

Goal: Students will use a card game to generate ideas for designs that will help someone in various disaster

Promoting collaboration and organization

- Encourage collaboration through communication with teammates and other groups
- Suggest students use drawings with labels, or physical demos to communicate their ideas more clearly
- Encourage students to think big and use their imaginations. These are extraordinary situations they are designing for!

Encouraging iteration

- “What does this part do?”
- “How does this [object] help the [user] in the [disaster]?”
- “How does the [user] hold/wear/use your invention?”
- “What can you do to adapt your invention to meet the new constraint?”

Helping those who are stuck

- “What objects fit in this category?”
- “What problems will come up in this disaster?”
- “What do we know about this user?”
- “How will this disaster affect this user?”
- “Will this user need any special adaptations to use this object?”

Real-world applications

- “Can you think of any specialized tools you would like to have around to stay safe in a natural disaster and protect your house?”
- People can get really creative when designing objects to protect people in natural disasters.
 - An inventor in China named Wang Wenxi has designed a bed that drops you and your mattress into a re-enforced box full of supplies if it senses an earthquake.
 - A company named MPowered designed the Luci light to help people affected by disasters and people living in places without electricity. It is solar-powered and inflatable.