

READY
SET
DESIGN



Smithsonian
Cooper-Hewitt, National Design Museum

Ready, Set, Design is a quick group activity.

It uses simple, inexpensive materials and is an effective tool for problem solving, creative thinking and team building. *Ready, Set, Design* is not just for designers but can be used by any audience as a way to engage in design thinking.

Objective

Participants are asked to solve an open-ended problem with time and material constraints. Working in small groups, solutions are developed quickly and yield surprising solutions that may not have been immediately obvious.

no glue, tape or scissors are allowed.
excluding these items forces participants to use materials more creatively!

Materials

- * Paper lunch bags
- * Challenge cards (can be a slip of paper or an index card)
- * Fastener items (for example, pipe cleaners, rubber bands, paper clips, string)
- * Surface items (for example, coffee filters, cardboard squares, balloons, paper)
- * Structure items (for example, straws, tongue depressors, wood skewers, tin foil)



Prep

1 Stuff one lunch bag for each team. (You'll divide your group into teams of 2-4). Each bag should contain two or three fastener items, two or three surface items, and two or three structure items.

Here's a sample bag with 3 rubber bands, 2 coffee filters and 2 straws:



you can give every team the same set of materials,
or you can give every team different materials.
both will yield interesting results!

2 Write a challenge on each card. Every team in the room can get the same challenge, or every team can get a different challenge--it's up to you.

The challenge will drive each team's conversation. It's important that the challenge is open-ended to encourage different interpretations and creative thinking.

A poorly worded challenge might read something like, "Design a water bottle." Effective wording would be, "Design a way to transport water on the go."

You can create your own challenge statements based on appropriate subjects for your group, or use one of ours:

For younger groups, under age 13:

"I need to protect myself from the rain."

"I need to bring my lunch to school."

"I need to collect and carry small things."

"I need to keep my hands warm."

"I need to carry groceries up several flights of stairs."



For older age groups, from teens to adults:

"I need to create a safe way to cook in a home with no electricity."

"I need to keep a new born baby warm in a place with no electricity."

"I need to collect and carry water."

"I need to create a safe light source for a home with no electricity."

"I need to purify water from a stream."

3 Put one challenge card in each bag. Don't worry about matching materials with challenges--remember that you want your teams to use the materials in surprising and creative ways!

With Your Group

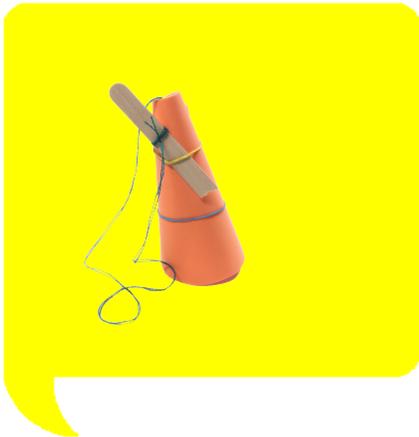
- 1 Divide the group into teams of 2, 3, or 4.
- 2 Each team gets one of the bags that you prepared earlier.
- 3 Before the teams open the bags, introduce the activity and instructions.

Here's the way we like to introduce Ready, Set, Design at Cooper-Hewitt:

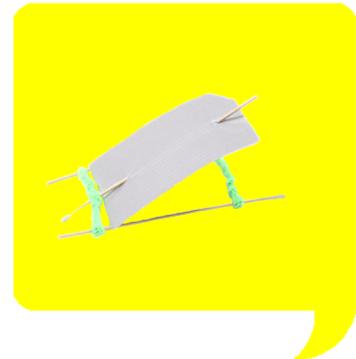
"Working in small teams, every group will receive a paper bag. In this bag you will find everyday materials and a challenge card. The first thing you're going to do is read your challenge card. Your team's job is to find a solution to that challenge using only the materials in your bag. You'll have 15 minutes to create a prototype* of your idea."

*A prototype is a small model of your final design





** remind the teams that the prototype isn't meant to be a perfectly rendered model, but a rough physical sample that demonstrates how the idea will function **



4 Give the group 15–20 minutes to **prototype** a solution using only the materials in their bag. Remind the teams that they can't design a solution that already exists!

5 When time is up, the groups present their solutions to the other teams. Ask a representative of each team to read their challenge card aloud and articulate how their solution addresses that challenge.

Want to dive into the design process a bit further?

Try introducing a brainstorming session for about 5–10min. This can give the group more time to think creatively before they start constructing their prototype.

Brainstorming guidelines to share with the group:

- * Encourage wild ideas within the group. The sky's the limit! Sometimes it's the wild idea that helps form the final concept.
- * Go for quantity. The more ideas the better.
- * Write down or draw every idea the group has.
- * One person speaks at a time.
- * Defer judgment. In addition to never striking down an idea, If the group overly praises one member for their idea, it might limit the possibility of more ideas being expressed.

*This activity is based on Inna Alesina's "Inventomania Challenge."
Inna teaches design at Maryland Institute College of Art.*

For more activities and ideas in design thinking, visit cooperhewitt.org/education

