

EVENT DETAILS

Event Name: School College visit to Monash Uni

Date & Time: Thursday 20th September, 11am-12pm and 1pm-2pm

Audience: Year 10 Students studying engineering subjects

Size of audience: 45

Lesson Split (if applicable): 2x1 hour sessions, 20-25 students per session

Other details: Photo consent required - OBTAINED.

Lesson Presentation: <insert link to file>

Organiser/Demonstrator + Contact Details:

Jane Smith	04xx xxx xxx
John Smith	04xx xxx xxx

MATERIALS REQUIRED

MATERIAL/EQUIPMENT	QUANTITY	RESPONSIBILITY
Integration Unit	1	J.Smith, J.Smith
PPE (glasses, spare hair ties, gloves)	25	J.Smith
Plastic waste variety (recyclable + non-recyclable)	50	J.Smith
Recycling "bin" + landfill "bin" (large buckets)	2	J.Smith
Prizes (bamboo gifts + large box of chocolates to share)	10 bamboo, 2 chocolate boxes	J.Smith

SET UP

1. Ensure space is tidy
2. Set up tables + chairs for welcome presentation
3. Lay out products for Activity and ensure adequate floor space
4. Turn on Integration Unit
5. Prepare PPE and plastic for demo
6. Set up preso slides

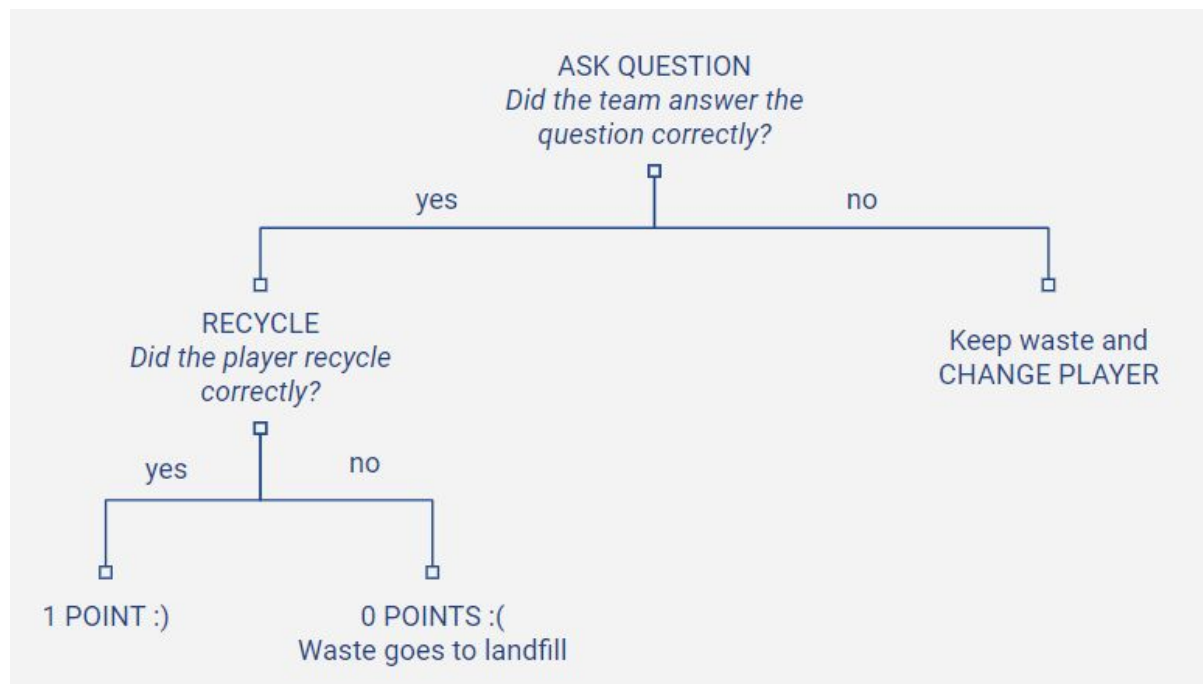
LESSON PLAN

TOPIC	DESCRIPTION	TIME ALLOCATION
Welcome/Intro	(See PPM Intro Script)	5 mins
What is Plastic?	Explain what plastic is and where it comes from.	10 mins
Activity 1 - Game	<p>Explain game - "So You Think You Know Plastic?"</p> <ul style="list-style-type: none"> - Teams of 4 students line up - Each team has a pile of plastic waste - We will ask a True/False question, if team gets answer correct, they get to put their waste in one of the recycling buckets. - If they DON'T answer correctly, keep plastic and change player. - If they recycle into the correct bucket = 1 point! - If they DON'T recycle correctly = 0 points and the waste goes to landfill :(- Game ends when a team runs out of waste. - Team with most points wins! <p>(see game flow chart below for more details) (see below for list of Questions)</p>	15 mins
Activity 2 - IU Demo	Integration Unit Demo	20 mins

