Please give feedback on the labs and activities we did this year. (part 1)

Q1 **Who are you?**

0	*Geoffrey Bi*
1	*Allison Boyd*
1	*Anna Brosowsky*
1	*Sean Chin*
1	*Jazzmine Duke*
1	*Hasani Grayson*
1	*Hannah Herbert*
0	*Savannah Hudson*
0	*Catherine Perez*
1	*Marielle Reyes*
1	*Tim Tong*
0	*Ai Tran*
0	*Jonathan Wong*
0	*Laura Wong*
1	*Shirley Wong*

Q2 **Did you take AP biology this year?**

3	*Yes*
6	*No*

Q3 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Beano lab where you were asked to figure out what got the strip to change color.	5	2	0	1	1
Making Cheese lab	8	1	0	0	0
Making soda lab	5	1	2	0	1
	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Serial dilution with beads	5	1	3	0	0
Serial dilution with chemical (Copper (II) sulfate)	6	0	1	2	0
Spectrophotography	5	0	1	1	2

Q4 **Please write in details about why this lab or activity should be kept, tossed, or revised. Also include suggestions for revisions.**

8

Q5 **Please give a preliminary evaluation of the following labs, activities, or lessons.**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
pH lab- how to use the handheld pH meters	7	0	1	1	0
pH lab- how to use the expensive real lab meter	3	0	1	4	0
pH lab- how to use test strips/ pH paper	8	0	1	0	0
	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
buffer part of pH lab- what does it look like when a buffer is exhausted	4	0	1	4	0
Lesson on logarithyms- how the power of 10 relates to pH	6	0	3	0	0

Q6 **Please write in details about why pH labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

6

Q7 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Plant tissue culture- video to show culturing	4	1	2	2	0
Plant tissue culture- setting up the media in baby food jars	7	0	2	0	0
Plant tissue culture- cutting up leaves and putting them in jars	7	0	2	0	0
	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Plant tissue culture- putting shoots in new jars	5	1	1	1	1
Trying to see what would happen with putting a leaf in water	5	1	1	2	0
Plant tissue culture in general	5	0	4	0	0

Q8 **Please write in details about why plant tissue culture labs or activities should be kept, tossed, or revised. Also include suggestions for revisions.**

6

Q9 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Micropipetting- taking apart a micropipettor and drawing its insides	6	3	0	0	0
Micropipetting- practicing various volumes	8	0	1	0	0
Micropipetting- making tip sets	5	2	0	2	0
Micropipetting- making tube sets	5	1	0	3	0
Micropipetting worksheet- how to read the numbers written on paper	9	0	0	0	0

Q10 **Please write in details about why micropipetting labs or activities should be kept, tossed, or revised. Also include suggestions for revisions.**

7

Q11 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Chromatography- on TLC plates	7	0	1	1	0
Chromatography- on filter paper	7	1	1	0	0
Gel electrophoresis of dyes	7	0	0	1	0
Size exclusion chromatography through a column	5	1	0	2	1

Q12 **Please write in details about why chromatography or dye electrophoresis labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

7

Q13 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Quick and dirty DNA extraction from strawberries	8	1	0	0	0
Making drawings to show how a DNA extraction gets through cell walls (carbohydrates), membranes (mostly lipids), and eventually allows the DNA to be available.	4	2	1	1	1
Relating DNA extractions to biological molecules we want to keep or toss	4	1	3	1	0
Elaborate DNA extraction with plants- using micropipettors and other real science equipment.	7	0	1	1	0
DNA extraction from humans- the spit and spin method.	7	0	2	0	0

Q14 **Please write in details about why DNA extraction labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

7

Q15 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Lab practical at the end of semester 1	4	0	3	2	0
PCR in general	9	0	0	0	0
Alu PCR	8	0	0	0	1
	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Relating Alu PCR results to Hardy-Weinberg math	7	0	2	0	0
Accessing the allele server online to find out allele frequencies across the world	7	0	1	0	1
Looking at allele frequencies around the world before making a hypothesis about your own genotype	7	0	0	0	2

Q16 **Please write in details about why lab practicals, Alu labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

7

Q17 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
GMO topic in general	9	0	0	0	0
GMO lab- not choosing your lab partners	5	0	0	3	1
GMO lab- having to make your own procedure	6	2	1	0	0
GMO lab- having to do the lab without Ms Getz's continuous help	7	0	1	0	1
GMO lab- figuring out the PCR reaction controls	5	0	2	2	0
	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
GMO lab- figuring out what the information means in the gel	8	0	1	0	0
GMO lab- having to present your findings to the class	6	0	2	1	0
GMO lab- writing up a lab report explaining your findings	7	0	1	0	1
GMO lab- having to understand the mechanics of using primers that look at different sites.	5	0	1	3	0

