

# OUTLANDISH SPECIMEN

Names \_\_\_\_\_ Hour \_\_\_\_\_

You have just become one of the best genetic engineers on Earth. You're respected in your field and you're on your way to greatness. The problem is...you're becoming a little bored with your job. To help make the job a little more fun, you have decided to create a new creature...an OUTLANDISH SPECIMEN!!!

What to do...

We are going to combine traits from random organisms to create a strange, but very odd creature that no one in the world has seen before!

You, as the genetic engineer must take genes from many **different**, but **all heterozygous** organisms. This is how you'll do it...

For each trait, you and your partner will flip a coin to determine which allele will be passed down from the parents.

**HEADS = DOMINANT TRAIT**  
**TAILS = RECESSIVE TRAIT**

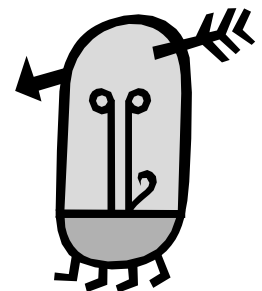
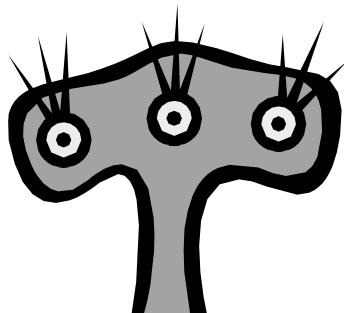
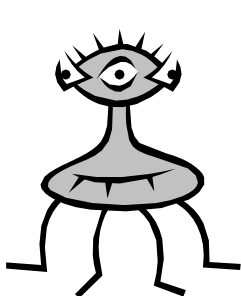
The offspring's genotype will be determined by the coin flip.

(ex. One partner flips a heads and the other flips a tail. Partner #1 will then circle "A" because it is dominant and partner #2 will circle the "a" because it is recessive. The offspring's genotype will then become "Aa")

From the offspring's genotype, you will be able to determine what the phenotype (physical feature) of the offspring will be!

From this information, you will draw a picture of your outlandish specimen on a blank piece of paper and then name it! (School appropriate please!)

Each partner is responsible for turning in a completed gene sheet, but only one picture is necessary.



#	Trait	Allele From Mom	Allele From Dad	Child's Genotype	Child's Phenotype
1	Face Shape	A a	A a		
2	Eye Size	B b	B b		
3	Eye Shape	C c	C c		
4	# of Feet	D d	D d		
5	# of Arms	E e	E e		
6	Antenna	F f	F f		
7	Eyelashes	G g	G g		
8	Mouth Size	H h	H h		
9	Teeth Type	I i	I i		
10	Tail	J j	J j		
11	# of Eyes	K k	K k		
12	Nose Size	L l	L l		
13	Hairy Face	M m	M m		
14	Skin Color	N n	N n		
15	Eye Color	O o	O o		
16	Hair Color	P p	P p		
17	Eyebrow Length	Q q	Q q		
18	Gills	R r	R r		
19	Neck Size	S s	S s		
20	Whiskers	T t	T t		
21	# of Noses	U u	U u		
22	Attitude	V v	V v		

# PHENOTYPE KEY

**DOMINANT TRAIT = D**

**RECESSIVE TRAIT = R**

- |     |            |                             |                                  |
|-----|------------|-----------------------------|----------------------------------|
| 1.  | Face Shape | D = Wide Face               | R = Narrow Face                  |
| 2.  | Eye Size   | D = Large Eyes              | R = Small Eyes                   |
| 3.  | Eye Shape  | D = Round Eyes              | R = Cat Eyes                     |
| 4.  | # of Feet  | D = 4 Feet                  | R = 2 Feet                       |
| 5.  | # of Arms  | D = 2 Arms                  | R = 4 Arms                       |
| 6.  | Antenna    | D = Has Antenna             | R = No Antenna                   |
| 7.  | Eyelashes  | D = Has Eyelashes           | R = No Eyelashes                 |
| 8.  | Mouth Size | D = Normal Mouth            | R = Large Mouth                  |
| 9.  | Teeth Type | D = Sharp Teeth             | R = Rounded Teeth                |
| 10. | Tail       | D = Has Tail                | R = No Tail                      |
| 11. | # of Eyes  | D = 2 Eyes                  | R = More than 2 Eyes             |
| 12. | Nose Size  | D = Normal Nose             | R = Large Nose                   |
| 13. | Hairy Face | D = Some Hair               | R = Lots of Hair                 |
| 14. | Skin Color | D = Lighter Skin            | R = Darker Skin                  |
| 15. | Eye Color  | D = Both Eyes<br>Same Color | R = Both Eyes<br>Different Color |
| 16. | Hair Color | D = Lighter Hair            | R = Darker Hair                  |
| 17. | Eyebrows   | D = Two Eyebrows            | R = Unibrow                      |
| 18. | Gills      | D = Has Gills               | R = No Gills                     |
| 19. | Neck Size  | D = Thick Neck              | R = Narrow Neck                  |
| 20. | Whiskers   | D = Has Whiskers            | R = No Whiskers                  |
| 21. | # of Noses | D = 1 Nose                  | R = More Than One Nose           |
| 22. | Attitude   | D = Friendly                | R = Angry                        |

