

Angry Birds









Self-Led Session Instructions

Use these instructions with the Scout Adventures Angry Birds kit to run a 90 minute Angry Birds session for a group of 12 people.

Basic Session Structure

This guide has a page for each of the sections below which you can use when running the session.

Session section	Approx. Timing
 Part 1 – Introduction An introduction to the session and how it works	5 Minutes
 Part 2 – Research and Development Design and Build a mini Catapult	20 Minutes
 Part 3 – Build your catapults Use the materials to put your rocket together	25 Minutes
 Part 4 – Test your Catapults See how well they fire!	10 Minutes
 Tinker Time Fix and adapt anything that needs tweaking	10 Minutes
 Part 5 – Competition Try to aim your catapult and knock over those pigs!	15 Minutes

What's in the Box?



1 Angry Bird



5 x Green Pigs (Small, Medium and Large)



4 x Bean Bags



4 x Bungee Cords



4 x Catapult Heads



3 x Small Dowels



25 x Broom handles



Lots, Small Elastic Bands



Lots, Large Elastic Bands



30 x 1.5m Strings



4 x Wooden Blocks

6 x Plastic Blocks

Please try to pack away the kit so all of the items are in their separate boxes. This makes it easier for the next group to run the activity.

Part 1 – Introduction



Time: Approximately 5 minutes.

Equipment: None

Use this page to help introduce the Angry Birds session to your group.

Before you start

- Collect the Angry Birds box ready for you session.
- Check the contents of the kit against the list at the start of this document
- Choose where to run the activity. You'll need an areas at least 10m across.

Introduce the Session

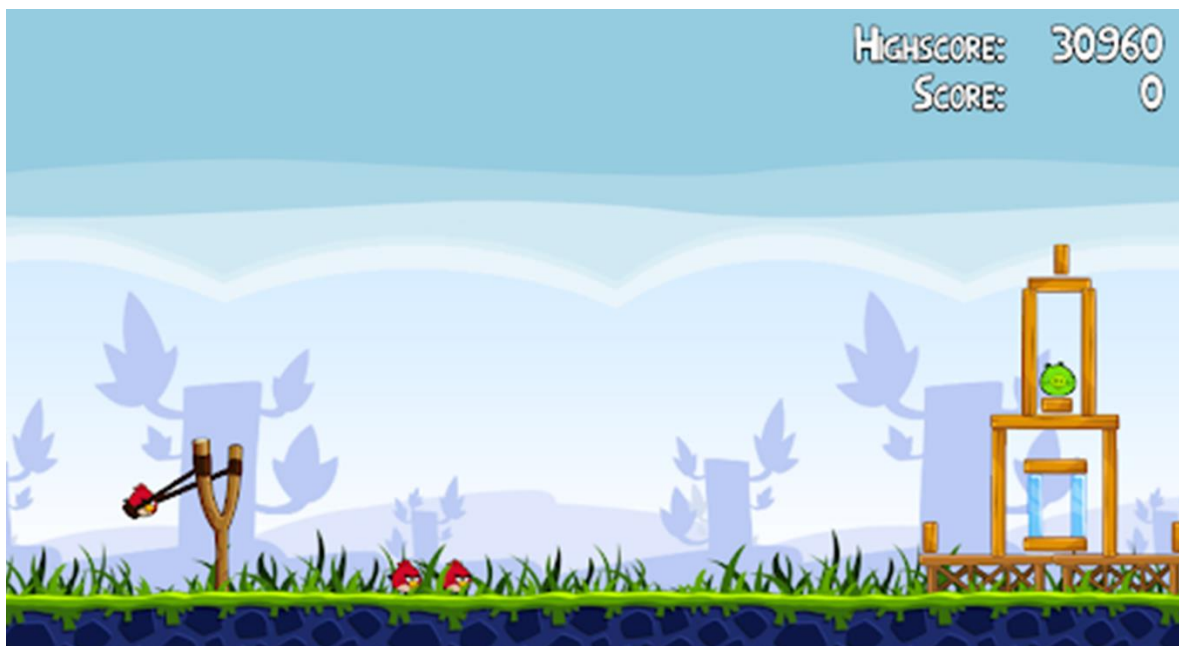
The suggested introduction for the session is:

- We're going to spend the next 90 minutes playing Angry Birds
- Working in teams we're going to design and build a catapult then use it to knock down some pigs by firing birds across the hall!
- You may need to explain what Angry Birds is!

What is Angry Birds?

