

GOATS VS SHEEP FACT SHEET

Here are some ways to tell the difference between an Angora goat and a sheep!



GOATS

GENUS: Capra
60 Chromosomes

No groove in the upper lip.



Short, upright tails.

Narrow, upright horns.

Foragers: Prefer to eat weeds, twigs, leaves, and shrubs.

Must eat copper in their diets.

Curious and independent.

Grow **hair** on their bodies that makes materials like cashmere or mohair.

Some breeds have hair that grows like a beard.

GENETICS

LIPS

TAILS

HORNS

DIET

BEHAVIOUR

FIBRE



SHEEP

GENUS: Ovis
54 Chromosomes

Upper lip has a groove, called a "philtrum".



Longer tails that hang down.

Wide horns that curve around the face.

Grazers: Prefer to eat grass and clover.

Sensitive to copper if ingested.

Prefer to stay together, close to their flock.

Grow **wool** on their bodies that does not shed and needs to be sheared.

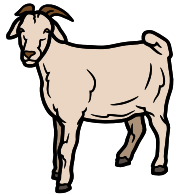
Some breeds have wool that grows like a mane.

OTHER FACTS:

- Some breeds of sheep and goats have no horns at all.
- Goats and Sheep can be pastured together, since they prefer to eat different vegetation.
- Most breeds of goat do not need to be sheared - but Angora Goats do!
- Sheep are usually sheared once per year. Angora goats are sheared twice per year.

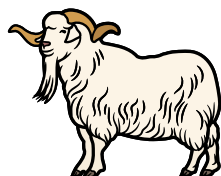
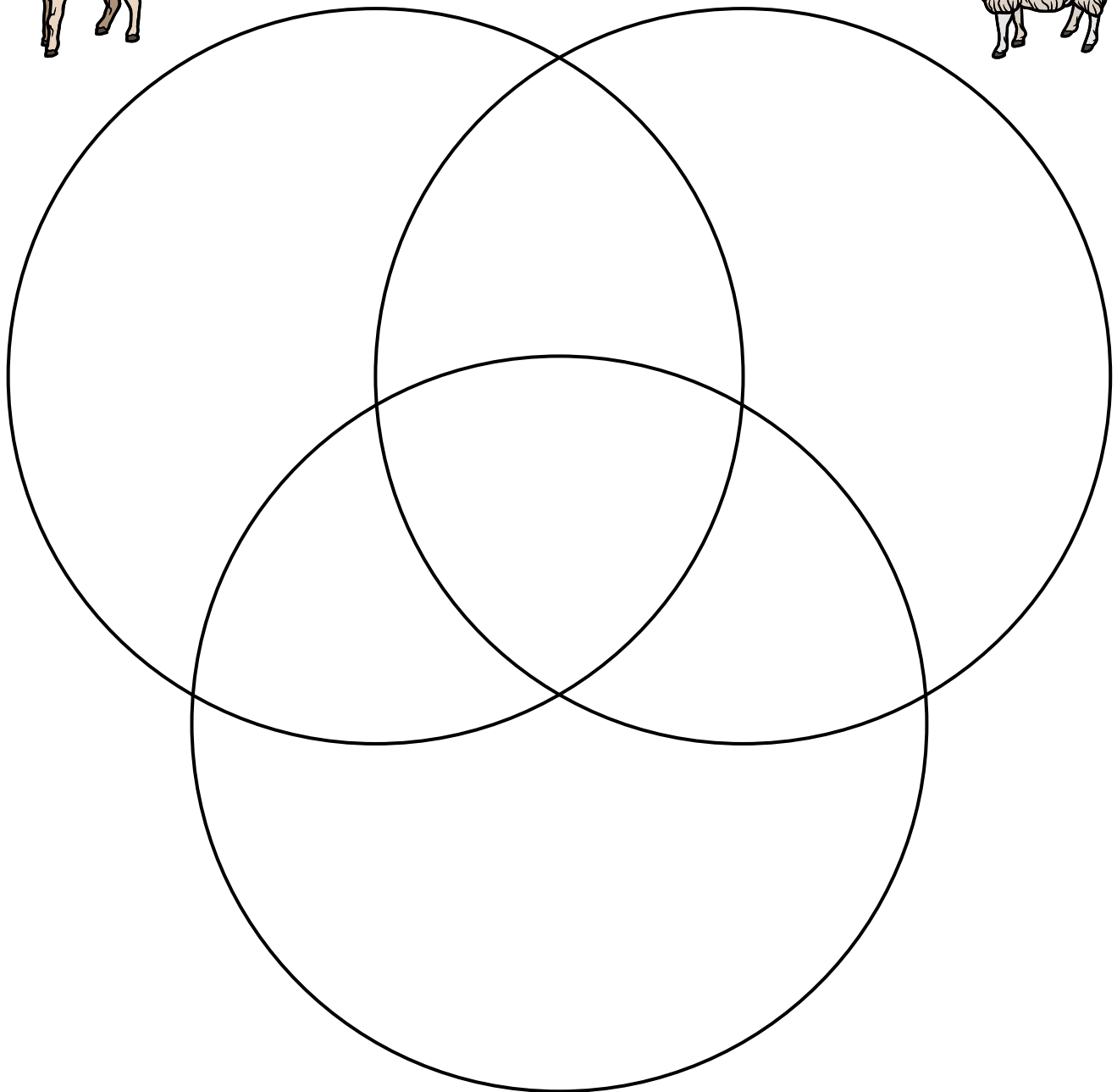
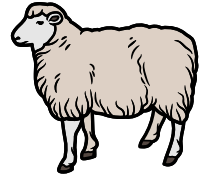
PART 1: GOATS OR SHEEP?

Using the *Goats vs Sheep Fact Sheet* as well as your own research, complete the Venn diagram below to compare and contrast goats, sheep, and Angora goats.



GOATS

SHEEP



**ANGORA
GOATS**

PART 2: BIOLOGOCAL CLASSIFICATION

An Angora goat has a long, curly, usually white coat of mohair. It has the basic body structure of a goat and can reproduce with other domestic goats.

1. Identify the phenotype. Which characteristics in description above are examples of phenotype?

2. What is genotype? In your own words, define genotype.

3. In your own words, explain what scientists mean by biological classification.

4. Classification: Where Does an Angora Goat Fit?
Using some research, complete the classification.

Domain _____
Kingdom _____
Phylum _____
Class _____
Order _____
Family _____
Genus _____
Species _____

ANGORA GOAT WORKSHEET

5. A student says: "Angora goats must be a different species from other domestic goats because they look so different to other goat breeds and so similar to sheep."

Do you agree or disagree? Explain your answer using biological terms.

6. Does having different phenotypes necessarily mean that two organisms belong to different biological species?

Give an example or explain why not.

Explain how an Angora goat demonstrates the difference between phenotype, genotype, and biological classification.

INVESTIGATION

Why are Angora goats still goats?

Research the history of Angora goats and **selective breeding**. Find evidence that supports the following statement: **Human selection can influence the phenotype and genetic composition of a population without necessarily creating a new species.**

VOCABULARY BANK

Phenotype: Observable characteristics of an organism.

Genotype: The genetic makeup or combination of alleles an organism possesses.

Allele: An alternative form of a gene.

Selective breeding: Human-directed breeding in which organisms with desirable characteristics are chosen as parents.

Biological classification: The organization of organisms into groups based on shared characteristics and evolutionary relationships.

Species: A biological group whose members are generally capable of reproducing with one another and producing fertile offspring.

Population: Members of the same species living in a particular area.

Evolution: Change in the inherited characteristics of populations over generations.