PowerUp 2.0 Distance Challenge

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PowerUp 2.0 Distance Challenge

Activity developed by Redland City Council Libraries



Details

Age group	Year 3+ (ages 8+)
Method	Small group activity
Participant to facilitator ratio	10:1
Duration	1 hour 25 mins

Aim/Key Learning

Participants will have fun learning and problem solving as they design and fold paper planes to be used with the PowerUp 2.0 paper plane motor. They'll work as a team to determine the best method and material for folding the plane and then compete in a contest of flying their final designs.

Preparation and Materials Required

- PowerUp 2.0 kits
- AA Batteries
- Paper
- Tape
- Laptop and projector
- Paper plane folding instructions
- Pens and pencils
- Whiteboard and whiteboard markers (recording scores)
- Use tape to mark out score targets as below

Note: put all AA batteries into kits (This requires a screwdriver)

Activity Steps

1. Demonstration

Time: 10 min
Welcome attendees to the session. Introduce yourself and run over the housekeeping e.g. Fire evacuation, toilets etc. and quickly explain what we will be doing in the session. Show an example of a PowerUp 2.0 and what can be achieved with the paper plane kit.

- Show some examples on projector of what the PowerUp kit can do
- Attendees will break off in to groups of 4
- A group name is to be decided on to place up on the whiteboard. The groups have until the challenge to decide on a name.
- Explain how the competition and scoring will run



2. Folding and Testing Planes

Time: 40 min
Attendees are in groups of 4 and create a plane that is designed to travel a distance to gain points which are taped out on the floor. A “rough” design down has been drawn below.

- Point out to attendees that if they need some help with the folding, there are instructions on the table or up on the PowerPoint.
- Get the attendees to test their planes (without the PowerUp 2.0 kit) on the floor score target
- Pens and pencils are provided if the attendees wish to colour in their planes
- Ask any groups that haven’t decided on a name to choose one before the challenge.

3. Target Challenge

Time: 30 min

- Attendees will attach the PowerUp 2.0 to fly their planes and compete against each other to see who can gain the most points.
- Optional: the winners of the challenge receive a small prize, certificate or recognition

4. Evaluation and Closing

Time: 5 min
At the end of the session, ask for volunteers to share their learnings or how they found the session.

Thank everyone for their participation and team work.

Loanable Kits

State Library has kits of this item available for loan to libraries within the Regional Libraries Queensland and Indigenous Knowledge Centres network. Libraries can place a reservation through the Aurora catalogue (availability is subject to existing reservations, loans and associated return dates).

The kits are for use by patrons within the library only, as part of supervised library programming. They will not be listed in the public online catalogue for personal reservation.

Please contact Access Services, or phone 07 3842 9014 with any queries.

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