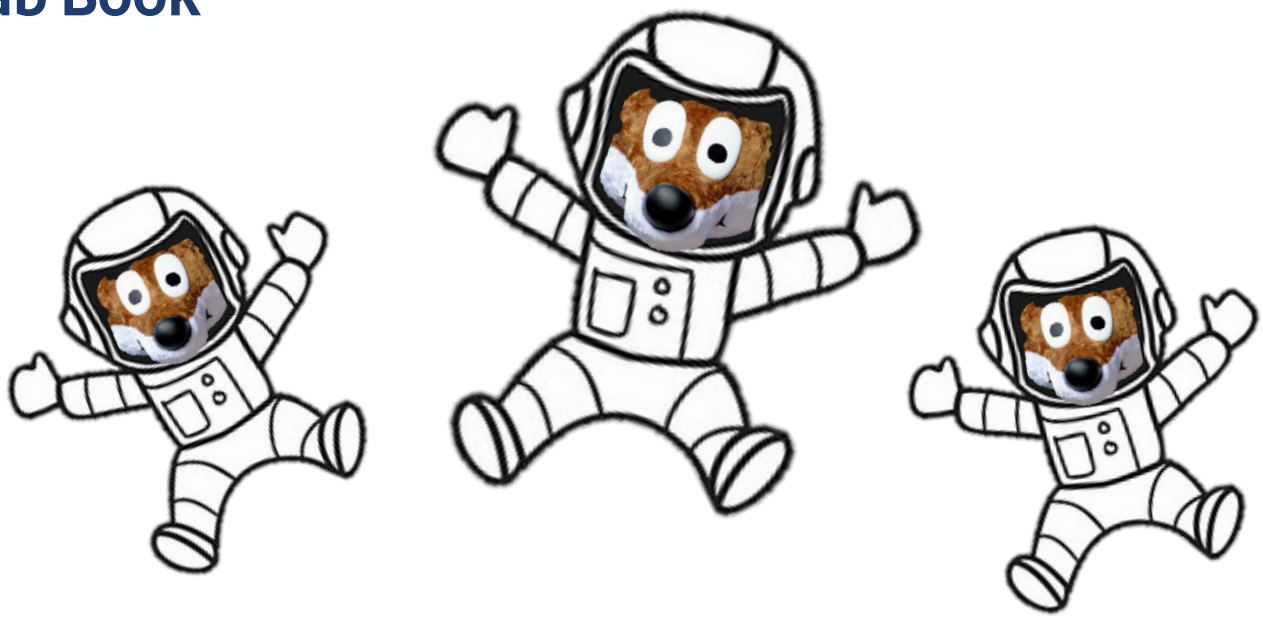
PLPS CITY SCIENCE STARS

Lab Book



Name:

School and Year:

Date that our investigation started:

Date that we completed our investigation:

FIXTURE 1 – PITCH PERFECT

Team Name:

Team members:

The question that we are investigating is...

In our investigation we are going to change...

We are going to keep these variables the same...

We have predicted that this might happen...

A drawing of how we have set up our investigation:

RESULTS

A description of each of our pots >	POT 1:	POT 2:	POT 3:
Week 1 Have any seeds germinated?			
Week 2 How about now?			
Week 3 If not, why might that be?			
Week 4			

RESULTS

	Pot 1:	Pot 2:	Pot 3:
Week 5			
Week 6			
Week 7			
Week 8			

Remember to compare growth, colour, shape, height, number of leaves and healthiness of your pots each week!

ANALYSIS AND CONCLUSIONS

What do our results tell us? What can we recommend to the LCFC Groundskeeper to help grow the pitch on Mars?

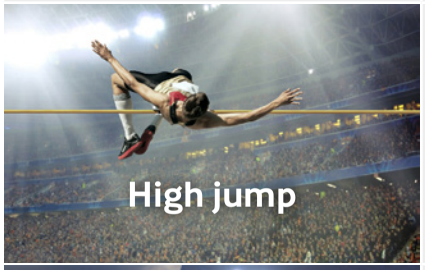
Was there anything that may have affected the fairness of our results? *(e.g. one pot got more water than others)*

If we repeated the experiment, is there anything we could do to improve our results and conclusions?

Thanks for your help!

FIXTURE 2 – SPACE OLYMPICS

My SportSuit design:

	Venus	Mars	Saturn	Neptune
				
				
				
				
				

FIXTURE 3 – BE A SPORT

Sport name:

Rules
(e.g. number of players, equipment, scoring system, end point)

If we classified your game, which other sports would it be most closely related to?

FIXTURE 4 – GET A GRIP

What we are changing ('variable'):

What we are keeping the same:

What we are measuring:

What equipment we will need:

We predict that:

Shoe/Surface	Test 1 (N)	Test 2 (N)	Test 3 (N)	Median Average

Were our predictions correct? If not, why might this be?

Our results tell us that:

FIXTURE 5 – MATCH FIT

Wobbleboard (Agility)

How many times in 1 minute did you step off the wobble board?

First attempt: _____times

Second attempt: _____ times

Cube Tower (Determination)

How tall did your tower get? _____

How many times did it fall? _____

How did you change your strategy?

