

Rabbit Breeding and General Care

Is it a Buck or Doe?

You must be able to identify rabbit gender to know how many bucks and does you have. Then you can properly mate rabbits or prevent unwanted matings. The gender must be determined before showing and registering your rabbits.



Rabbit Skill: Determine the Gender of a 4–8 week old rabbit

Life Skill: Observing

Success Indicator: Properly identify gender of several rabbits

Science Standard: Characteristics of organisms

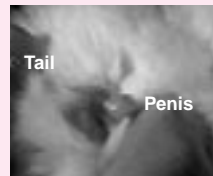
“Hop to it!”

Assemble a litter of 4–8 week old rabbits. Practice the proper position to hold a rabbit and determine its gender.

Note: Always wear a long sleeved shirt to avoid being scratched!

- With your left hand, hold the rabbit in a sitting position on the table.
- Using your right hand, place the thumb behind the right hind leg and use your index and forefinger to depress the tail backwards and downwards.
- Then use the thumb to gently depress the area in front of the sex organs to expose the reddish membrane.

Buck

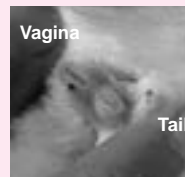


Buck 4 week



On the buck, the organ will protrude as a well-rounded tip (penis).

Doe



Doe 4 week



On the doe, the membrane will protrude to form a slit (vulva) with a depression at the end next to the anus.

Rabbit Rap

Share What You Did

How difficult was it to determine the gender of a rabbit?

Process What's Important

Why is it necessary to know the gender of a rabbit? Why is it important to separate litter mates by gender at weaning?

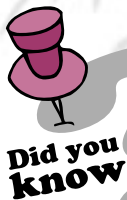
Generalize to Your Life

Why is gender important when showing rabbits?

Apply What You Learned

How old does your breed of rabbits need to be to determine their gender?

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Did you know

Litter mates must be separated at weaning to keep them from fighting and destroying their fur and preventing unwanted pregnancies.

Rabbit Facts Mating of Rabbits

Does normally mature 30 to 60 days before bucks.



Gender must be determined at weaning time!

Take the doe to the buck's cage for mating. Leave doe in buck's cage only long enough for the mating to occur. Remate the doe in 8 to 12 hours to increase litter size and conception rate.

A mature buck may be mated to one or two does daily and serve a total of 10 to 20 does.

Bounding Ahead

1. Demonstrate to your club how to determine gender in rabbits.
2. Visit a commercial rabbitry to see how they use gender to feed and cull rabbits.

Rabbit Breeding

How old should a doe be before she is first bred to the buck? How should the mating occur? How soon after the doe kindles should she be rebred? These are just some of the questions about rabbit reproduction that you need to know to be a successful rabbit raiser. See what you now know and what you can learn.



Rabbit Skill: Arrange the statements about rabbit reproduction in the order in which they occur.
Life Skill: Learning to learn
Success Indicator: Presents and justifies to the helper the sequence of rabbit reproductive practices.
Science Standard: Life cycles of organisms

“Hop to it!”

Here are 13 statements related to rabbit reproduction. Number each statement from 1–13 in the order in which they occur. Begin with a doe that is sexually mature (e) and end with the doe recuperating before kindling the next litter (d). Then explain to your helper what each statement means.

- ___ a. A mature male can be used on a daily basis to mate with one or two does.
- ___ b. Take the doe to the buck's cage for mating.
- ___ c. The doe is most receptive to the buck about 72 hours after kindling.
- 13** d. The doe has two weeks to recuperate before kindling the next litter.
- 1** e. Begin with a doe that is sexually mature.
- ___ f. The doe kindles.
- ___ g. Remate the doe in eight to 12 hours to increase litter size and conception rate.
- ___ h. The doe is palpated 12 to 14 days after mating and found to be pregnant.
- ___ i. Examine the external genitals of the buck and doe for any infections prior to mating
- ___ j. Leave the doe in the buck's cage only long enough for the mating to occur.
- ___ k. The litter is weaned after she is found to be pregnant.
- ___ l. The buck will mount the doe. After the doe raises her hindquarters and if the mating is successful the buck will fall off backwards or to the side.
- ___ m. The female rabbit ovulates one hour after mating.



Rabbit Rap

Share What You Did

How did you decide the order of the statements?

Process What's Important

Why is knowing each step of the breeding cycle important? How does the breeding time change if does have small litters, are commercial production does or are fancy rabbits?

Generalize to Your Life

What breeding schedule do you have for your rabbits? When you need to find information such as in this activity what resources do you use?

Apply What You Learned

What other methods do you like to use to learn new information?

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Did you know

Does can handle six to eight kits depending on the breed.

