

## **Team Challenges**

### **A Bridge of Strength**

#### ***Materials***

- 1 sturdy cardboard box, about 38cm square. Prepare the cardboard box for the task by removing any flaps and making certain that the top of the box is entirely open.
- 1 bag of miniature marshmallows
- 1 box of toothpicks
- 1 box of paperclips

#### ***Team Instructions***

Using only the toothpicks and marshmallows, build a bridge that spans from one side of the box to another. Now that your bridge is constructed add paper clips to your bridge. You will earn 1 bonus point for each paper clip that is supported by your bridge before it collapses.

### **Build an Arch Tall Enough for a Team Member to Pass Under**

#### ***Materials***

- 1 box of spaghetti noodles
- 1 bag of miniature marshmallows

#### ***Team Instructions***

Your task is to build an arch. Your arch must be tall enough for a team member to pass under. Discuss your plan before you start to build your structure. Once your arch is complete - chose a team member to pass under the arch. You will receive ten bonus points if the selected team member is able to pass under the arch without knocking it down.

### **Build a Road**

#### ***Materials***

- 1 paper towel tube
- 5 paper clips
- 3 index cards
- 5 mailing labels
- 1 paper cup
- 5 rubber bands
- 1 sheet of paper
- 10 toothpicks
- 10 straws
- Scissors
- 1 small toy car
- A ruler to measure the distance travelled

#### ***Team Instructions***

Your task is to build a road on which a toy car can travel a long distance using the materials on the table. The road that you create must allow the car to move without any contact from team members. The car may not be pushed and must move along your road without any direct team contact. You can touch the car only as it is being placed on the road. Have a few test runs of your car on the road. Measure the longest distance travelled. You will receive one bonus point for every 2.5cm of distance travelled on your longest test run.

## **Build a Structure that Supports a Book**

### ***Materials***

- A stack of newspapers
- 1 roll of masking tape
- 1 heavy, hardback book

### ***Team Instructions***

Your task is to build a structure out of newspaper and tape that will support the book. When the structure is complete, two team members must be able to clasp hands underneath it, without touching either the structure or the book. You will receive ten bonus points for a successful solution.

## **Create a Shape**

### ***Materials***

- Rope – ends tied together to make a loop
- Index cards – variety of closed shapes drawn on each card
- Container for the index cards

### ***Set Up***

Each group member holds onto the rope. An index card is drawn out of the container. Read the team instructions out loud.

### ***Team Instructions***

Your teammate picked a card from a container. Pass the card around the circle, making certain that everyone on the team has a chance to study the shape drawn on the card. Your task is to create the shape shown on the index card with the rope, with your eyes closed! Players must not let go of the rope at any time. Teammates must come to an agreement about when the shape is complete before opening their eyes to observe.

## **Create Shapes**

### ***Materials***

- 1 x 15cm cardboard tube
- 1 sheet of paper
- 2 pipe cleaners
- 3 rubber bands
- 1 peg
- 3 toothpicks
- 2 drinking straws
- 1 paper clip
- 1 x 30cm square of aluminum foil
- 1 x 7.6cm piece of string
- 2 x miniature marshmallows
- 1 crayon
- 3 spaghetti noodles
- 1 rubber eraser

### ***Team Instructions***

Use the materials provided to create as many closed shapes as possible. Shapes are to be formed on a flat surface and must not have any visible gaps between the materials. The

rubber band may not be used as a circular shape. Team members may not speak during the construction time. Materials can be altered, but scissors are unavailable. You will receive five bonus points for each different shape you create.

### **Invent a Vehicle**

#### ***Materials***

- 4 paper cups
- 6 drinking straws
- 1 x 30cm of square cardboard
- 1 peg
- 5 mailing labels
- 10 rubber bands
- 6 toothpicks
- 8 sheets of newspaper
- 3 cardboard tubes
- 20 marbles to represent hazardous waste
- A piece of string 0.9m in length for measuring. Not used as part of the vehicle.

#### ***Team Instructions***

Your task is to develop an entirely new vehicle for transporting hazardous waste. In this task, the hazardous waste will be represented by the marbles. The first step is to plan and build your invention. The toothpicks may not be altered. Once your vehicle is built your task is to transport hazardous material (20 marbles) a minimum of 0.9 metres (use string to measure). You will earn 10 bonus points if your vehicle is able to transport the waste over the minimum distance.

