



Genetics Student Worksheet #3

Drosophila Worksheet (Answer Sheet)



Male Drosophila (XY) – dark, rounded abdomen
Female Drosophila (XX) – Long, pointy, striped abdomen

Drosophila traits –

Eye color: red (dominant), white (recessive), sepia or brown (recessive)

Body color: yellow (dominant), black (recessive), grey (recessive)

Wing type: long wings (dominant), no wings (recessive), short wings (recessive)

Punnett Square Practice:

1. Cross a female, red-eyed fly with a male, white-eyed fly.

	R	R
r	Rr	Rr
r	Rr	Rr

Phenotype result (physical trait description): 100% red eyes

Genotype result (genetic makeup): 100% Rr



2. Cross a male homozygous short-winged fly with a female heterozygous long-winged fly.

	W	w
w	Ww	ww
w	Ww	ww

Phenotype result: 50% long wings, 50% short wings

Genotype result: 50% Ww, 50% ww

3. Cross a homozygous, grey female with a heterozygous, black male.

	g	g
B	Bg	Bg
b	bg	bg

Phenotype result: 50% black bodies, 50% black and grey bodies

Genotype result: 50% Bg, 50% bg

4. Cross a male and female randomly selected from your card piles.
5. Cross a male and female randomly selected from your card piles.

Phenotype result:

Genotype result:

Phenotype result:

Genotype result: