

## Genetics 1 Classwork Answer sheet

Name

**Instructions:** Download the slides and read through them carefully. Write your answers on the slides so that you can study from them for the test. THEN: Please copy your answers into this answer sheet and then submit this document on Canvas.

*Note: Save the document with **THE FIRST THREE LETTERS OF YOUR LAST NAME AT THE BEGINNING***

For example **BRA\_ HoB 20 polyallelic inheritance Answer sheet**









### Inheritance patterns table

I have overlain a table and text boxes that you can fill in on top of this figure

2<sup>nd</sup> column: fill in the description of the type of inheritance pattern

3<sup>rd</sup> column: fill in the genotypes underneath or next to the phenotype shown.


Type of Inheritance pattern Relationship among alleles of a single gene	Description of how the alleles in a heterozygote interact and what the phenotype will be (in general)	Example and how alleles are named
Simple Mendelian Inheritance (Dom/recc) Complete dominance of one allele	Heterozygous phenotype same as that of homozygous dominant	$PP$  $Pp$ 
<b>Incomplete dominance</b> of either allele		   <div></div>
<b>Codominance</b>		<div></div> 
Multiple alleles/ polyallelic inheritance		ABO blood group alleles <div></div>
Pleiotropy	One gene affects multiple phenotypic characters	Sickle-cell disease Cystic fibrosis

## HoB 20 polyallelic inheritance

Question					
<b>1A</b>	Find the best video of what happens when you mix the antibodies of one blood type with the red blood cells of another blood type. Post link on line under this assignment. Once you've done that you will be able to see other people's picks and then we can vote on the best one later in the week.				
<b>1B</b>					
	<b>Cell type</b>	No Antigens	Type A Antigens	Type B Antigens	Type A and Type B Antigens
<b>2</b>	Possible Genotype(s) Available alleles: IA, IB or i				
<b>3</b>	Antibodies in blood: <i>anti ...</i>				
<b>4</b>	Genotype(s) =				
<b>5</b>	<i>Relative proportions of each of the ABO blood types</i>				
	<b>Blood type</b>	<b>A</b>	<b>B</b>	<b>AB</b>	<b>O</b>
	<i>in the US?</i>				
	<i>in the World?</i>				
	<i>home/ ancestral country?</i> <i>Name of country:</i>				