Rabbit Facts

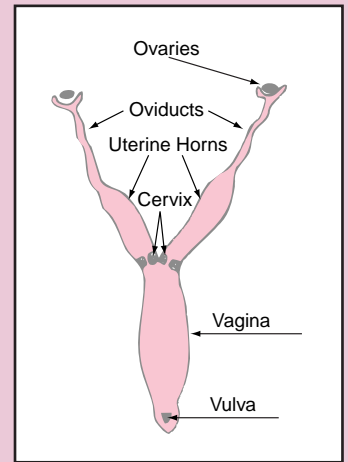
Rabbit Reproduction

Breed Differences. Miniature breeds will be sexually mature at 4 to 5 months. Medium size rabbits will take 5 to 6 months and the commercial breeds will become sexually mature at 6 to 7 months. The giant breeds don't become sexually mature until eight months of age or more.

Condition. Make sure does do not become too fat. Extreme fat accumulation within the doe's abdominal cavity is the number one cause of breeding difficulty. It acts as a physical barrier to prevent the egg (ovum) from entering the reproductive tract to be fertilized. The conception rate is greatly reduced.

Light. Place does in the lightest area of the rabbitry or use artificial light. Rabbits need 14 to 16 hours of daylight.

Breeding. Rabbits will breed almost at any time of year. The female rabbit ovulates following mating. The usual time between (mating) and ovulation is one hour. The doe ovulates about 72 hours after kindling. This is why you can breed a healthy doe that loses her litter immediately.



The vulva of the doe in heat is usually purple to reddish pink and somewhat swollen. This is a good indication that the doe will conceive if mated at this time. Usually the vulva is a pale pink.

Bounding Ahead

- 1. When would you breed a Californian doe to show her offspring in the 6 to 8 month classes at a July 20–25 county fair? Discuss with your helper how you figured the time to breed.

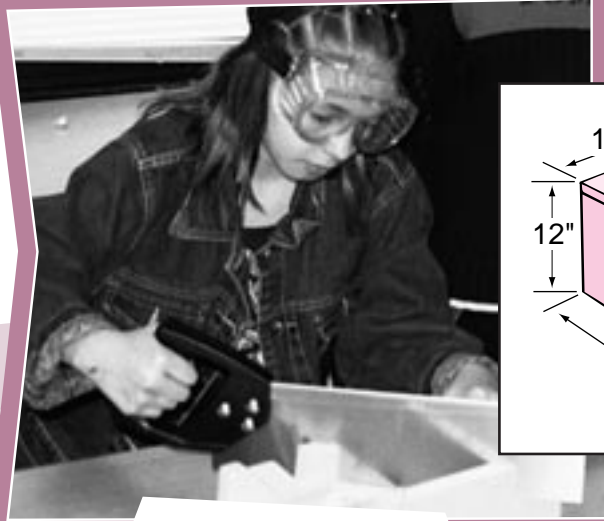
Kits 'n Kaboodle

You need to provide a nest box for your doe before she gives birth. A nest box keeps the kits dry, protects them from very hot and cold weather and hides them from predators.

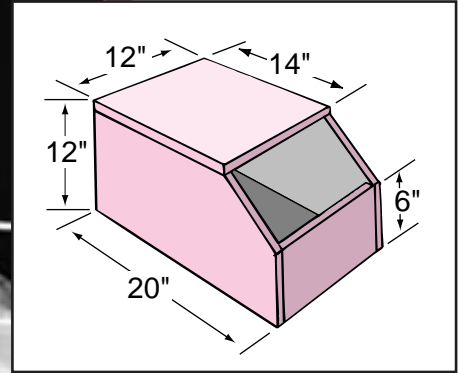
Rabbit Skill: Build a nest box.
Life Skill: Planning and organizing
Success Indicator: Plans and completes a rabbit nest box.
Science Standard: Organisms and environments

« Hop to it! »

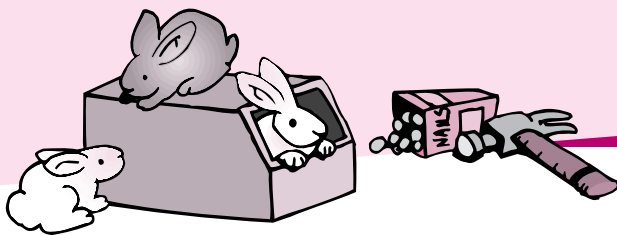
After careful planning and determining the needed dimensions, build a nest box. Show your nest box design including dimensions and materials used. A drawing of one kind and size of nest box is shown.



Building a nest box



My Nest Box Plan



Rabbit Rap

Share What You Did

Describe how you planned the building of your nest box.

Process What's Important

What are some other plans you have made for your newborn kits? What's most important about the design of a nest box?

Generalize to Your Life

What kinds of planning do you do by yourself, without help from others?

Apply What You Learned

Why is it important to plan for major events?



