Lego for Social Entrepreneurs: An Ode to the Shipping Container

Fact Sheet

- In 1955, American businessman Malcolm P. Maclean came up with the idea of shipping goods using large metal containers that could be easily transferred between and carried by ships, trucks or trains. Before that, goods were loaded in smaller boxes or stacked on wooden pallets that had to be individually loaded or unloaded at each stage of transportation. (World Shipping Council)

- 95 percent of all goods are still shipped by sea. (PortTechnology.org) Roughly 60 percent of all goods that are transported by ships every year travel in metal shipping containers—that’s about 1.7 billion metric tonnes of everything from mobile phones to fruit. (Statista)

- There are an estimated 17 million shipping containers in the world, but at any given time on about five to six million of them are in use. (PortTechnology.org)

- A standard six-metre shipping container can hold roughly 3,500 shoe boxes. (PortTechnology.org)

- Almost all shipping containers—about 97 percent—are made in China. (PortTechnology.org)

- On average, 675 shipping containers are lost at sea every year, falling off ships during storms or because of other accidents. (PortTechnology.org)

- The first known instance of a shipping container being repurposed was in 1962, when American Christopher Betjemann invented an exhibition booth made from shipping containers that companies could use to tour and showcase their products. (Containerhomeplans.org)

- The first recorded shipping container home was patented by American architect Phillip Clark in 1987. (Containerhomeplans.org)
Classroom Activity - Grade 4 to 8 Resource:

Essential Questions:
► How can reusing wasted material impact the community?

Learning Goals:
► Discover why repurposing shipping containers has become a new trend
► Explore how repurposing shipping containers can have a positive impact on the community and the environment

Discussion:
1. What is the purpose of a shipping container?
2. What are the ways that shipping containers can be transformed into usable space?
3. What are the benefits of reusing shipping containers?
4. How does reusing shipping containers impact communities and the environment?

Dive Deeper:
1. Show students the images from the article “Think Inside the Box with These Tricked-Out Shipping Container Homes,” www.digitaltrends.com/home/fifteen-amazing-shipping-container-homes, and discuss the following questions (make sure students do not see the title of the article):
   • What do you think these homes are made from?
   • Would you live in a shipping container? Why or why not?
   • Why do you think these homes were created from unused shipping containers?
   • How does this affect communities and the environment?
2. Read the Global Voices article “Lego for Social Entrepreneurs: An Ode to the Shipping Container” to students and discuss the questions from the Discussion section.
3. Show students images of empty shipping containers after they have been used to export goods. Explain to students that the life of a shipping container typically ends after a few uses. Containers are often left to rust, creating an eyesore for neighbouring communities and a pollution hazard. Empty shipping containers are not good for communities or the environment.
4. Show students the video “26 Innovative Uses of Shipping Containers,” www.youtube.com/watch?v=hzZ8Oa9a8ZA (4:19). Discuss with students how many of these solutions have been created to solve an issue in a community and create positive change.

5. On a sticky note, have students write down one way they would reuse a shipping container. Have students share their suggestions with the class and place their sticky notes on the front board.
6. After students have shared their ideas, ask them to consider what the benefits of repurposing shipping containers are and what the challenges might be. As a class, create a list of benefits and challenges. Why has repurposing shipping containers become a new trend?
7. Divide students into small groups and give each group a piece of chart paper and markers.
8. Have each group discuss ways they would transform a shipping container for a positive purpose and record their answers on the chart paper. Ask students to consider how their shipping container space could positively impact the community they live in and create a solution for an ongoing problem that they are passionate about.
9. Allow students time to research and map out these ideas, and provide them with the following questions to guide their discussion:
   • What local issue does my space assist in solving?
   • What activities can occur in this space?
   • Who will the space benefit?
   • How will I design this space?
10. Challenge students to build a model of their idea for repurposing a shipping container. Students can consider building a diorama, making a computer simulation or drawing a floor plan. Have students present their ideas for how they would repurpose the shipping container to the class.

Extension:
► Have students present their model to the school community in a gallery walk presentation. Students can describe the issue their repurposed shipping container will address and how the space will create positive change in their local community.
► Write a letter to the local council to propose how shipping containers can be reused in their community and how the space created will have a positive outcome.