Q18 **Please write in details about why GMO labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

6

Q19 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
The GMO website in general	8	0	1	0	0
The requirement for the GMO website: pro/con opinions	7	0	1	1	0
The requirement for the GMO website: your own opinion	6	2	1	0	0
The requirement for the GMO website:information about the country and why it would need to do GMO farming	8	1	0	0	0
The requirement for the GMO website: how biological molecules are changed with the GMO	5	1	1	0	2

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
The requirement for the GMO website:including pictures found online	8	0	0	0	1
The requirement for the GMO website:linking to another page	8	1	0	0	0
The requirement for the GMO website: having more than one page	7	1	0	0	1
The requirement for the GMO website: external links page in general	8	1	0	0	0
The requirement for the GMO website: writing a 2-3 sentence description for each external link	5	4	0	0	0

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
The requirement for the GMO website: what makes the GMO crop GMO	8	0	0	1	0
The requirement for the GMO website:information about the company making the GMO seed	7	1	0	1	0
Evaluating your own website.	7	2	0	0	0
Evaluating 2 other websites.	6	2	1	0	0
Adding a page to your GMO website that explained your GMO lab results.	6	1	0	0	2

Q20 **Please write in details about why parts of the GMO website and related activities should be kept, tossed, or revised. Also include suggestions for revisions.**

8

Q21 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
mtDNA PCR (you may not realize yet why you did this lab)	6	0	0	3	0
d1s80 PCR	7	0	0	2	0
How VNTR math is different than plus/minus math (many alleles vs 2 alleles for a specific spot on a chromosome)	6	0	0	2	1
Doing math problems when there are more than 2 possible alleles	6	0	1	1	1

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Measuring distance migrated off a photo.	7	1	0	0	0
Using Excel to graph data.	8	1	0	0	0
Using Excel to do a linear regression. (line of best fit)	8	1	0	0	0
Giving you instructions on how to do the log of the base pairs of the ladder instead of you figuring it out for yourself.	8	1	0	0	0

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
The instructions for how to use Excel, no pictures	5	4	0	0	0
The instructions for how to use Excel, with pictures	7	1	0	1	0
d1s80 lab report	5	1	1	0	2

Q22 **Please write in details about why mtDNA or d1s80 labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

5

Q23 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Relating procedures to the biological molecules	4	1	1	3	0
Types of DNA analyses- not doing a long lecture, but providing written information	6	0	0	2	1
Polyacrylamide vs agarose gels- not doing a lecture, but providing written information	7	1	0	1	0

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Transcription and translation animations	8	0	1	0	0
Transcription and translation activity with cards, codons, anti-codons, and amino acids	8	1	0	0	0
HIV and influenza lecture	5	2	0	1	1
HIV and influenza articles	5	3	0	1	0

Q24 **Please write in details about why pH labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

5

Q25 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
Bacterial transformation lecture	6	0	1	2	0
Doing the pGLO bacterial transformation	9	0	0	0	0
Explaining the controls for the pGLO lab	7	0	1	1	0
pGLO lab write-up	7	0	0	0	2

Q26 **Please write in details about why bacterial transformation labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

6

Q27 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
ELISA lab I, simulated disease spread	9	0	0	0	0
ELISA lab 2, concentration of unknown	6	1	1	1	0
Making paper drawings/model of ELISA	8	1	0	0	0
Questions to go with ELISA labs	7	1	1	0	0

Q28 **Please write in details about why ELISA labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

6

Q29 **Please give a preliminary evaluation of the following labs, activities, or lessons**

	Continue to use	*Do not use again*	*Modify next time*	*I don't remember it*	*Choose to not respond*
How to use the photodocumentation system	7	1	0	1	0
Lab jobs for a few of the bigger labs	7	2	0	0	0
Lab clean-up stamps	5	4	0	0	0

Q30 **Please write in details about why these labs, activities, or lessons should be kept, tossed, or revised. Also include suggestions for revisions.**

5

Q31 **Are there any labs or activities we did not do that you wish we had done?**

8

Q32 **How did what we did in biotech help you with your AP biology class or for studying for the test? Please give as many concrete examples as possible.**

3

Q33 **Please give any suggestions you have for the biotech class so that the AP bio experience can be better. We may not be able to do the labs before they are done in AP bio, but other than that, what suggestions do you have?**

3

Thank you very much for providing your opinions and advice. Future biotech students will benefit from your ideas.

After clicking on the submit button it can take a few moments for the survey to process. Please be patient.