BUILD IT Design Challenge
Underwater Hotel

Use your imagination to work through the Design Process and draft an original plan for an underwater hotel. Collaborate with a partner to brainstorm ideas and provide feedback on final designs, then translate your design into a 3D model using LEGO! Be sure to check out our Pass the Duck Activity warm-up to get familiar with the Design Process prior to starting this challenge!

Audience
- Builders of all ages, for individual or team building

Materials
- Sketching paper
- Pencil
- LEGO baseplates
- Assorted LEGO

Vocabulary
- Constraints – a limitation or restriction
- Adaptive reuse – the process of reusing existing buildings for a new purpose
- Eco-friendly – designed with the impact on the environment in mind, minimizing the impact on plants and animals in the environment.

Guiding Questions
- What is a hotel used for? How is that reflected in its design?
- What are some attractions an underwater hotel could offer that a typical hotel couldn’t?
- What are some problems an underwater hotel would face that a typical hotel wouldn’t? How could some of those problems be solved?
- What are some constraints of building underwater?
- How might an underwater hotel affect the environment it is being built around? How can you incorporate eco-friendly design elements into your hotel?

Instructions
1. Define the problem, collect information: You are tasked to design and construct an underwater hotel using LEGO. Use the guiding questions above to brainstorm and analyze ideas, and sketch an initial design for your structure.
2. Build and test a model: using your sketch as a guide, translate your ideas to a 3D model using LEGO.
3. Present your ideas to others for feedback: After you’ve finished your build, share it with the rest of your team! Share three unique things about your underwater hotel and what makes it special. Ask for feedback from your team to figure out what part of your design you could improve and keep building!

Share
We’d love to see your work! Share your creation with the Chicago Architecture Center on Facebook or Instagram using the hashtag #Chiarchitecture

Extend
Many more challenges await. Visit our website to see a list of more LEGO challenges, and be sure to share your work with us! #Chiarchitecture