Where will our rubbish go?

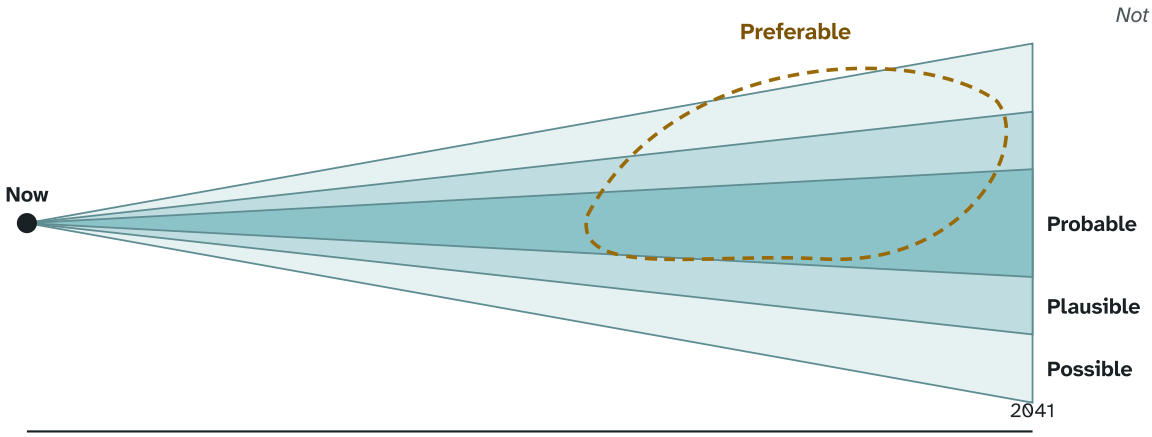
Futures planner

Name: _____ Class: _____ Date: _____

Use this planner as you work through the lesson, or on its own with the sources your teacher gives you. Each part has the number of its screen. Keep it, because the last page is the frame for your scenario and plan.

SCREEN 1 TO 10 **The futures cone** Where we are

Each screen gives you a card. Write the card's number in the part of the cone where you think it belongs, and draw a star next to it if you would want that future. Then fill in the table.



NO.	CARD	ON THE CONE	WANT IT?	WHY I PUT IT THERE
1	In 2041, Sydney's red-bin rubbish still goes by train to the Woodlawn bioreactor.	P · Pl · Po · N	Yes · No	
2	In 2041, NSW councils weigh every waste decision on all four pillars, cultural sustainability included.	P · Pl · Po · N	Yes · No	
3	In 2041, Aboriginal knowledge of Country is part of how NSW manages its food and waste.	P · Pl · Po · N	Yes · No	
4	In 2041, the average NSW red bin holds half as much food as it does now.	P · Pl · Po · N	Yes · No	
5	In 2041, soft plastics from NSW homes are recycled into new packaging.	P · Pl · Po · N	Yes · No	
6	In 2041, most products sold in NSW are designed to be repaired, reused or recycled.	P · Pl · Po · N	Yes · No	
7	In 2041, none of Sydney's household rubbish goes into a landfill of any kind.	P · Pl · Po · N	Yes · No	
8	In 2041, there is half as much plastic litter in NSW waterways as there was in 2025.	P · Pl · Po · N	Yes · No	
9	NSW reaches its target of recovering 80% of all its waste by 2030.	P · Pl · Po · N	Yes · No	
10	**My own statement about 2041 (screen 10):**	P · Pl · Po · N	Yes · No	

P probable · Pl plausible · Po possible · N not possible. Circle one in each row.

SCREEN 1 Where the bins go

Where we are

Choose each bin in the model and follow it to the end of its journey.

BIN	WHERE IT GOES FIRST	WHERE IT ENDS UP
Red bin		
Yellow bin		
Green bin		
Drink containers		
Problem wastes		

SCREEN 2 What holds it up?

Where we are

Rate each option from 0 (missing) to 4 (very strong) on each pillar, then name its weakest pillar.

OPTION	ENVIRON-MENTAL	SOCIAL	ECONOMIC	CULTURAL	WEAKEST PILLAR
Open a new landfill cell on farmland near town					
Send the town's rubbish by road and rail to a bioreactor					
Add FOGO bins and build a local composting site					
Collect soft plastics and store them until a buyer is found					
Promote Return and Earn and add a return point in town					

SCREEN 3 The fish traps at Brewarrina

Where we are

What did the Brewarrina fish traps and the native grain projects show about managing food on Country?

SCREEN 4 Tip out a red bin

Where we are

Record your sort from the model, or from a real bin audit, and copy the NSW audit figures from the table on screen 4.

PART OF THE RED BIN	MY BIN (KG)	MY BIN (%)	NSW AUDIT (%)
Food and garden waste (FOGO bin)			
Recycling (yellow bin)			
Problem wastes (Community Recycling Centre)			
Stays in the red bin			

SCREEN 5 Inside a materials recovery facility

Where we are

Set the contamination in the model, let the belt run, and record what happens to the paper bale.

CONTAMINATION	PAPER BALE CLEAN (%)	WHAT HAPPENED TO THE BALES
0%		
10%		
20%		
30%		

Why does the paper bale get dirtier as contamination rises?

SCREEN 5 Is it worth making?