	<ul style="list-style-type: none"> - Take 5 students at a time up to IU and get them to Shred and Inject (or another machine process if injector not working). - Present and talk about products with the remaining students. - 20 students @ 4 groups x 5 mins each = 20 mins 	
Wrap Up	<p>Ask everyone to sit back down.</p> <ul style="list-style-type: none"> - "Did you enjoy this session?" - "What have you learnt?" - "Any last minute questions?" <p>Hand out/share info for how to keep in touch with PPM</p> <p>Ask to fill out online feedback form.</p>	5 mins
Contingency Allowance		5 mins
TOTAL TIME 60 mins		

"SO YOU THINK YOU KNOW PLASTIC?" GAME

Basic instructions:



	Questions/Statements	T/F
1	Thermosets can be recycled	F
2	Open source is free for anyone to use	T
3	All plastics can be recycled from home	F
4	20% of all plastic produced is recycled	F
5	79% of single use plastic ends up in landfill	T
6	Between 2016-2017, Australia sent 1.2 million tonnes of recyclable waste to China	T
7	In 2018, China's stopped accepting Australia's recyclable waste	T
8	50% of all recyclables from Australia is sent to China	F
9	Some plastics come from fossil fuels	T

10	Thermoplastics have strong bonds between chains than thermosets	F
11	Thermosets melts when heated	F
12	Johnny Hakkens started the precious plastic initiative in 2013	F
13	Thermoplastics can be remelted more than once	T
14	Precious Plastic Monash started in 2018	T
15	The shredder melts the plastic in a barrel and squeezes it into a mould	F
16	The compressor melts plastic and pushes the moulds together	T
17	The Integration unit fits on a 1x1 metre pallet	T
18	The Integration unit has 6 machines on it	F
19	PVC (recycling symbol 3) releases cancer causing gases when burned	T
20	Our team is made up of students from Engineering, Design, Science and Commerce	T
21	The website to get all the info on how to recycle plastics in victoria is www.sustainability.vic.gov.au	T
22	HDPE stands for High Density Polyethylene	T
23	If a plastic product is stamped with a number in a small recycling symbol, it can be recycled in regular household recycling bins	F
24	Everything you put in your recycle bin gets recycled	F
25	All plastics eventually decompose and disappear	F
26	Less than 10% of plastic is recycled globally	T
27	Two main types of plastic are called thermomelt and Thermofix	F
28	The Precious Plastic machines are protected by Intellectual Property	F
29	The four PP machines are the shredder, injector, extruder and compressor	T

30	Plastics are made up of polymers	T
31	Thermoplastics are not recyclable	F
32	By 2050, plastics are predicted to will outweigh marine life	T
33	Dave Hakkens founded Precious plastic Monash	F
34	Polystyrene (recycling symbol 6) releases harmful fumes when melted	T
35	Plastic needs to be cleaned and dried before they can be melted	T
36	When melting plastics, you can mix all types together	F
37	When melting plastics, you can mix different coloured plastics of the same type.	T
38	Some plastics take up to centuries to decompose in landfill	T
39	Bottle lids should be taken off the bottle before putting it in the recycling bin.	T
40	Always wear personal protective equipment when processing plastics into new products.	T

References:

https://www.lifewithoutplastic.com/store/ca/common_plastics_no_1_to_no_7#pvc
<http://www.greaterdandenong.com/document/25531/household-recycling-collection-service>

Recycling in victoria;

<https://www.sustainability.vic.gov.au/You-and-Your-Home/Waste-and-recycling/Recycling/What-you-can-and-cant-recycle>

Plastic recycling codes;

<https://chemistryaustralia.org.au/Library/PageContentVersionAttachment/c5dd1bc7-0a5a-4ef0-b81b-e703664b3c9c/pic.pdf>