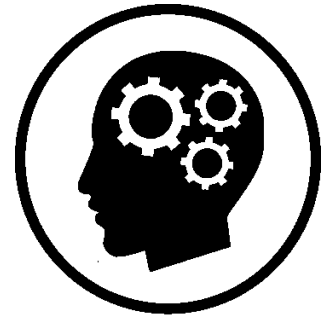
Angry Birds is a game where a bunch of Angry Birds try to defend their eggs against a bunch of Green Pigs – their enemies. The birds are flung across the screen using a catapult to attach the pigs. The pigs are generally protected by fortresses made of wood, stone etc.

In the game different birds have different skills and as the game goes on it gets harder. But we'll just be using the basic Angry bird – but there are some different pigs to try and defeat!



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Part 2 – Research and Development



Time: 20 Minutes.

Equipment: Small Dowels and Small elastic bands

In this section teams design and build mini catapults.

Explaining the task

- Split your group into teams of 4
- They have 20 minutes to design a prototype of a catapult.
- They can test different designs, then decide which one they want to build for real.
- The rocket must be designed to meet the mission objectives

Equipment



Dowels – give each team 6 to 8 dowels



Elastic Bands – give each team 6 to 8 elastic bands

Task Objectives

Your Catapult must

1. Hold together on its own without you holding it
2. Have a firing mechanism
3. Not use more than 8 wooden dowels (or however many you specify)

EXAMPLE

Show 'em what you've got!

If you have the time and skills then it can be useful to show the group some examples of the sort of thing they can build.

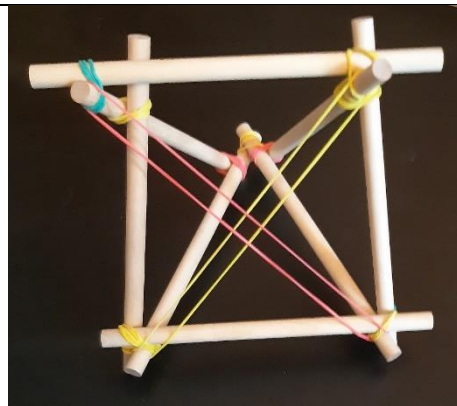
You can use the pictures on the back of this card, make something yourself, or google for "Pioneer catapult"

Example Mini Catapults



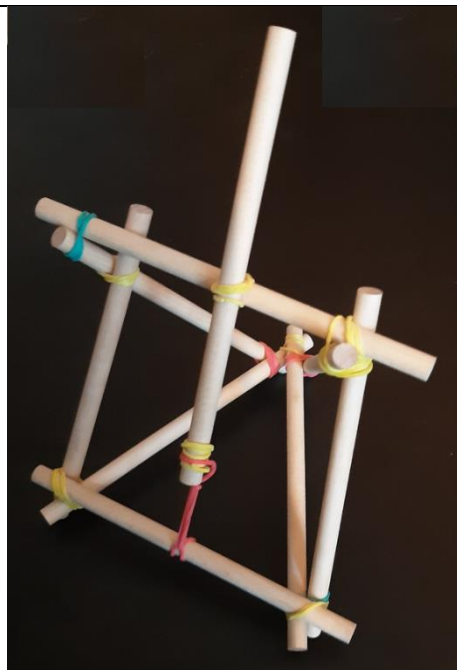
Simple Triangle Frame

- Start by making a triangle with 3 dowels.
- Add an extra dowel to the back of each corner of the triangle.
- Then join all 3 of those dowels together to make a self-supporting structure
- Use an elastic band across the face of the triangle as the firing mechanism.



Square Frame

- Start by making 2 triangles each with 3 dowels
- Join the two triangles together at the back
- Add two dowels across the front to make a square
- You can use an elastic band as the firing mechanism



Square Catapult

- Make the Square frame as above.
- Add another dowel at right angles across the middle of the top dowel.
- This is the catapult arm. You can use elastic at the bottom end to make it snap back into place and fire your projectile from the other end.

Part 3 – Build your Catapults!



Time: 25 Minutes.

Equipment: Elastic Bands, String, Broom Handles.

Teams must build a full size catapult based on their mini model.

Explaining the task

- Each team should now have an example of what their catapult will look like.
- Using full sized materials they will now construct the catapult.
- You can choose if they make them the easy way (with elastic bands) or if they must lash them together properly with string.

Connecting the broom handles

The simple way - Use the giant elastic bands to join the broom handles together

The skilful way - Use traditional Japanese lashing, finished with a bow to tie the broom handles together.