Blindfold (Communication)

How long did it take to finish?

First attempt: _____s

Second attempt: _____s

How did you change your strategy?

_____

Stroop Test (Accuracy)

How long did it take you to say all of the words and colours correctly?

First attempt at words: _____s

First attempt at colours: _____s

Second attempt at words: _____s

Second attempt at colours: _____s

Ruler Drop (Reactions)

Drop the ruler and record (in cm) your 10 catching attempts below:

_____ _____ _____ _____ _____ _____ _____ _____ _____ _____

What was your slowest? _____cm What was your quickest? _____cm

Analysis & Conclusions

Quantitative Data (Numeric Information)

Activity	My result	Group minimum	Group maximum	Group range
Wobbleboard				
Stroop Test				
Cube Tower				
Goggles				
Ruler Drop				

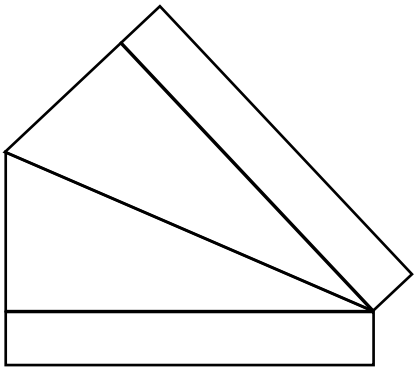
Qualitative Data (Descriptive Information)

The activity I found easiest: _____ The activity I found hardest: _____

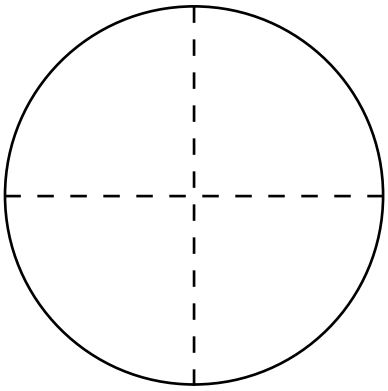
FIXTURE 6 – KICK-OFF TO LIFT-OFF

Design zone:

Component Templates



Fins



Nose-cone

FIXTURE 7 – SURVIVAL OF THE FITTEST

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Urban City	Martian Surface

Wild Cup tournament rules

- Pick one adaptation from each column, total of three adaptations on your player.
- Points awarded for adapting to random events and other players.
- Add up your scores from each round to make your total score.

