

The Time Traveller: Burj Khalifa – Lesson Activities

Activity 1: Pre-Game Introduction (10 minutes — Before Fortnite)

The teacher then introduces the Burj Time Traveler island, explaining:

- It is a reconstruction of Burj Khalifa's 8-year construction process inside Fortnite.
- Students will travel back in time to four key years: 2002, 2004, 2007, and 2010.
- To travel in time, they must learn. They can't progress forward without interacting with the knowledge portals.
- They will play as a researcher helping on-site workers while documenting the construction history firsthand.

Activity 2: In-Game Exploration (40–60 minutes — Inside Fortnite)

Students launch the Burj Time Traveler island and follow the game's narrative structure. Teachers should circulate or monitor via screen share, pausing the group at designated checkpoints (see below) for brief class discussion.

Teacher Checkpoint 1 — After Time Tunnel 1 (2002 Vision Phase):

Ask students: "What was the design inspiration for the Burj Khalifa's shape? Why does the Y-shape matter structurally?"

Teacher Checkpoint 2 — After Level 2 (2004 Foundation Phase):

Ask students: "Why was the concrete poured mostly at night? What does a 50-metre-deep foundation tell us about the challenges of this project?"

Teacher Checkpoint 3 — After Level 3 (2007 Structure Phase):

Ask students: "Why was the Safety Inspector so strict about installing nets before any other work could continue? What does this teach us about real construction sites?"

Teacher Checkpoint 4 — After Level 4 (2010 Completion):

Ask students: "The building was originally called Burj Dubai — why was it renamed? What does this tell us about the relationship between Dubai and Abu Dhabi?"

Activity 3: Post-Game Discussion (10–15 minutes — After Fortnite)

Facilitate a whole-class discussion using the following guiding questions:

1. The game doesn't allow you to move to the next level until you interact with the knowledge portals. Do you think this is a fair rule? Why might the designers have chosen this mechanic?
2. Which task in the game did you find most memorable, and what real-world engineering concept did it teach you?
3. The Burj Khalifa took 22 million man-hours and thousands of workers from around the world. What does this tell us about large-scale international construction projects?
4. If you were designing an educational game about a different landmark or building, what would you choose and why?
5. How is learning inside a game different from reading about the same topic in a textbook? What are the advantages and limitations of each?