Acknowledgments: Written by Jeff Dick

Rabbit Facts

Rabbit Nest Box

Nest boxes can be made from many different materials and designs.

Size

A nest box needs to be slightly larger than the doe that will be using it. A nest box that is too large can be a cause of death to litters. The doe will stay in the box after nursing and foul the box. Damp bedding containing her urine and droppings can create respiratory illness in the kits. A general practice is about 3 inches longer than the doe and about 2 inches wider. Giant breeds require the sides to be approximately 12 inches high, medium breeds need sides about 9 inches high. The smaller breeds need sides only 6 to 7 inches high.

If you choose a nest box with a partially closed top, drill several holes near the top of the back wall. This allows body heat to escape from the nest and omit some moisture in the box.

Materials

The three basic materials for nest boxes are wood, metal and wire. The wooden nest box can be made of scrap lumber. Wooden boxes provide warmth in cold weather and can be used for many years. Metal boxes are not as warm in cold weather. They are light weight for ease of cleaning and storage. They have a replaceable or disposable bottom that provides ventilation in warm weather. Wire nest boxes may be the most sanitary of all types. They have a disposable liner that goes in them and can be discarded after use.

Cleaning

Clean and disinfect after each use. Some breeders have one nest box for each doe and use the same box for the same doe every time. Often the nest boxes are scraped and washed with disinfectant or warm water mixed with household bleach after each use.

If possible, expose them to natural sunlight until they are completely dry.

Straw, hay, shredded paper, non-toxic wood shavings, etc. may be used for nesting material. Clean straw is easy for the rabbits to make nests.

Bounding Ahead

1. Describe to your helper what you would do one week prior to the doe kindling to one week after she kindles.

Baby Boom

When beginning your rabbit project, you will soon discover working with young rabbits requires a lot of hard work. A critical time is during kindling. Just as the kits will depend on the doe for their care, the doe will depend on you for special care.



Rabbit Skill: Describe kindling care.
Life Skill: Communicating with others
Success Indicator: Demonstrates young rabbit care.
Science Standard: Organisms and environments

“Hop to it!”

Use the library, world wide web, local rabbit breeders and/or your county extension office to research material on rabbit kindling. Use the information to develop an illustrated talk with posters, pictures, etc. to describe the care needed for kindling. Outline your demonstration on a separate paper. Include in your talk answers to frequently asked questions like these:

- What do kits look like when they are born?
- What kind of care does a doe give to her kits?
- What should the average size (number) of a litter be?
- How many teats does a doe have for nursing?
- What might you need to do to care for kits if a litter is too large?
- When are kits weaned?
- How many litters can a doe have each year?
- When should the nest box be removed from the cage?
What special kinds of care does a doe and her kits need?

“Rabbit Rap”

Share What You Did

What did you include in your talk?

Process What’s Important

Why is kindling such an important time?

Generalize to Your Life

What did you learn by preparing a talk?

Apply What You Learned

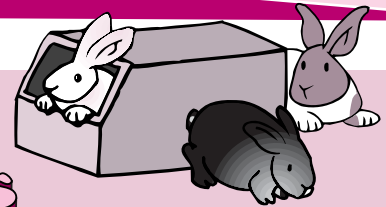
How else might you share information with others?



“Bounding” Ahead

1. Make a display or poster showing the things you learned about rabbit kindling.
2. Make at least 10 questions about kindling and quiz your family or use the questions in a quiz bowl.

Rabbit Facts



Kindling Tips

Nest Box - Put the nest box in the doe’s hutch about 28 days after the doe has mated. Use clean straw or other nesting materials. Use a sheet of Styrofoam between the bottom of the nest box and a solid floor to help keep the box warm in the winter.

As soon as your doe has kindled, check the nest box and remove any bloody masses and dead kits. Check the nest box every day during the summer months. If necessary, the kits may be handled. The doe will not neglect her kits because they have been handled. If your doe has 12 kits but can only feed six, you will want to foster off six of the kits.

Feed - After you are sure the doe is pregnant, gradually increase her feed. Do not overfeed because a fat doe has trouble kindling (giving birth). Cut down on the feed to the doe for a couple days after kindling. Then gradually increase it until about the 10th day so she is getting all the feed she wants.

Water - During kindling a doe may be thirstier than usual. Give her all the water she wants.

Rabbit Talk 1



A

ARBA - American Rabbit Breeders Association.

B

Back - The entire top part of the rabbit from neck to tail. The backbone and vertebrae are in the back.

Balanced ration - A ration that has the proper proportions of individual ingredients to provide for nutritional needs of the rabbit.

Belly - The lower part of the body containing the intestines—the stomach. (When defining color area: The underbody of the rabbit from the forelegs to the crotch area.)

Blemishes - Flaws or defects, especially those that affect appearance.