The blended way - Start by using lashings, and if they start to run out of time give them the elastic bands to finish the last few connections!



Simple Triangle frame with a bungee and catapult head fitted as a firing mechanism

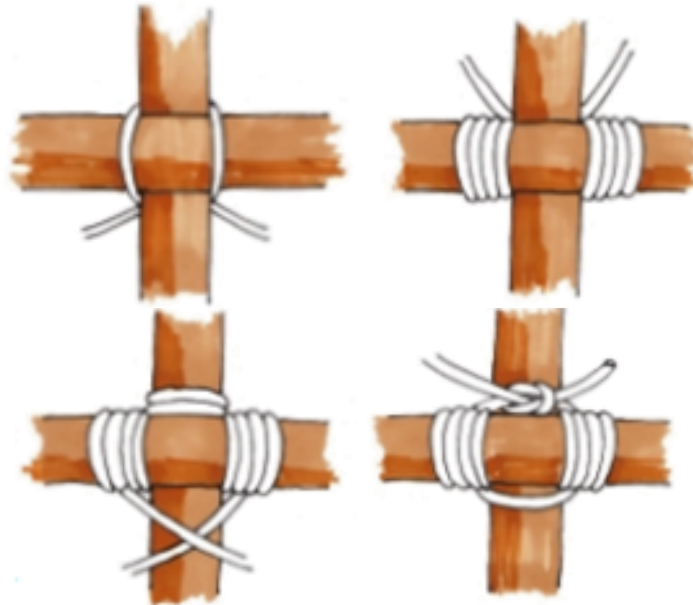


Simple connections with elastic band



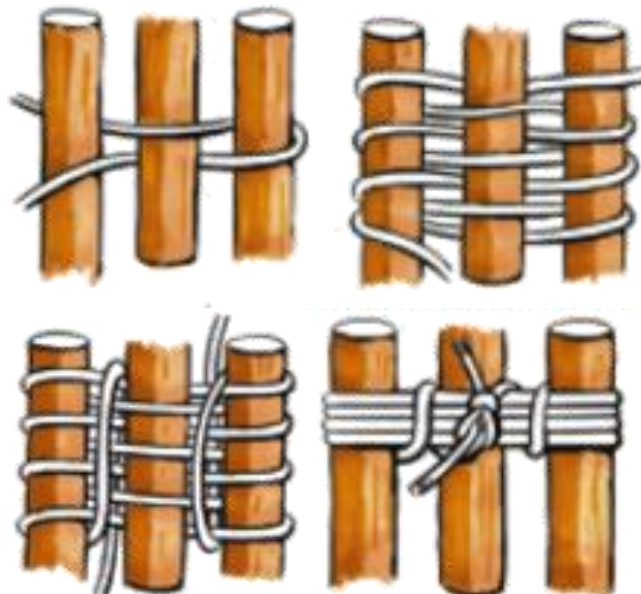
Skilful connections with Japanese Lashing

Japanese lashing



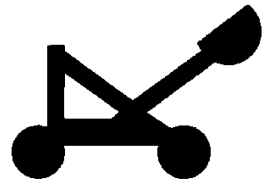
- 1 Wrap the middle of the string around one stick, then bring both ends over the other and cross around at the back
- 2 Repeat this a few times until there are 2 or 3 wraps.
- 3 Wrap the extra string between the two sticks so they pull the first set of wraps tight
- 4 Finish off by tying a Reef/Square knot, or to make it quicker to release just use a bow

Tripod Lashing



- 1 Weave the string between the sticks. Leave a 15cm centimetres of string at the start.
- 2 Continue to weave in and out a few times between each stick.
- 3 Wrap a few times between each stick to tighten the first wraps.
- 4 .Finish off by tying a Reef/Square knot, or to make it quicker to release just use a bow

Part 4 – Test your catapults



Time: 10 Minutes + 10 minute Tinkering time

Equipment: Catapults and Angry Birds

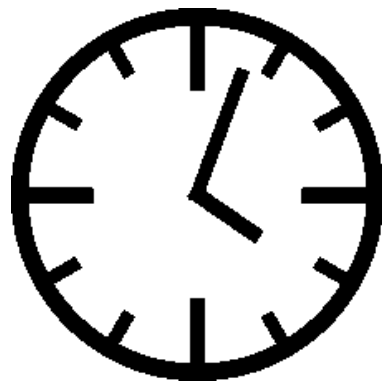
In this section teams test if their catapults will fire!

