NewWorm Genetics	Two NewWorm Phenotypes			
	NewWorm3	NewWorm4		
<b>Body:</b> Flat: <b>BB</b> or <b>Bb</b> Round: <b>bb</b>	flat body	round body		
Mouth: Oval: ?? Slit: ??	slit mouth	oval mouth		
Head: Broad: ?? Medium: ?? Narrow: ??	narrow head	medium head		
Rings: No Rings: RR or Rr Rings: rr	rings	no rings		
Color: Green: CC Brown: Cc Black: cc	brown	green		
Tail (Male): Pointed: TT or Tt Blunt: tt	blunt	pointed		
Tail (Female): Pointed: TBlunt: t				
(The Tail gene is on the X chromosome.) (The – [dash] stands for the Y chromosome.)	male	female		
Sex: Males: XX Females: XY				

## PHENOTYPE-GENOTYPE MAPPING

## For each characteristic, circle ALL of NewWorm3's and NewWorm4's possible genotypes.

Characteristic	NewWorm3					Characteristic	NewWorm4				
1. Body	BB	Bb	bb	B–	b–	7. Body	BB	Bb	bb	B–	b–
2. Mouth	ММ	Mm	mm	M–	m–	8. Mouth	ММ	Mm	mm	M–	m–
3. Head	нн	Hh	hh	H–	h–	9. Head	нн	Hh	hh	H–	h–
4. Rings	RR	Rr	rr	R–	r_	10. Rings	RR	Rr	rr	R–	r–
5. Color	сс	Сс	сс	C–	c-	11. Color	сс	Сс	сс	C–	C-
6. Tail	тт	Tt	tt	T–	t–	12. Tail	ТТ	Tt	tt	Т–	t–

## **Remember**:

- the allele for oval mouth  $(\mathbf{M})$  is dominant to the allele for slit mouth  $(\mathbf{m})$  and
- the allele for broad head (H) is incompletely dominant to the allele for narrow head (h) and medium head is in between broad and narrow.