Where we are

Write yes, partly or no for each question, then give your verdict. Compare it with ours on screen 5.

MATERIAL	MADE CLEANLY AND RELIABLY?	SOMEONE TO USE OR BUY IT?	BETTER THAN LANDFILL?	SAFE TO USE?	MY VERDICT
Glass sand					
Compost from FOGO bins					
Soil product from red-bin rubbish					
New products from soft plastics					
New bottles from Return and Earn					

Which of the five would you put in a council plan, and what is the strongest evidence for it?

SCREEN 6 Round and round, or straight to landfill?

Where we could go

Start the model from each of the three starting points, then try settings of your own.

START FROM	LASTS (YEARS)	REUSED (%)	RECYCLED (%)	NEW PRODUCTS	NEW RAW MATERIAL	TO LANDFILL
A linear economy						
Drink containers in Return and Earn						
Repair, reuse and recycle						
My own settings						

Which change cut the flow to landfill the most, and where does it come in the waste hierarchy?

SCREEN 7 Fifty years in two landfills

Where we could go

Move the time slider and record the figures for both landfills.

AFTER	BROKEN DOWN: TRADITIONAL	BROKEN DOWN: BIOREACTOR	CAPTURED: TRADITIONAL	CAPTURED: BIOREACTOR	ESCAPED: TRADITIONAL	ESCAPED: BIOREACTOR
5 years						
20 years						
50 years						

Captured and escaped methane in million m^3.

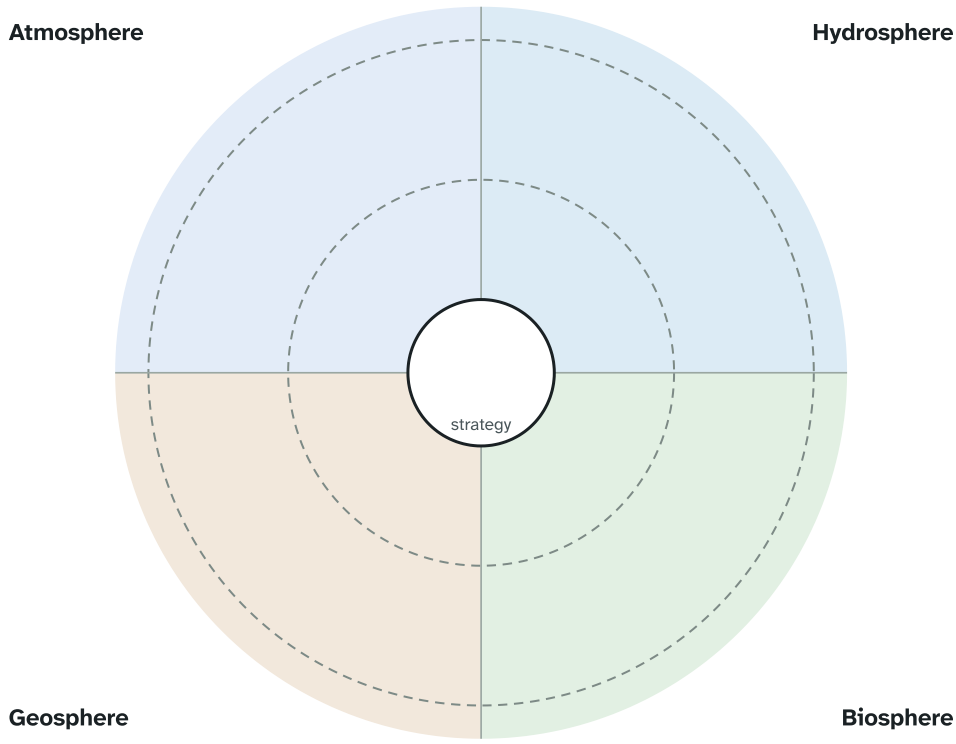
Which is better for a city like Sydney, and would your answer change for a small regional town?

SCREEN 8 A futures wheel

Where we could go

Strategy: _____

Write a strategy in the middle and its consequences around it: first consequences in the inner ring, and the consequences of those in the outer ring. Then fill in the table.



NO.	CONSEQUENCE	FIRST OR SECOND	SPHERE	HELPS OR HARMS	EVIDENCE OR PREDICTION?
1					
2					
3					
4					
5					
6					

SCREEN 9 A council's rubbish to 2041

How we get there

Record the settings that got the council closest to the 2030 targets, and the results they gave.

FOGO bins start in: _____

Food and garden waste put in the FOGO bin: _____

Recycling moved to the yellow bin: _____

Waste avoided by 2030: _____

Recovery in 2030: _____

Food and garden waste in the red bin, 2030: _____

SCREEN 9

Working back from 2041

How we get there

Start with your preferable future in the 2041 box, then work back. Write each step in the box for the year by which it has to be true.

BY 2026	BY 2028	BY 2030	BY 2041

SCREEN 10

Your scenario and plan

How we get there

Write your 2041 scenario for the council's rubbish. Say what goes in each bin, where it goes, and what happens to the residual waste.

Write your backcast plan: the strategies, in order, with the year each starts and why it has to start then.

Evaluate your plan on the four pillars and the four spheres. Which part of it is supported by the strongest evidence, and which part is the most uncertain?

Which of your cone cards changed most during the lesson, and what changed your mind?