Explaining the task

- Now we'll see if our catapults actually fire!
- As an adult inspect each catapult first to look for any hazards (e.g. bungees that might come lose)



Each team gets to fire 4 bean bags to see how well their catapult works.



They then get 10 minutes to improve or adapt their catapult to make it better

Tinker Time

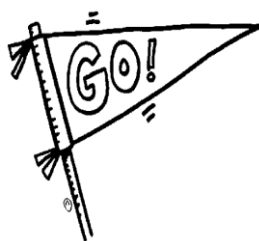
Common tasks which need fixing after test firing...



Tighten up connections



Add more power! Can you use an elastic band to add power?



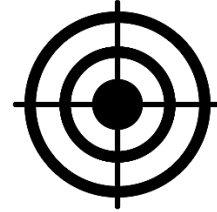
Release technique – how do you actually fire this thing?

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Part 5 – Competition Time

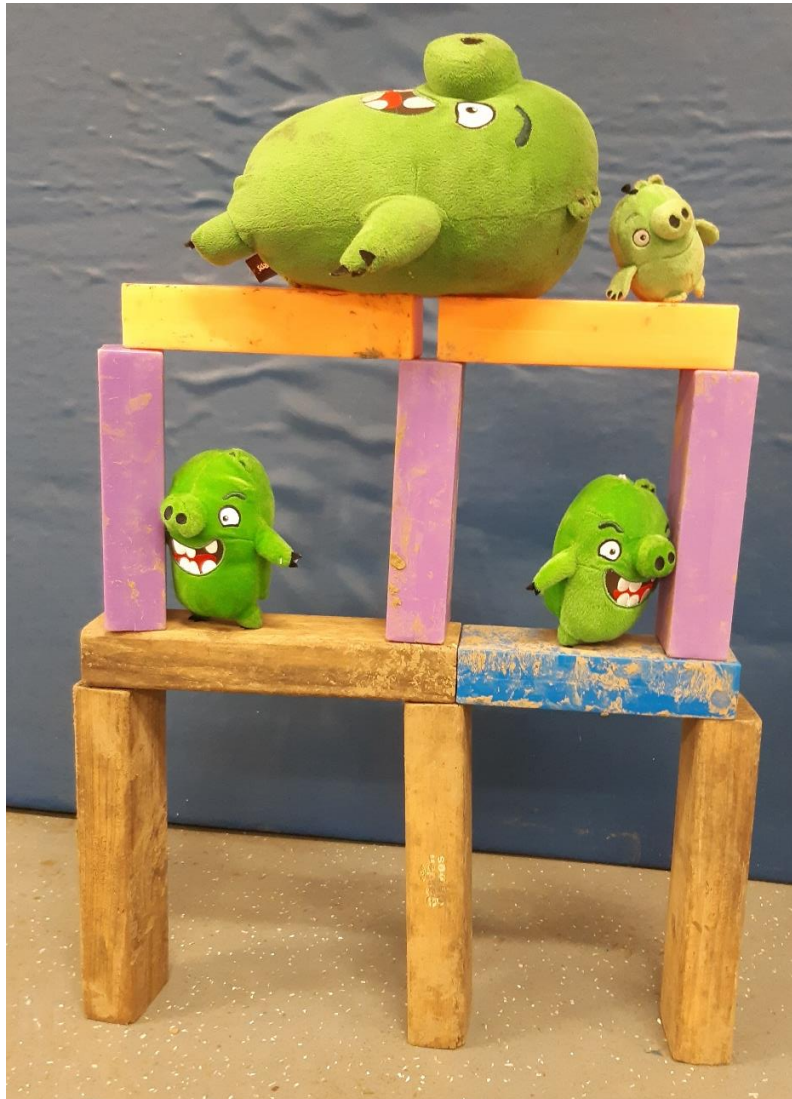
Time: 25 Minutes.

Equipment: Blocks (Plastic and Wood), Angry Birds, Pigs, Catapults.



Explaining the task

- We will now compete to knock down as many pigs as possible!
- Use the blocks and pigs to set up a fortress you can aim at.



Competition Time

- Each team gets 4 bean bags and 1 angry bird to destroy as much of the fortress as possible.
- Scores are on the back of this page.
- If they knock over all the pigs and still have turns left reset the fortress to go again.
- At the end of each teams turn reset the fortress again

Scores

Points are scored by knocking the pig to the floor. If you directly hit a pig your score is doubled!

Points are different depending on which pig you hit, and what you use to hit it with!



Angry Bird



Bean Bag



Mega Pig

50 Points

30 Points



Midi Pig

30 Points

20 Points



Mini Pig

20 Points

10 Points

Angry Birds – Risk Assessment

This risk assessment covers the significant hazards associated with instructing and supervising an angry birds session. As the supervising adult you may need to supplement this with specific knowledge of individuals in your group – for instance any health condition.

You will also need to dynamically risk assess as you supervise the activity. CLAP is a useful tool to help you supervise and provide dynamic risk assessments:

- C** Communicate – give your group clear simple instructions and check they have understood the key points of the information,
- L** Line of sight – set boundaries and rules to ensure that you can see your group when they take part in activities with medium rated hazards.
- A** Avoid – Look for existing hazards and anticipate developing hazards, then take action early to avoid these becoming a risk to your group.
- P** Positioning – Try to move to the place where you can be the most effective in managing risk. This will change throughout the activity.

Severity Factor & Remaining Risk Assessment

Please pay particular attention to the “Medium” residual risk rating - these are items you must take action over during your activity.

Level	Severity Description	Residual Risk Description
Low.	Minor Injury requiring no treatment, or simple first aid.	Control shave reduced the severity and/or likelihood of occurrence to minimal levels.
Medium.	Injury would require the participant/worker to stop continuing the activity/task; medical treatment is beyond the skills of a basic first aider.	Control measures have reduced severity and/or likelihood to an adequate level but hazard still requires dynamic risk assessment & conscious consideration.
High.	Injury would require expert medical attention and/or result in fatality.	Control measures are not sufficient to reduce the severity or likelihood to an acceptable level.

Standard Risk Assessment – Self-led Angry Birds

Hazards	Who may be harmed?	Foreseeable Severity	Control Measures in Place	Residual Risk
Injury by someone being hit by a projectile	Participants	Medium	<ul style="list-style-type: none"> o Power of projectiles is very low and unlikely to cause injury. o Participants not to fire catapults towards each other. o Supervision of adult at all times 	Medium
Injury from Bungee cord coming lose under tension	Participants	Low	<ul style="list-style-type: none"> o Bungee cord to be wrapped around and back on itself to form secure fixing o Adult to inspect each catapult before it is fired and look for obvious hazards such as lose bungees. o Use an elastic band to secure bungees if deemed necessary. 	Low
Injury from poor handling of broom sticks	Participants	Medium	<ul style="list-style-type: none"> o Adult to monitor group and ensure that broom handles are not waved around or used inappropriately. o If deemed necessary for the group then this should be given as an instruction at the point of the session when the broom handles are introduced. 	Medium
Injury or accidents associated with group behaviour and adventurous activities	Participants	Medium	<ul style="list-style-type: none"> o A ratio of 1:12 for group members to supervising adult is recommended. o Supervising adult member to give a briefing and follow the session structure to ensure participants stay engaged. o Supervising adult to complete a visual check of the area before beginning the session to identify any unexpected hazards. 	Low
Health issues including personal injury or illness	Participants	Medium	<ul style="list-style-type: none"> o Supervising adult must be aware of significant medical requirements and ensure any essential medication is accessible. 	Low
Unsupervised use of the activity	Anyone in vicinity	Medium	<ul style="list-style-type: none"> o All groups are made aware not to use activity equipment without supervision. o Equipment to be returned to staff team after use (or agreed location) 	Low

Self-led Angry Birds

Minimum requirements

If you choose not to follow the structure in this guide then you must as a minimum follow the requirements set out below.

Supervision and Leadership



Please note it's a self-led session – as the adult in charge you are responsible for the supervision of your group, including ensuring the safety of all participants. You should complete a risk assessment for your activity.

Supervision, Equipment

Please read the following guidelines for use during your session.

- Scout Adventures may curtail the session at any time if it is deemed unsafe.
- Ensure equipment is suitable for your needs, and you understand how to operate it correctly.
- Participants should be supervised in line with your risk assessments.
- Suggested group size for this activity is 12 or per your risk assessments.
- Please report any damage to the equipment at reception.

Safety Requirements

- All catapults should be checked for safety before firing.
- Don't fire projectiles towards other people
- Supervising adult must ensure general safety precautions and supervision are in place – e.g. careful moving of broom hands in inside spaces, checking bungees are not loose.
- After your session please return equipment to a member of staff.

Help and Assistance

If you have any questions about these guidelines please ask a member of staff before commencing the activity. Please contact the center's Duty Manager if you need assistance.

Visual reminder of key Controls



Inspect catapults before firing



Make sure bungee cords are secure



Don't fire towards people, be careful with sticks