

# Colditz Skills Challenge – July 2009

(These Instructions / Rules to be provided to each team at the start of the Skills Challenge)

## Each team must bring with them:

- 10 x 1.2 metre bamboo canes
- A square of thin cloth (cotton sheet?) no more than 1m x 1m
- Sisal / String / Cord / Twine / Thread
- Elastic bands (as many as you like!) (NOT 'bungee' or shock cord)
- Glue (optional)
- Scissors or a retractable-blade craft knife
- Six unbroken eggs (small and cheap!)
- 'Bluetack' or similar 'model egg' – **for test purposes only** (i.e. may not be used during either of the 'challenge' activities)
- Black felt-tipped marker pen

## Challenge #1

Build a device for throwing or launching an egg towards a target

### Rules

- **Only** the materials listed above may be used in the construction
- Construction must take place on site during the afternoon of the skills challenge
- All members of the team, and the device, will be required to stay behind a 'launch line' facing the 'target'.
- The egg does not have to land 'unbroken'
- The egg will have to be aimed / launched towards a target;
- The egg '*may*' be attached to one or more bamboo canes if required
- Three attempts (using three eggs) will be permitted – with the best attempt counting towards the final score
- The egg must be marked with the team number using a felt-tipped pen
- The egg cannot be thrown, but must be launched 'mechanically' i.e. the launching mechanism must be a simple 'release', or, in the case of a 'ballista'-type construction be weighted
- If a frame is constructed, it will be permissible for team members to hold it during the launching
- All members of the team will be required to remain behind the 'launch line' during the challenge.

Points will be awarded for

Accuracy	20 points
Distance	20 points
teamwork	10 points
Strength and 'novelty' of construction	10 points

The maximum points available is therefore 60

30 minutes will be allowed to complete the construction. For obvious reasons, testing will be limited (!) but teams may, if they wish, use a blue-tack (or similar material) model egg whilst testing and developing their design / construction. This material **MAY NOT** be used during the actual challenge.

## Challenge #2

Create an 'egg parachute' that will allow an egg to be dropped from a height and land 'unbroken'.

Rules:

- **Only** the materials listed above may be used in the construction (with the exception of the 'blue-tack or similar material – see below)
- Construction must take place on site during the afternoon of the skills challenge
- Only the string / cord / twine can touch the egg, i.e. no elastic bands
- The 'cradle' for the egg must hold it securely
- The cradle will need to allow a broken egg to be replaced quickly and easily.
- The design must allow the parachute to be held at, or close to, the centre of the canopy
- The centre of the canopy must be clearly marked
- The eggs and the Canopy must be marked with the team's number using a felt-tipped pen

The competition will be run as follows:

To ensure consistency and fairness, the parachute will be released by a member of the Colditz staff, who will hold it by the centre point of the canopy with the egg level with the drop height.

The first attempt will be from the lowest height; if successful the second attempt will be from the next height, and thence to the third level. Up to three attempts will be permitted depending on the number of unbroken eggs available to the team!

Points will be awarded for:

- |  |           |
|--|-----------|
| a. Construction / build quality / design             | 10 points |
| b. Teamwork (i.e. every member of the team involved) | 10 points |
| c. For a successful (unbroken egg) landing;          |           |
| From the lowest height                               | 20 points |
| From the second height                               | 20 points |
| From the highest level                               | 20 points |

The maximum points available is therefore 80

30 minutes will be allowed to complete the construction. For obvious reasons, testing will be limited (!) but teams may, if they wish, use a blue-tack (or similar material) model egg whilst testing and developing their design / construction. This material **MAY NOT** be used during the actual challenge.