, have them “race” to the part of Taipei 101 the teacher wishes to highlight. Once students find/arrive at the location, the teacher may commence discussion. Repeat in other areas of the simulation as desired to build understanding.

## Homework/Review

Students may also access the program outside the classroom to supplement textbook questions

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## Functional Notes

1. The program is available on multiple platforms
2. If using the program online, please ensure the Unity3D Player is installed on the computer; through the Internet Explorer Browser; download the latest at <https://unity3d.com/webplayer>.
3. If you see something in **red** you can probably click on it
4. For ease of use you can go through most 3D objects, and even the ground
5. The school library can request and access programs (free) at [www.sunrisevr.com](http://www.sunrisevr.com) for off-line use via PC and Mac if there is no internet connection