Windy City
A Task-Based Instant Challenge
Team Copy

Challenge: Your task is to BUILD a freestanding tower that is strong enough to withstand wind power.

Time: You will have 4 minutes to begin building a freestanding tower, 1 minute to finish your tower, and 15 seconds to test its strength against wind power.

Set-up: On a table are materials for building your tower. There is a taped square on the floor where you will build the tower. There is also a fan that will blow air toward the tower.

Procedure: Coastal cities need to build structures that are sturdy enough to withstand strong winds. Using the materials provided, build a freestanding tower that can withstand wind power.

Part 1 (4 minutes):
- For the purposes of this Challenge, a FREESTANDING TOWER is a structure that stands by itself using the provided materials without being supported by other structures.
- Build your tower for both height and strength inside the taped square.
- You may not tape the structure to the floor.
- If your tower measures at least six inches by the end of Part 1, you will earn 10 points.

Part 2 (1 minute):
- You may continue to build during Part 2.
- At the end of Part 2, or earlier if you tell the Appraisers you are “Finished” or say “Time,” the Appraisers will turn on the fan for 15 seconds.
- The Appraisers will measure the height of your structure for score.

Materials:
- 50 round cards
- 1 mailing label

Scoring: Your team will receive
A. 10 points for building a tower by the end of Part 1 that stands at least 6 inches tall
B. 10 points for building a tower that doesn’t lose any of its cards after 15 seconds of wind power
C. 2 points (40 points maximum) for every inch of tower height after 15 seconds of wind power
D. Up to 20 points for creative use of materials
E. Up to 20 points for how well your team works together
Windy City
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Appraiser Copy

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- You may not tape the structure to the floor.
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**Part 2 (1 minute):**
- You may continue to build during Part 2.
- At the end of Part 2, or earlier if you tell the Appraisers you are “Finished” or say “Time,” the Appraisers will turn on the fan for 15 seconds.
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B. 10 points for building a tower that doesn’t lose any of its cards after 15 seconds of wind power
C. 2 points (40 points maximum) for every inch of tower height after 15 seconds of wind power
D. Up to 20 points for creative use of materials
E. Up to 20 points for how well your team works together
For the Appraisers only:

Set-up:

Materials:
- The round cards are made of card stock that measures 3 inches in diameter.
- Use a non-oscillating fan such as a box fan. You will need to test the fan ahead of time to determine the optimal wind strength.
- Have a yardstick handy for the Appraisers (only) to measure the tower.

Room:
1. Ahead of time, tape a 12-inch x 12-inch square on the floor.
2. Set the fan 4 feet away from the nearest side of the taped square. Mark its position with tape.
3. Set the building materials on the floor near the square.

Notes:
1. During Part 1, the tower needs to stay entirely within the taped square. The taped lines represent vertical planes that may not be crossed.
2. During Part 2, it is okay if the tower is blown outside the taped square.
3. Measure the tower at the end of Part 1, but before Part 2 begins.
4. At the end of Part 2, or earlier if the team signals its readiness, turn on the fan for 15 seconds, then measure the height of the tower.
5. To make easier:
   - Change Part 1 to 5 minutes.
   - Use standard playing cards instead of round cards.
6. To make more difficult:
   - Change Part 1 to 3 minutes.
   - Remove 10 cards.
   - Turn the fan to its highest setting, or move it closer to the taped square.
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Score Sheet

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. At the end of Part 1, the tower measures at least 6 inches tall.</td>
<td>0 or 10</td>
<td></td>
</tr>
<tr>
<td>B. The tower doesn’t lose any cards after 15 seconds of wind power.</td>
<td>0 or 10</td>
<td></td>
</tr>
<tr>
<td>C. Tower height after 15 seconds of wind power: ___ inches x 2 points</td>
<td>0-40</td>
<td></td>
</tr>
<tr>
<td>D. Creative use of materials</td>
<td>1-20</td>
<td></td>
</tr>
<tr>
<td>E. How well the team works together (see below)</td>
<td>1-20</td>
<td></td>
</tr>
</tbody>
</table>

F. Teamwork: Circle 0-4 in each of the five rows.

<table>
<thead>
<tr>
<th>Description</th>
<th>Little or no indication of teamwork</th>
<th>Low level of teamwork</th>
<th>Adequate level of teamwork</th>
<th>Good level of teamwork</th>
<th>Outstanding—exceptional level of teamwork</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared goal and purpose</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Working together and cooperating</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Support and communication</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Focus on results</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>Respect for team members and ideas</td>
<td>0</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

**Shared goal and purpose:** The extent to which the team gives evidence that they have a common goal that everyone is committed to meeting.

**Working together and cooperating:** The extent to which the team members display cooperation and collaboration, with all team members having a role and making a contribution.

**Support and communication:** The extent to which, when working on the Challenge, the team members listen to each, exchange ideas, and support or build on each others’ ideas.

**Focus on results:** The extent to which the team’s activities are relevant to their goal and help them move forward, rather than spending time and effort on unimportant or trivial tasks.

**Respect for team members and ideas:** The extent to which the team members’ social behaviors are positive and courteous, without bickering, arguing or destructive criticism.

Comments: (Use reverse side if necessary)