Name:

Packet Due Date:

	Life Science
Unit 4	Genetics
Part 2	Ethics and Genetics





for ea	ach section you will	Grading earn a grade based	on the following cri	iteria
4	3	2	1	0
Nothing is missing. Responses consistently meets ALL the criteria for high quality work. Evidence of exemplary effort is evident.	Work is 75-100% complete and accurate. Work/effort misses the criterion for high quality consistently.	Work is 50-75% complete and accurate. Work has evidence of quality but not consistently.	More than 50% of the work in incomplete or incorrect. Work does not meet the expected level of quality.	No work completed.

What are ethics and How they are Related to Science
are the rules or standards governing the conduct by which I live my life and make all my decisions. One of the best ways of thinking about ethics is to take a quick look at what you believe and then think about how you would react when those beliefs are challenged.
Why do you think that people would not all have the same ethical viewpoint?
How do Ethics relate to science?
Science has the capacity to cure diseases, improve crop yields, reshape the
planet and carry us into the cosmos, but are there also downsides to science when we do not think about the moral implications of experiments.
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Heredity is the passing on of physical or mental characteristics genetically from one generation to another. In humans, DNA is composed of _____ different chromosomes. is the set of genes in our DNA which is responsible for a particular trait. is the physical expression, or characteristics, of that trait. traits will show up in a person if they appear in a person's gene. bb B - dominant brown eye allele brown eyes b - recessive blue eye allele brown eyes blue eyes traits can be carried in a person's genes without appearing in that person.

You Try		
	notype label what will be the P wer case are recessive traits	henotype. Assume Capitals are
B= Brown Eyes	H = Brown Hair	D = No dimples
b= Blue eyes	h = Blonde Hair	d = dimples
Geno	type	Phonotype
Hì	ı	
BI	3	
hŀ	1	
Do	d	

Create a Alien





Part 1 Procedure:

- Flip a coin twice to determine the genotype for each trait and record it in the data table.
 Heads = allele 1, Tails = allele 2 (Example: if you flipped heads twice, your monster will have two copies of allele 1 for his genotype.)
- 2. Determine the **phenotype** resulting from the allele pair for each trait.
- 3. Repeat steps 1-2 for each trait and complete the female monster's Table 1.

Table 1: Genotypes & Phenotypes for Female Monster

Trait	Allele 1	Allele 2	Genotype	Phenotype
Eye	Two small eyes (E)	One large eye (e)		
Eye Color (incomplete)	Red (R)	White (R')		
Skin Color (codominant)	Green (G)	Blue (B)		
Tail Shape	Curly (C)	Straight (c)		
Tail Color	Purple (P)	Orange (p)		
Tail (regulatory gene)	Have tail (T)	No tail (t)		
Teeth	Sharp (S)	Round (s)		
Feet (incomplete)	Four toes (F)	Two toes (F')		
Horn Color	Purple (W)	White (w)		
Ear shape	Pointy (Y)	Round (y)		
Ears (regulatory)	No ears (N)	Two ears (n)		
Claws	Long (L)	Short (I)		

Ethical Dilemma
Ethical Dilemma
Was the alien that you created; what you would have wanted?
How would you have created the alien if you could have picked anything?
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is the deliberate modification of the characteristics of an organism by manipulating its genetic material.

Ethical Dilemma Pro and Cons of Genetic Engineering Pros Cons

CER
Do you believe that using genetic engineering to modify human DNA is ethical or not?

GMOS
or genetically modified organism, is a plant, animal, microorganism or other
organism whose genetic makeup has been modified in a laboratory using genetic
engineering or transgenic technology
What are some examples of GMO foods?
Why did people want to genetically modify food?
why did people want to genetically modify lood:

Ethical Dilemma		
Pro and Cons of GMOS		
Pros	Cons	

CER
Do you believe that companies using GMOS in food is ethical or not?
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