

Gregor Mendel and Heredity

Who was Gregor Mendel?

- Gregor Mendel – (1822 – 1884)
- The Father of Genetics
- Austrian Monk
- Studied the _____ of _____
- Developed the _____ of _____
- Work was not recognized until _____
- Between _____ and _____ cultivated and tested thousands of pea plants
- Found that the plant's _____ retained _____ of the parents
- Mendel stated that physical traits are inherited as _____
- Did not know about _____ and DNA

Why did he use peas?

- Can be _____ in a small area
- Produce lots of _____
- Produce _____ pure plants when allowed to _____ - pollinate
- Can be _____ - _____
- Tested 7 _____ of peas
 - Flower color
 - Flower position
 - Seed color
 - Seed shape
 - Pod shape
 - Pod color
 - Plant height

His experiment

- Crossed flowers that were _____ - _____ for each characteristic
- Crossed a purple (__ __) flower with a white (__ __) flower
- All the flowers were purple (F1)

	Purple (P)	Purple (P)
White (p)		
White (p)		

- Crossed F1 generation purple flowers together (____ x ____)
- In the F2 generation, he had 3 purple flowers and 1 white flower

	Purple (P)	Purple (p)
Purple (P)		
Purple (p)		

Conclusions

- Mendel noticed in the first generation (F1), all of the _____ flowers seemed to disappear.
- He called this a _____ trait.
- The white color faded into the background at first.
- It showed up in the next _____ when he pollinated the flowers.
- The color (purple) that seemed to mask over the recessive color was named the _____ trait.
- Mendel was responsible for figuring out that each plant carried two sets of _____ for each characteristic (one from the “mom” and one from the “dad”).
- Like many scientists, his work was not accepted until after his death.

Review

If you breed a true-breeding black bunny with a true-breeding white bunny, the offspring would be:

	Black (B)	Black (B)
White (w)		
White (w)		