Two for One
A Task-Based Instant Challenge
Team Copy

Challenge: Your challenge is to BUILD a platform that will float a cup with marbles above water.

Time: You will have 1 minute to choose building materials, 7 minutes for building and testing your platform, and up to 1 minute to get your platform to float a cup with marbles for 10 seconds.

Set-up: On a table are materials for building your platform. In the center of the room is a plastic tub filled with water. There is a taped area on the floor called the Selection Zone.

Procedure: Build a platform that will float a cup with 6 marbles above water for 10 seconds.

Part 1 (1 minute):
- Your team can choose up to 10 building materials from the table and move them to the Selection Zone on the floor.
- For the purpose of this Challenge, a building material is a single item. For example, one paper clip is 1 item, and 2 paper clips are 2 items.

Part 2 (7 minutes):
- Using materials from the Selection Zone, build a platform that will float a cup with 6 marbles above water for 10 seconds in the tub.
- For the purpose of this Challenge, platform means a structure that is suspended in the water, with no part of the platform touching the bottom or sides of the tub.
- For the purpose of this Challenge, floating a cup means the platform must touch the cup and the cup must be supported over or touching the water. No more than half of the cup may be below the surface of the water. The halfway point is marked on the cup with a line.
- You may test your platform and cup with marbles during Part 2.
- If you need materials from the table that you did NOT choose during Part 1, you can trade 2 items from the Selection Zone for 1 item on the table. Put the 2 items you are returning on the table, and then you can take a new item.
- If the items being returned to the table are in pieces, collect all of the pieces and return them to the table.
- At the end of Part 2, your platform and cup must be out of the tub.

Part 3 (1 minute):
- You may make changes to your platform.
- The Timekeeper will begin timing how long your platform floats the moment a team member places the cup with 6 marbles on the platform. Step away from the tub!

Materials:
- 1 sponge
- 2 craft sticks
- 2 rubber bands
- 1 Styrofoam ball
- 2 small furniture coasters
- 1 plastic bag
- 2 chenille stems
- 2 large paper clips
- 2 index cards
- 1 balloon
- 2 nails
- 4 mailing labels that may not be attached to the ruler or marbles
- 1 plastic ruler that cannot be damaged

Scoring: Your team will receive
A. 25 points for building a platform that floats
B. 25 points for building a platform that floats a cup with 6 marbles above water for 10 seconds
C. Up to 30 points for creative use of materials
D. Up to 20 points for how well your team works together

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Two for One
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Appraiser Copy

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- For the purpose of this Challenge, floating a cup means the platform must touch the cup and the cup must be supported over or touching the water. No more than half of the cup may be below the surface of the water. The halfway point is marked on the cup with a line.
- You may test your platform and cup with marbles during Part 2.
- If you need materials from the table that you did NOT choose during Part 1, you can trade 2 items from the Selection Zone for 1 item on the table. Put the 2 items you are returning on the table, and then you can take a new item.
- If the items being returned to the table are in pieces, collect all of the pieces and return them to the table.
- At the end of Part 2, your platform and cup must be out of the tub.

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- You may make changes to your platform.
- The Timekeeper will begin timing how long your platform floats the moment a team member places the cup with 6 marbles on the platform. Step away from the tub!

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- 2 craft sticks
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For the Appraisers only:

Set-Up:

Materials:
1. Use a bathroom-sized cup (3 ounces) for the 6 marbles. Draw a line around the outside of the cup halfway from the bottom.
2. The plastic bag is a quart-size zipped closure bag, with the closure cut off.
3. The index cards should measure 4 inches by 6 inches.
4. The Styrofoam balls should be narrower in diameter than the bottom of the cup.

Room:
1. Ahead of time, place the building materials on a table.
2. On the floor, tape off a square for the Selection Zone that measures 2 feet by 2 feet.
3. The plastic tub is transparent, and the water line should be marked at 4-1/2 inches with tape on the outside.

