White County 4-H

Rabbit Educational Activities – 10th grade

Project Year _____

4-H'er Name	Club				
Activity #1					
,					
Marketing					
1. List the ways to market your rabbits and their prod	ucts. (pg 91 – 93)				
a					
b					
c					
d					
e					
f					
2. List 3 ways to advertise breeding stock.					
a					
b					
c					
d					
Define:					
3. Fryers:					
4. Stewers					
5. Roasters:					
6. Meaty					
7 prove another outlet for pet rab	bits. (pg 92)				
8. When is the best time to sell pet rabbits?	(pg 92)				
9 rabbits are used for their wool, for the purposes of crocheting and knitting fashions. (pg 93)					
10. Rabbit manure is a great use as a fertilizer on gardens, plants and lawns. (pg 93) True or False					

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Rabbit	Breeds-Advanced	Level

Activity #2

Find the breeds listed below in this word search puzzle. Draw a line through or circle the words horizontally, vertically, or diagonally forward or backward. Parts of an answer may be used twice.

Α	M	E	R	1	С	Α	Ν	S	Α	В	L	E	K	N
R	R	Р	Α	L	0	M	l	N	0	Т	0	Z	E	Α
0	P	0	L	D	N	Α	L	L	0	Н	G	V	N	
G	Ε	F	G	J	U	С	E	Т	M	I	F	Е	G	N
N	Р	N	Р	N	Α	С	0	W	Α	L	Т	Т	L	R
Α	R	0	G	N	Α	Н	C	Ν	E	R	F	I	1	0
Н	R	Α	Q	L	F	Ν	T	М	Α	G	Н	Н	S	F
S	Ш	Y	I	R		Α	l	М	0	S	G	W	H	I
1	V	L	Α	\bigcirc	Z	S	R	Т		L	I	Α	L	L
L	S	W	Z	G	Н	E	Н	L	Α	Ν	F	D	0	Α
G	D	О	0	G	V	F	0	S	R	S	I		Р	С
N	В	R	I	L	\mathcal{O}	Р	Н	W	Р	F	Υ	R	G	0
Е	Α	Α	I	X	M		Ν	I	L	0	Р	0	E	Р
В	Ν	S	I	L	V	E	R	F	0	Χ	Т	L	M	X
Т	Ν	Е	W	Z	Е	Α	L	Α	N	D	В	F	S	W

American American sable Californian Dwarf Hotot English Angora English Lop English Spot Flemish Giant Florida White French Angora
Giant Angora
Holland Lop
Hotot
Lilac
Mini Lop
Mini Rex
New Zealand
Palomino

Polish Rex Satin Satin Angora Silver Silver Fox Silver Marten Tan

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4-H'er Name	Club	
		_

Project Year _____

Activity #3

Genetics—Advanced Level

Gregor Mendel, an Austrian monk and practicing biologist, is referred to as the founder of genetic science. He was the first person to study inherited traits and to propose theories and laws of heredity. Mendel discovered that pure strains always breed true.

In rabbits, almost all of the genes that affect coat color are found on just four pairs of chromosomes, which have been classified into the Major Coat Color Series. This series has been labeled A (agouti coloration), B (brown coloration), C (color), D (dilution of color), and E (extension of black color). The genes of the A series are located on one chromosome pair. The genes of the B and C series are found on a second chromosome pair. The genes of the D series are found on a third chromosome pair, and the genes of the E series are located on a fourth pair of chromosomes.

A gene that is responsible for the agouti coloration may be present at each of the five (A to E) main chromosomal locations of the major coat color series. The agouti gene in a rabbit is dominant; therefore, any rabbit that has at least one agouti gene at each of the chromosomal locations (A to E) will have the agouti color. The dominant agouti gene may be replaced by alleles, or different versions of the gene.

For the following activities, refer to the Genetics section in Chapter 8 of the *Rabbit Resource Handbook* (4-H 228R) for terminology and other information that may be helpful in answering the questions.

The A series has three alleles: A (Agouti), a^t (Tan), and a (Non-agouti). If both a buck and a doe possess the AA homozygous genotype, all offspring would have the agouti coloration (phenotype). An example using the Punnett Square is below:

Buck F₁ Generation

Doe		A	A
F ₁ Generation	A	AA (agouti)	AA (agouti)
	A	AA (agouti)	AA (agouti)

The above Punnett Square shows a mating where both F_1 agouti parents are homozygous dominant AA.

What are the F_2 results from this illustrated mating? Answer the questions below.

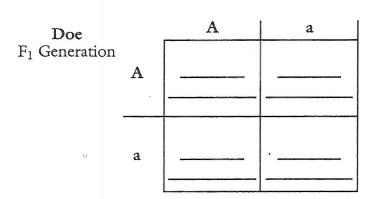
- 1. What is the genotype of the F₁ generation buck in the above illustration?
- 2. What is the genotype of the F₁ generation doe in the above illustration?
- 3. What is the phenotype of the F_2 generation offspring in the above illustration?

Activity

Complete the Punnett Square provided below for both the genotypes and phenotypes of the buck and doe discussed in the following statement:

If a buck and a doe possess the Aa heterozygous genotype, three offspring would have the agouti coloration, and one a non-agouti color, for a 3:1 phenotypic ratio of F_2 offspring.

Buck F₁ Generation



Questions