

**Supplemental File S2.** Equipment needed for the Oral Microflora activity

Module Week	Oral Microflora activities			Needed at benchtop
	Topic	Equipment needed	Preparation needed	
<b>1</b>	Introduction to microbes	LB plates Sharpies 4 sterile swabs Sterile drapes Gloves Incubator (37C)	Autoclaved LB plates Set out equipment	2 plates per student 1 per 4 1 set per student 1 per pair As needed
<b>2</b>	What do microbes need to grow?	Incubated plates Microscope slides Cover slips Gloves Sterile drapes Colony worksheet Sterile water Pipettors Pipet tips	Incubate plates Prepare equipment as needed      (10, 100, 1000 microliter)	Find their plates 1 box per bench 1 box per bench As needed 1 per pair 1 per student 10 mls per group 1 set per group 1 set per group of 4
<b>3</b>	Introduction to genomics	10% Chelex solution Pipettors Pipette tips for above Sterile water 1.2 ml microfuge tubes Sterile toothpicks Microfuge tube rack Gloves Eye protection Ice bucket Heat block Glass beaker Floaties Sharpies 15 ml conical tubes Paper cups Bottle for waste Autoclave tape Autoclave bags Microcentrifuge	Prepare in sterile water (10, 100, 1000 microliter)  15 ml aliquots Autoclaved ahead Autoclaved     Or boiling water bath Or boiling water bath   Sterile	Two tubes per 24 1 set per 4 students 1 set per 4 students 1 per group of 4 3 per student 3 per student 1 rack per 2 or 4 As needed As needed 1 per group of 2 or 4 2 heat plates total 2 beakers needed 2 needed  1 per group of 4 1 per group of 2 or 4 4 1 needed As needed As needed 1-3 needed
<b>4</b>	DNA replication, PCR, bacterial sequencing	DNA from before Microfuge tubes PCR tubes Sterile water	Autoclaved Autoclaved 15 ml aliquots	DNA from before 1 per student 3 per student 1 per group of 4

		Pipettor (p200, P20)	20, 200 microliter	1 set per group of 4
		Pipet tips	Autoclaved	1 set per group of 4
		Ice bucket		1 per group of 4
		PCR master mix	We used Promega mix	2 tubes total,
		Primer mix	Premix primers	central
		Gloves		2 tubes total,
		Microfuge tube rack		central
		Ultrafine point sharpie		As needed
		Thermal cycler		1 per group of 2
				1 per group of 2
				1 or 2
<b>5</b>	Molecular tools and techniques	Agarose	Prepare 1% agarose gel	Depends on number of samples
		TBE		1 gel per 4-5 students
		Erlenmyer flask		
		ddH2O		
		Gel box		
		Casting stand		
		Power supply		Depends on number of samples
		PCR Clean-up tips	We used tips from Midwest Scientific	
				1-3 tips per student
<b>6</b>	DNA sequencing and metagenomics	PCR primers	Forward OR reverse only	2-4 tubes per lab
		Pipettor	10 microliter	1 set per group
		Pipet tips	10 microliter	1 set per group
		Sterile Water	15 ml aliquot	1 tube per group of 4
		PCR tubes		4
		Microfuge tube rack		2 per student
		Ice bucket		
		96 well plate	Specifications depend on your sequencing facility	
		Plate sealing tape		Transfer from tubes to plate done by TAs or instructor
<b>7</b>	Analyzing sequence data	Computer-based	Trim data yourself or have students analyze raw data, depending on your course goals	1 sequence per student, or allow access to all, depending on course goals