### **Line Up!**

#### ***Materials***

- Index cards (marked with a letter on each card), 1 for each participant
- Blindfolds, 1 for each participant

#### ***Set Up***

The index cards have been marked with a letter. A different letter must be marked on each index card. Each member receives an index card with instructions to keep the letter secret. Now, blindfold the players. Read the instructions out loud.

#### ***Team Instructions***

You were each assigned a letter of the alphabet and were then all blindfolded. Your task is to arrange yourselves in alphabetical order without speaking. There is no time limit. When you are satisfied with your positions, you must announce that you are done. You will receive ten bonus points if you successfully complete the task.

### **Magic Carpet**

#### ***Materials***

- 30 cm square of cardboard, 1 for each team member
- 1 roll of masking tape
- 1 ruler or tape measure

#### ***Set Up***

Tape two lines on the floor, about 4.6m apart, to create a mock gorge. Assemble the team on one side of the gorge and give each participant a piece of cardboard. Be prepared to remove unattended magic carpets during the task. Read the team instructions out loud.

### ***Team Instructions***

Your team is stranded and must figure out a way to cross the deep gorge ahead of you. You each have a magic carpet that will support weight as you attempt to cross the gorge. You must not leave your magic carpet unattended, or the raven (team leader) that inhabits the gorge will swoop in and take it. You have ten minutes to traverse the gorge. You will receive twenty bonus points if you successfully move the entire team across the gorge.

### **Make Cotton Balls Fly**

#### ***Materials***

##### ***Set Up***

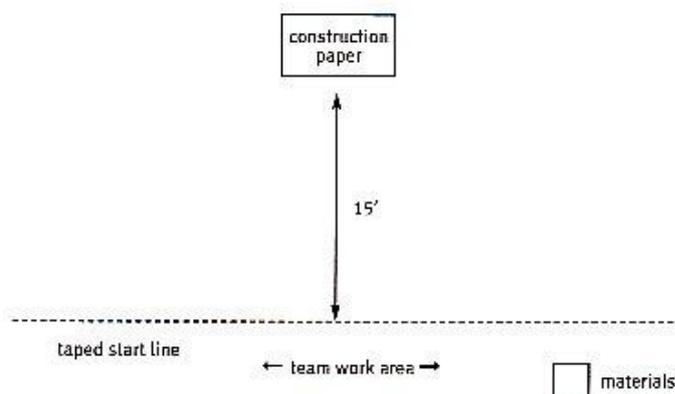
- 1 roll of masking tape
- 1 ruler
- 1 piece of coloured construction paper
- 1 box

##### ***Construction***

- 1 bag of cotton balls
- 3 rubber bands, various sizes
- 2 pegs
- 5 paper clips
- 3 paddle pop sticks
- 1 sheet of paper
- 1 index card
- 3 sheets of newspaper
- 1 sheet of sticky dots

##### ***Set Up***

Mark a line on the floor using masking tape (4.6m) away, tape a piece of coloured paper to the floor, as shown in the diagram. Place all the materials in the box and place the box near the taped line.



### ***Team Instructions***

Your task is to make cotton balls fly. You have to move as many cotton balls as possible from the start line and onto the construction paper across the room. You may use the items in the box to help you to propel the cotton balls onto the target. You may not cross the taped line at any time. You will receive one bonus for every cotton ball on the coloured construction paper.

## **Move to the Middle**

### ***Materials***

#### ***Set Up***

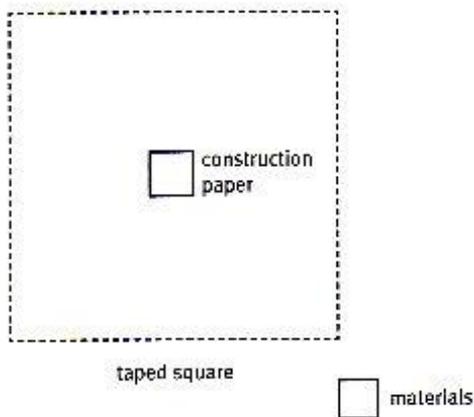
- 1 roll of masking tape
- 1 ruler
- 1 piece of coloured construction paper

#### ***Construction***

- 1 shoe box
- 1 cotton ball
- 1 section of a newspaper
- 1 paperclip
- 2 x 1.5m lengths of string
- 1 empty plastic drink bottle
- 1 ping-pong ball

#### ***Set Up***

Gather the instruction materials and place them in the shoebox. Tape a 1.5m square on the floor (or if outside peg out using tent pegs and rope) and tape a piece of coloured construction paper in the centre of the square, as shown in the diagram. Place the box of materials on the floor outside the square.



