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Species sheet – All about dogs!



You love dogs and want to know more about them, their communication signals, cognitive abilities and the way they perceive the world? Find out more in this new species sheet!

This species sheet was produced with the support and proofreading of Caroline Gilbert, veterinarian, ethologist and professor at the Ecole Nationale Vétérinaire d'Alfort and Claire Diederich, veterinarian, ethologist and professor at the University of Namur.

All about dogs!

ID CARD

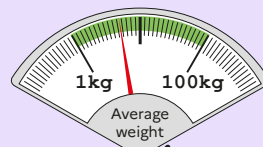


Nom scientifique : CANIS (LUPUS) FAMILIARIS
Ordre : MAMMALS
Famille : CANIDAE
Espérance de vie : 8 TO 15 YEARS
Gestation : 63 DAYS (1 TO 15 PUPPIES)
Domestication : ~33 000 YEARS BC
Signature : Lassie

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+ Physiology

The International Canine Federation listed 356 dog breeds in 2023. There is great variability between breeds.



♥ 70 à 120 BPM

🌡 38,5 °C

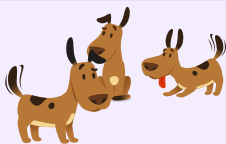
🐾 Monogastric



Average height :
0.2m - 1m

Social behavior

Groups of stray or feral dogs

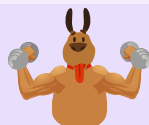


Social cohesion

Dogs live in small groups of unrelated individuals, usually less than 5

Dominance?

There is no established hierarchy or "alpha" individual within a group



Leadership

The groups include leaders who initiate activities

Territory

Dogs do not defend territories, but rather places directly linked to resources associated with rest/reproduction/feeding



Communication signals

Dogs communicate their emotions through postures, facial expressions and vocalizations. Here are a few stress signals: it is important to take them into account to better interact with your dog and avoid being bit.

Yawning



Shaking off



Head to the side or sniffing the ground



Trembling, low tail and posture



Nose licking



Cognitive skills

Able to discriminate between individuals (dogs and humans)

Highly skilled at detecting human emotions (joy, anger, sadness, fear)

Very competent at responding to pointing (more so than wolves)



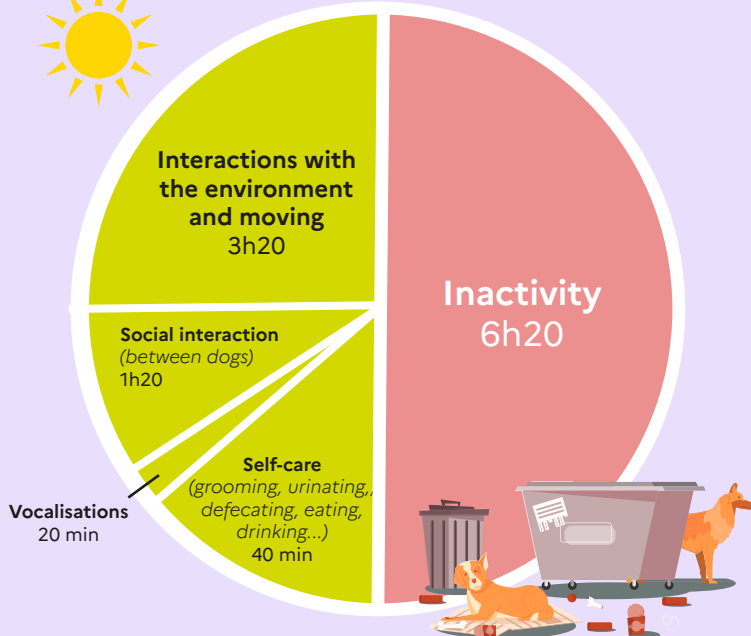
DID YOU KNOW?

An untrained dog can understand about 100 different words while a trained dog can understand 300 to 1,000 words.



A typical day

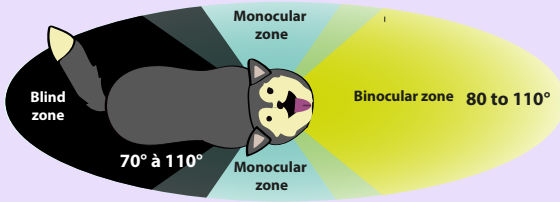
of a stray dog over a 12-hour period



Sensory capabilities

View

Extended visual field (vision between 250° and 290°).



Dogs see twice as good as cats but 5 times worse than monkeys.

Dogs seem to see **blue** and **ultraviolet** but not **red**, **green** or **yellow**.

DID YOU KNOW?
Toy color has no effect on your dog!

Excellent **motion detection**.

Good **low-light** vision (5 times better than human vision).

Taste

Dogs have **12 times fewer** taste receptors than humans.

A dog selects food provided by humans **according to its appearance, smell, taste and texture**.

Smell

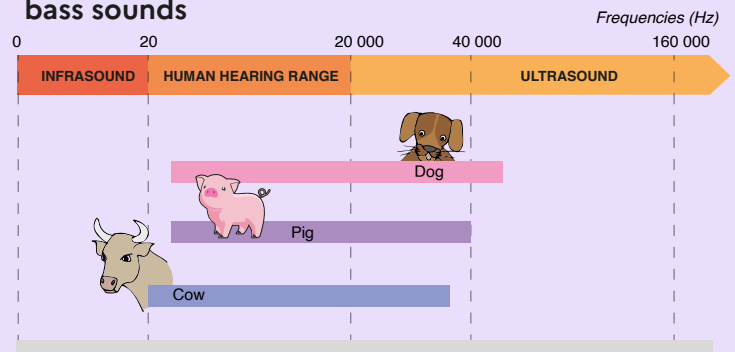
Dogs **detect odors that are 1,000 to 100 million times less concentrated** than those detectable by humans.

Their olfactory abilities depend on **environmental conditions** (*humidity and atmospheric pressure*).

Their sense of smell is used for **communication** (*via scents and sexual pheromones*) and **exploration** (*recognition of other dogs, caregiver, sexual interactions...*).

Hearing

Dogs perceive **high-pitched** sounds better than **bass sounds**



Dogs can produce ten vocalizations for communication. Barking frequencies range from **500 to 16,000 Hz**.



If they are too frequent, they can be a sign of **discontent**.

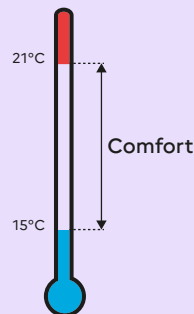
Touch

Sensitivity to touch



Preferred contact areas between dogs

Thermal sensitivity (for a beagle, labrador or cross-breed)*



There are **3 types of skin receptors**: mechanoreceptors (pressure, touch), thermoreceptors (temperature), nociceptors (pain).

Touch is a very little-studied sense, but one that dogs use via **short contacts**.



DID YOU KNOW?
Not all dogs appreciate being petted (especially on the head)

***Thermal comfort for dogs depends on breed, while ambient temperature perception depends on humidity and air speed.**