Notes:
1. At the end of Part 1, if the team has not moved items to the Selection Zone, warn the team and give them 15 seconds to complete the task.
2. Do not provide the team with any information about the properties of the building materials until the Instant Challenge is finished and the team is debriefed.
3. Keep track of the number of materials used. You will need to keep a close eye on two-for-one trades. Make sure that items returned, if they have been used, include all the pieces of that item.
4. At the end of Part 2, remind the team to remove the platform and cup from the water if this has not already been done.
5. The team can continue to build during Part 3.
6. Once the cup with 6 marbles is placed on the platform during Part 3, the Timekeeper needs to count off seconds silently. An Appraiser should remind team members to step away from the tub, if necessary.
7. If you repeat this Challenge, use a kitchen strainer to remove any debris that may be in the water.

To make more difficult:

1. Award bonus points for using 5 or fewer items to build a platform that floats.
2. Use the following scoring rubric:
   A. 15 points for using 5 or fewer items to build a platform that floats
   B. 15 points for building a platform that floats
   C. 20 points for building a platform that floats a cup with 6 marbles above water for 10 seconds
   D. Up to 30 points for creative use of materials
   E. Up to 20 points for how well your team works together
To make more difficult another way:

1. Substitute a disposable drink coaster for the cup.
2. Award bonus points for using 5 or fewer materials to build a platform that floats.
3. For the purpose of this Challenge, floating a coaster means the platform must touch the coaster and the coaster must be supported over or touching the water.
4. There is NO TALKING during Part 1.
5. Award bonus points if you keep the coaster completely dry.
6. Use the following scoring rubric:
   A. 20 points for building a platform that floats a coaster for 10 seconds
   B. 20 points for using 5 or fewer items to build a platform that floats
   C. 15 points for keeping the drink coaster completely dry for 10 seconds
   D. Up to 25 points for creative use of materials
   E. Up to 20 points for how well your team works together
## Two for One

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### Score Sheet

<table>
<thead>
<tr>
<th>DESCRIPTION</th>
<th>POINTS</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A. The platform floats.</td>
<td>0 if not true, or 25</td>
<td></td>
</tr>
<tr>
<td>B. The platform floats a cup with 6 marbles for 10 seconds.</td>
<td>0 if not true, or 25</td>
<td></td>
</tr>
<tr>
<td>C. Creative use of materials</td>
<td>1-30</td>
<td></td>
</tr>
<tr>
<td>D. How well the team works together</td>
<td>1-20</td>
<td></td>
</tr>
</tbody>
</table>

Comments:
### Team Assessment

**Two for One**

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-Evaluators: Place a mark along the continuum for the assessments. This process will help the team see where its strengths lie, as well as areas for discussion and improvement. (Source for this page’s content: Minnesota Destination Imagination, [http://www.mndi.org](http://www.mndi.org))-

1. Did the solution match what the team was asked to do in the challenge?
   - Not complete.
   - Finished, but just barely.
   - Finished with time to spare, and time to rehearse.

2. Did the team develop a well-organized plan of action to solve the challenge?
   - Were disorganized.
   - Did not make a plan.
   - Sort of knew what they wanted to do and how.
   - Jumped right in on a plan and carried it out with flair.

3. Was the team aware of time-management issues and constraints?
   - Time flew and team didn’t realize it.
   - Was aware of the time and tried to use it well.
   - Monitored time, worked efficiently and had time to think.

4. Did team members interact and depend on each other?
   - They were individuals, wanting own way; dominators.
   - Looked to each other for ideas and support.
   - Fed off each other and multiplied the outcome; each felt great at the end.

5. Did everyone in the Instant Challenge participate?
   - A couple of strong voices; others were invisible.
   - Most participated and added to the challenge.
   - Each member played a role and was affirmed for it.

6. Did the team listen and follow directions?
   - Not completely; jumped to conclusions and wasted time.
   - Knew what they had to do; knew what was expected.
   - Follow to a “T” . . . played the game with confidence!

7. Was the solution creative/unique?
   - Predictable, obvious solution.
   - Tried to change the obvious to unusual application/outcome.
   - One-of-a-kind; out-of-the-blue; clever.

8. How creatively did the team use the materials provided?
   - Predictable and expected use of the components.
   - New twists to some common items.
   - Off-the-wall uses for items; items showed outstanding skill or knowledge of team members.

**Comments (use reverse if necessary):**

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