### ***Team Instructions***

For this task you have a shoebox filled with materials. Your task is to move all the materials, including the shoebox, onto the piece of construction paper you see on the floor in the middle of the square. You may not cross the taped line at any time during the completion of the task. You will receive two bonus points for every item that is touching the construction paper.

## **Outwit the Sharks**

### ***Materials***

- Index cards – numbered in sequence, one for each team member
- 1 long horizontal flat surface (plank) about 25.4 cm wide (if none is available, run two lines of masking tape, 25.4cm apart, on the floor)

#### ***Set Up***

Give a card to each team member. Ask the team members to line up in order on the plank according to the numbers on their cards. Position yourself at the end of the line, near the highest number. Read the team instructions out loud.

### ***Team Instructions***

Your group has tickets to see the shark show at marine land! You've safely crossed the bridge that spans shark bay, but now the crowds are causing a backup over the shark tank. You can't move forward until you turn in your tickets. In order to get moving, you must hand your tickets to me in numerical order, beginning with ticket number one. As team members give me the proper ticket they may step off the bridge. But be careful: anyone who falls off the bridge will become shark bait! Team members who fall may not get back on the bridge. You will receive twenty bonus points if all the team members turn in their tickets in the proper order.

### **Remove Your Shoes**

#### ***Materials***

- 1 x 61cm square cardboard box
- Styrofoam peanuts to fill the box

#### ***Set Up***

Fill the cardboard box with Styrofoam peanuts. Have up to four team members at a time lie on their backs, with their feet together in the air to form a pedestal. Balance the box on their raised feet. Read the team instructions aloud.

### ***Team Instructions***

The box on your feet is full of Styrofoam peanuts. You must remove your shoes without spilling any of the peanuts from the box. Every team member must have at least one foot on the box at all times. You will receive twenty bonus points if you succeed.

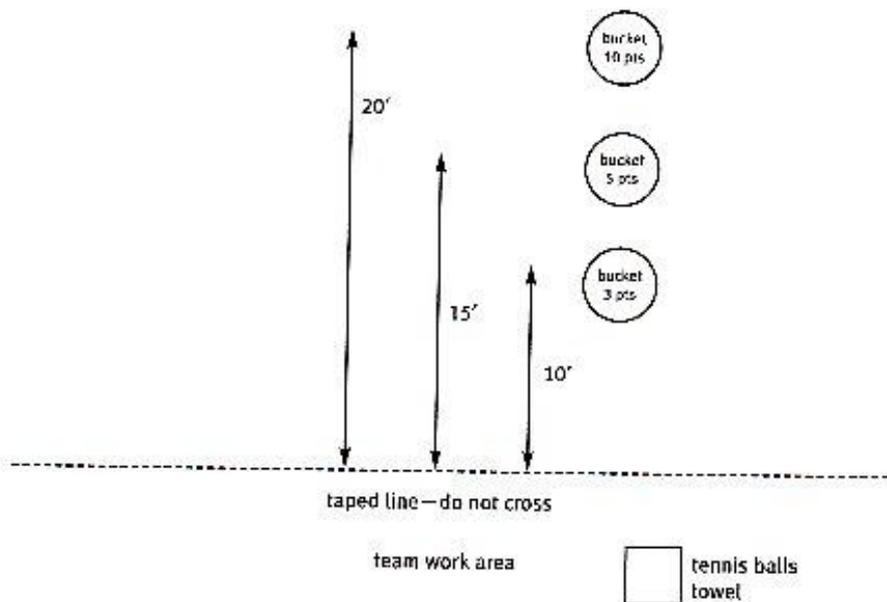
### **Throw in the Towel**

#### ***Materials***

- 1 roll of masking tape
- 1 ruler or measuring tape
- 3 buckets
- 25 tennis balls in a container
- 1 bath towel

#### ***Set Up***

Tape a start line on the floor. Place one bucket 3m from the start, another 4.6m from the line, and a third bucket 6 m from the start line, as shown in the diagram. Set the container of tennis balls near the start line. Assemble the team near the start line and give them the towel. Read the team instructions out loud.



***Team Instructions***

Your task is to move as many tennis balls as possible across the line taped on the floor and into the buckets, using only the towel to launch the balls. During this task, you may not step over the line at any time. No team member may launch two balls in a row, and launchers may not directly touch the tennis balls. You will receive three bonus points for every tennis ball in the nearest bucket, five bonus points for balls in the next bucket, and ten bonus points for the bucket farthest away.