Appendix 8 *Marvellous micro-organisms* equipment list

EQUIPMENT ITEM	QUANTITIES	LESSON	1	1	1	2	3	4	5	6	6	7	8
	GOANTILO	SESSION	1	2	3					1	2		
Equipment and materials													
balloons	3 per team						•						
balloons	4 per team					•							
boxes or bags, opaque	for the class										٠		
bread materials													
– bread mix packet	2 per class							•					
– bread or fruit	2 slices per team										•		
– bread, different varieties	3 per class, including 1 yeast-free variety (eg, chapatti, tortilla, roti, lavash)		•										
- bread-making machines	2 per class							•					
- ingredients list from each bread wrapper	1 copy per team		•										
– mouldy bread or fruit in 2 clear, sealed plastic bags	1 sample per team									•			
funnel	1 per class					•							
funnel	1 per team					•	•						
jug	1 per class					•	•	•					
kettle	1 per class					•	•						
magnifying glass	1 per team		•							•			
measures													
– ½ cup measure	3 per class					•	•						
– ½ cup measure	1 per team						•						
– ½ tsp measure	3 per class					•	•						
– ½ tsp measure	1 per team						•						

EQUIPMENT ITEM	QUANTITIES	LESSON	1	1	1	2	3	4	5	6	6	7	8
	QUANTILO	SESSION	1	2	3					1	2		
Equipment and materials (continued)													
– ¼ cup measure	3 per class					•	•						
– ¼ cup measure	1 per team						•						
paper, A3	1 sheet per team								•				
paper towel	1 sheet per student		•										
pens													
- highlighter or coloured pen	1 per student									•			
– marking pen	1 per team					•	•				•		
plastic bags													
- clear resealable plastic bags	4 per team										•		
- plastic or paper bag, large	1 per class										•		
plastic bottles (350–400 ml) with caps, all the same size	3 per team						•						
plastic bottles (350–400 ml), all the same size	4 per team					•							
plastic spray-gun bottle filled with water	1 per class										•		
plate or shallow container to hold bread samples	1 per team		•										
poster (A3) or overhead projection of lists of bread ingredients optional	1 per class		•										
safety zone	for the class					•	•						
sugar	3 x ¼ cup measures per team					•	•						
self-adhesive tape	several strips per team					•	•				•		
thermometer	1 per class					•	•				•		
timer	1 per class					•	•	•					
tongs	1 per team		•										
water													
- water	for the class					•							
– water, cold	½ cup measure per team						•						

EQUIPMENT ITEM	QUANTITIES	LESSON	1	1	1	2	3	4	5	6	6	7	8
	QUANTILO	SESSION	1	2	3					1	2		
Equipment and materials (continued)													
- water, hot > 50°C	1/2 cup measure per team						•						
– water, warm	for bread-making demonstration							•					
– water, warm at 37°C	3 x ½ cup measures per team					•							
– water, warm at 37°C	1/2 cup measure per team						•						
yeast													
– active dry yeast	for bread-making demonstration							•					
- active dry yeast	1 x 7 g sachet per team						•						
- rapid rise active dry yeast	3 x ½ tsp measures per team					•							
Resource sheets													
'Observation record: Exploring bread' (RS1)	1 per student		•										
'Observation record: Exploring bread' (RS1), enlarged	1 per class		•										
'Anton van Leeuwenhoek: Microscope maker' (RS2)	1 per student				•								
'What happens when yeast is mixed with sugar and water?' (RS3)	1 per student					•							
'What happens when yeast is mixed with sugar and water?' (RS3), enlarged	1 per class					•							
'What's the best temperature for yeast to be active?' (RS4)	1 per team						•						
'What's the best temperature for yeast to be active?' (RS4), enlarged	1 per class						•						
- 'Moulds' (RS5), enlarged	1 per class									•			
- 'Moulds' (RS5)	1 per student									•			
- 'Mould growth investigation planner' (RS6)	1 per student										•	•	٠
- 'Penicillin-the miracle mould' (RS7)	1 per team											•	

EQUIPMENT ITEM	QUANTITIES	LESSON	1	1	1	2	3	4	5	6	6	7	8
	QUARTITIES	SESSION	1	2	3					1	2		
Teaching tools													
class science journal	1 per class		•	•	•	•	•	•	•	•	٠	•	•
role wristbands or badges for Director, Manager and Speaker	1 set per team		•			•	•		•	•	•	•	•
team roles chart	1 per class		•			•	•		•	•	٠	•	•
team skills chart	1 per class		•			•	•		•	•	•	•	•
student science journal	1 per student		•	•	•	•	•	•	•	•	٠	•	•
TWLH chart	1 per class		•	•	•	•	•	•	•	•	٠	•	•
word wall	1 per class		•	•	•	•	•	•	•	•	٠	•	•
Multimedia													
binocular microscope or video camera microscope connected to TV/computer optional	1 per class									•			
computer/s with internet access optional												•	
digital camera optional	1 per class					•	•	•					
overhead projector optional	1 per class									•			