Breed - A race or special class of domestic rabbits that have specific fur markings and texture, shape, size and growth. A breed may be further divided into varieties. Examples: the Black, Blue and Tortoise varieties of the Dutch breed. Also: to breed is to mate.

Breeder - One who breeds or raises a special variety or varieties of rabbits. The breeder follows standards or rules to keep the breed strong and healthy.

Buck - An unaltered male rabbit.

Bunny - A pet name for a rabbit.

C

Cheeks - The sides of the face beneath the eyes.

Chest - The front part of the body between the forelegs and neck—the breast.

Condition - The physical state of a rabbit; its health, cleanliness, texture, moult of fur and grooming.

D

Dewlap - The fold or folds of loose skin hanging from the throat of a doe.

Doe - An unspayed female rabbit.

F

Fertility - The ability to reproduce, or have young.

Flank - The sides of the rabbit, between the ribs and hips, above the belly.

Foot - That part of the leg on which the animal walks or stands. On the foreleg—that part below the ankle or pastern. On the rear leg—that part below the hock joint.

Four class rabbits - Rabbit show category for all breeds having ideal adult weight under nine pounds. There are four show classes for these rabbits: senior bucks, senior does, junior bucks and junior does.

Fryer - Young meat rabbit under five pounds.

G

Gestation - The period of time that a doe is pregnant (carries her young) from breeding to kindling (28–32 days).

H

Hindquarters - The rear section of the body containing the loin, hips, hind legs and rump.

Hip - The thigh joint and large muscular first joint of the hind leg.

Hock - The middle joint or section of the hind leg between the foot and hip.

Hutch - A human-built cage or rabbit home that gives protection to the animal.

K

Kindle - The process of giving birth to young rabbits. Also called kindling.

Kit - A baby rabbit under 16 ounces.

L

Litter - The young rabbits being raised by one doe.

Loin - The part of the back on either side of the spine and between the lower rib and hip joint.

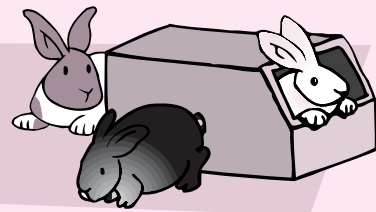
Luster - Brightness and brilliance of fur.

M

Massive - Bulky and heavy; ponderous; large.

Mate - To breed.

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N

Neck - The part of the animal that connects the head and body

Nest box - A kindling box inside or attached outside the hutch or cage where the kits are born and live for the first 18 to 21 days. Normally placed with the doe 28 days after she is bred.

Nursing - Kits suckling milk from their doe for nourishment.

O

Ovulation - The release of an egg (ovum) from an ovary.

P

Pad - The foot area in contact with the cage or hutch that protects the foot and hock

Pair - A male and female rabbit.

Palpate - To examine by feel or test for embryos to see if a doe is pregnant.

Pedigree - Written chart of the male and female ancestors of a rabbit. Shows the date of birth, ownership of dam and the parents, grandparents and great grandparents.

Pelt - The hide of the animal after it is removed from the animal. Does not include the head, feet, tail or legs.

Penis - The male organ responsible for reproduction and urination.

Pregnant - A doe carrying young; a bred doe.

Processing - Process of harvesting the edible protein, or meat, of the rabbit.

R

Rabbitry - The area or building in which a group of hutches and rabbits are kept.

Registration - The process of making sure that a rabbit meets the qualifications established by the American Rabbit Breeders Association for that breed and has a three-generation pedigree. Requires examination by a licensed registrar or judge.

Reproduce - To have young.

Ribs - The curved parts of the side of the body immediately back of the shoulders and above the belly that protect the organs on the side.

Rump - The hind or rear parts of the back.

S

Saddle - The rounded, intermediate part of the back between shoulder and loin.

Sexing a rabbit - The process of determining if a rabbit is a doe or a buck.

Shoulder - The upper joint of the foreleg, connecting it with the body.

Sire - The male rabbit (buck) used for breeding.

Standard of Perfection - A book stating the characteristics of each recognized breed of rabbits as approved by a registering organization.

T

Tattoo - The permanent identification mark of a rabbit which is placed in the left ear. The A.R.B.A. number goes in the right ear.

U

Uterus - The reproductive organ in the doe in which developing kits are carried and nourished before birth. Also called the womb.

V

Variety - A division within a breed. Type indicates the breed; color determines the variety.

Vulva - The external (outer) female sexual organ.

W

Weaning - The process by which young rabbits are removed from the doe to prevent nursing. A young rabbit is weaned when it is between four and eight weeks old, depending on breeding schedule and breed of rabbit.

Wool - Applied as descriptive of the fur of Angora rabbits; the guard hairs and under-fur being from two-and-a-half to four inches in length and resembling fine wool in texture.

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