

# Punnett Square Worksheet

Name \_\_\_\_\_ Date \_\_\_\_\_ Class \_\_\_\_\_

1. Examine the diagrams below. Each is a step in the Punnett square method. Put the steps in order by writing the numbers 1 to 4 below them on the correct blanks.

	D	d
D		
d		

	D	d
D	D	d
d	D	d


	D	d
D	DD	Dd
d	Dd	dd

2. What do the letters outside the Punnett square stand for? \_\_\_\_\_

What do the letters inside each box stand for? \_\_\_\_\_

3. Examine the following Punnett squares and circle those that are correct.

	D	d
d	Dd	dd
d	Dd	dd

	D	D
d	Dd	DD
d	Dd	DD

	D	d
D	DD	Dd
d	Dd	Dd

	D	D
D	DD	DD
d	Dd	Dd

	A	a
A	AA	Aa
a	Aa	aa

	A	a
A	AA	aa
a	Aa	Aa

	A	a
a	Aa	aa
a	Aa	aa

	A	a
A	AA	AA
A	AA	a

4. Complete the following to determine the expected offspring.

	T	t
T		
T		

	e	e
E		
e		

	R	r
R		
r		

	S	S
S		
s		

5. In corn plants, normal height  $H$  is dominant to short height  $h$ . Complete these four Punnett squares showing different crosses. Then, shade red all the pure dominant offspring. Shade green all the heterozygous offspring. Leave all the pure recessive offspring unshaded.

	$H$	$H$
$h$		
$h$		

	$H$	$h$
$H$		
$H$		

	$H$	$h$
$H$		
$h$		

	$H$	$h$
$h$		
$h$		

6. In flies, long wings  $L$  are dominant to short wings  $l$ . Complete these four Punnett squares showing different crosses. Then, shade red all the offspring that will have long wings. Leave all the shortwinged offspring unshaded.

	$L$	$L$
$l$		
$l$		

	$L$	$l$
$L$		
$l$		

	$l$	$l$
$l$		
$l$		

	$L$	$l$
$l$		
$l$		

7. In guinea pigs, short hair  $H$  is dominant to long hair  $h$ . Complete the following Punnett squares according to the directions given. Then, fill in the blanks beside each Punnett square with the correct numbers.

- a. One guinea pig is  $Hh$  and one is  $hh$


Offspring expected (number)

\_\_\_\_\_ Short hair

\_\_\_\_\_ Long hair

- b. Both guinea pigs are heterozygous for short hair.


Offspring expected (number)

\_\_\_\_\_ Short hair

\_\_\_\_\_ Long hair