ROUND 1 SCORE	ROUND 2 SCORE	ROUND 3 SCORE	TOTAL SCORE

Food Chain

Carnivore

Fast herbivore

Armoured herbivore

Environmental

Echolocation

Cooling frills

Furry body

Locomotion

Pelvic fins

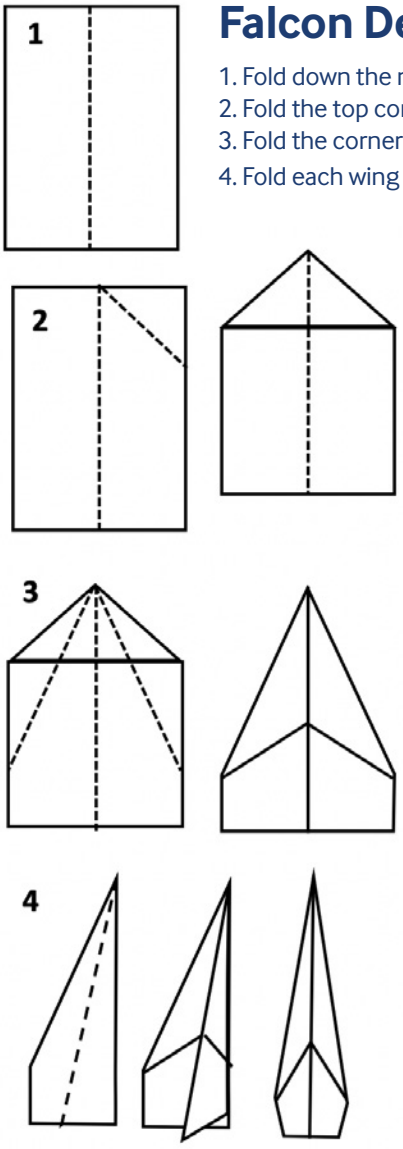
Tunnelling claws

Wings

FIXTURE 8 – ON THE WING

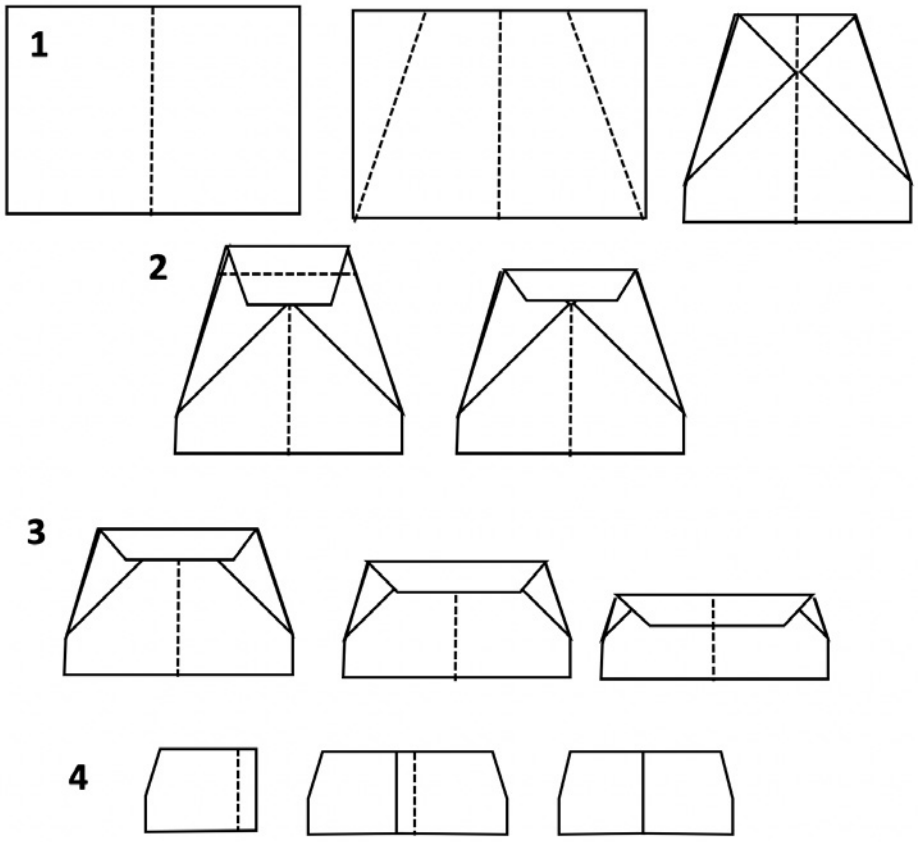
Falcon Design

1. Fold down the middle and unfold.
2. Fold the top corners to the centre.
3. Fold the corners to centre again.
4. Fold each wing in half.



Condor Design

1. Fold down the middle and unfold out again, then fold the top corners to the centre into a "cape".
2. Fold the top down as far to the point where the wings meet, and then fold that section in half.
3. Fold the top section downwards three times.
4. Fold together to the centre with the flaps on the inside, then use your finger on the joined side to measure out roughly 1cm. Then fold over your finger and repeat on other side.



Design	Air-time (s)	Distance (steps)	Speed (steps/s)

Which design was best for air-time, and which was best for speed?

FIXTURE 9 – FEEL THE PRESSURE

What we are changing ('variable'):

What we are keeping the same:

What we are measuring:

What equipment we will need:

We predict that:

Pressure of ball (psi)	Test 1 (cm)	Test 2 (cm)	Test 3 (cm)	Median Average

Were our predictions correct? If not, why might this be?

What do our results tell us about air pressure and football?


100
95
90
85
80
75
70
65
60
55
50
45
40
35
30
25
20
15
10
5
0

CITY SCIENCE STARS FEEDBACK

We'd like to know what you think about our science workshops!

Please **circle** the answer that matches how you feel about each question.

How much did you enjoy your City Science Stars lessons?	 I really didn't enjoy them	 I didn't enjoy them	 They were ok	 I liked them	 I loved them
How much did you learn from your City Science Stars lessons?	 I didn't learn anything	 I learned a little bit	 I learned some things	 I learned quite a lot	 I learned loads
How much do you enjoy school science lessons now?	 I really didn't enjoy them	 I didn't enjoy them	 They were ok	 I liked them	 I loved them
How much do you learn in your science lessons now?	 I didn't learn anything	 I learned a little bit	 I learned some things	 I learned quite a lot	 I learned loads
How much do you now know about jobs in science?	 I don't know anything	 I know a little bit	 I know some things	 I know quite a lot	 I know loads
How interested are you now in learning about jobs in science?	 I'm not interested	 I'm not sure	 I'm a little bit interested	 I'm quite interested	 I'm very interested
How much do you now enjoy learning about sport?	 I really don't like it	 I don't like it	 It's ok	 I like it	 I love it

Would you recommend the City Science Stars sessions to other children? Yes / No

Do you have any other thoughts about science? If you do, please share them below!

SESSION See below each title for a description of the session	SCORE (OUT OF 10) 1 = VERY BAD 10 = VERY GOOD	COMMENTS Is there anything you really liked or didn't like about the session?
Session 1 – PITCH PERFECT We learned how to design our own experiments and grow pitches		
Session 2 – SPACE OLYMPICS We designed sporty spacesuits and investigated sports in space!		
Session 3 – BE A SPORT We learned about classification and designed our own sports!		
Session 4 – GET A GRIP We learned about friction and measured the forces of footwear!		
Session 5 – MATCH FIT We got to analyse the skills that footballers and astronauts use!		
Session 6 – KICK-OFF TO LIFT-OFF We launched our own rockets and learned about laws of motion!		
Session 7 – SURVIVAL OF THE FITTEST We learned about evolution and adapted our own football players!		
Session 8 – ON THE WING We looked at birds to engineer and experiment with planes!		
Session 9 – FEEL THE PRESSURE We learned about pressure and investigated football bounciness		