



We are designing chicken coops



Your task:

Design a chicken coop, with adequate space for 20 light chickens, using the information given.

Use the information on space requirements, ventilation, roosts and nests from the packet (Taken from Storey's Guide to Raising Chickens) to design the coop.

Remember to refer often to the Coop Design section on the first page to ensure that you have taken everything into consideration. The chickens will be free ranged so you do not need to have a covered area for the chickens to range.

You may use squared paper to draw your design. The design can be presented as a diagram and/or a sketch but you need to have measurements marked on your plan so that it can be built.

You will need to present your coop design to me or another teacher and be able to defend your design explaining how it will satisfactorily house the 20 chickens in a safe and humane way.

Before we begin... View these pictures of chicken coops to give you some idea.



CHICKEN COOP DESIGNS are as varied as people who keep chickens. The best design for you depends on how many chickens you keep, your purpose in keeping them, their breed, your geographic location, and how much money you want to spend. A handy way to get ideas is to find successful chicken keepers in your area — or correspond with those who live in a similar climate — and pick their brains as to what works and what doesn't.

Coop Design

Some people provide their flocks with perfectly adequate housing by converting unused toolsheds, dog houses, or camper shells. Others go all out, such as the fellow I knew in California who built a two-story structure, complete with a cupola, for his fancy bantams.

No matter how it's designed, a successful coop has these twelve characteristics:

- ◆ is easy to clean
- ◆ has good drainage
- ◆ protects the flock from wind and sun
- ◆ keeps out rodents, wild birds, and predatory animals
- ◆ provides adequate space for the flock size
- ◆ is well ventilated
- ◆ is free of drafts
- ◆ maintains a uniform temperature
- ◆ has a place where birds can roost
- ◆ has nests that entice hens to lay indoors
- ◆ offers plenty of light — natural and artificial
- ◆ includes sanitary feed and water stations



Space

The more room your chickens have, the healthier and more content they'll be. Except in extremely cold climates, home flocks are rarely housed entirely indoors but have room to roam outside whenever they please. Yet even in the best of climates, chickens may sometimes prefer to remain indoors due to rain, extreme cold, or extreme heat.

Minimum space requirements, including those shown in the accompanying chart, indicate the least amount of indoor space birds need when they can't or won't go outside for an extended period of time. Birds that never have access to an outside run will do better if you give them more space than the absolute minimum. On the other hand, birds that spend most of their time outdoors, coming in only at night to roost, will do nicely with less space.

Minimum Space requirements

Birds	Age	Open House	
		sq ft/Bird	Birds/sq m
Heavy	1 day-1 week	-	-
	1-8 weeks	1.0	10
	9-15* weeks	2.0	5
	15-20 weeks	3.0	4
	21 weeks and up	4.0	3
Light	1 day-1 week	-	-
	1-11 weeks	1.0	10
	12-20 weeks	2.0	5
	21 weeks and up	3.0	3
Bantam	1 day-1 week	-	-
	1-11 weeks	0.6	15
	12-20 weeks	1.5	7
	21 weeks and up	2.0	5

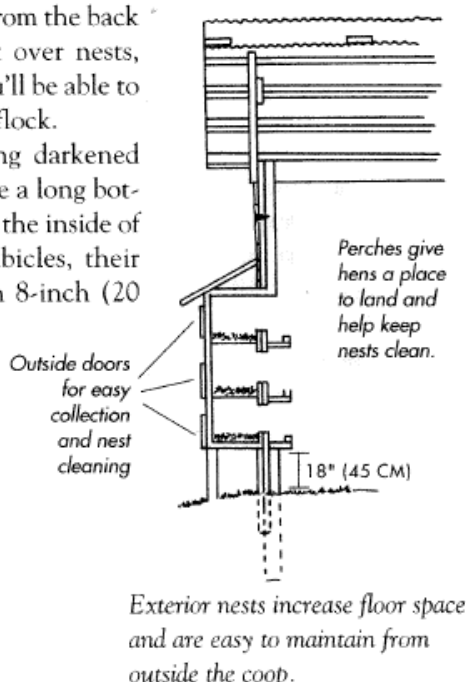
Nests

Hens, by nature, like to lay their eggs in dark out-of-the-way places. Nest boxes encourage hens to lay eggs where you can find them and where the eggs will stay clean and unbroken. Furnish one nest for every four hens in your flock. A good size for Leghorn-type layers is 12-inches wide by 14-inches high by 12-inches deep (30 x 35 x 30 cm). For heavier breeds, make nests 14-inches wide by 14-inches high by 12-inches deep (35 x 35 x 30 cm); for bantams, 10-inches wide by 12-inches high by 10-inches deep (25 x 30 x 25 cm).

A perch just below the entrance gives hens a place to land before entering, helping keep the nests clean. A 4-inch (10 cm) sill along the bottom edge of each nest prevents eggs from rolling out and holds in nesting material. Pad each nest with soft clean litter and change it often.

Place nests on the ground until your pullets get accustomed to using them, then firmly attach the nests 18 to 20 inches (45–50 cm) off the ground. Raising nests discourages chickens from scratching in them, possibly dirtying or breaking eggs. Further discourage non-laying activity by placing nests on the darkest wall of your coop. Construct a 45-degree sloped roof above nests to keep birds from roosting on top. Better yet, build nests to jut outside the coop and provide access from the back — chickens won't be able to roost over nests, they'll have more floor space, and you'll be able to collect eggs without disturbing your flock.

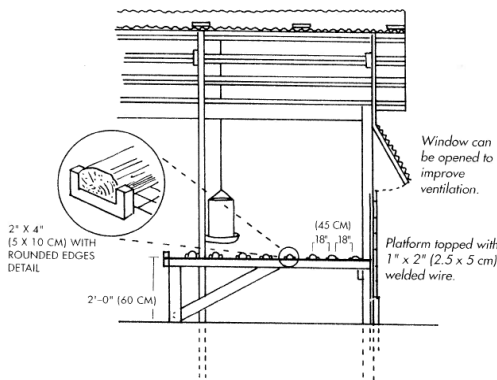
An alternative plan for creating darkened nests that are easy to clean is to place a long bottomless nest box on a shelf. Partition the inside of the box into a series of nesting cubicles, their entrances facing the wall. Allow an 8-inch (20 cm) gap between the wall and the entrances so hens can walk along the shelf at the back. Build a sloped roof above the shelf to prevent roosting. Add a drop panel at the front of the box for egg collection. To clean the nests, make sure no eggs or hens are inside, then pull the box off the shelf and the nesting material will fall out.



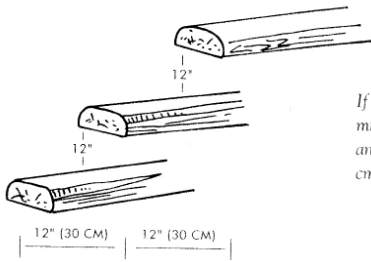
Roosts

Wild chickens roost in trees. Many of our domestic breeds are too heavy to fly up into a tree, but they like to perch off the ground nevertheless. You can make a perch from an old ladder or anything else strong enough to hold chickens and rough enough for them to grip without being so splintery as to injure their feet. If you use new lumber, round off the corners so your chickens can wrap their toes around it. Plastic pipe and metal pipe do not make good roosts; they're too smooth for chickens to grasp firmly. Besides, given a choice, chickens prefer to roost on something flat, like a 2 x 4 (5 x 10 cm).

The perch for regular-sized chickens should be about 2 inches (5 cm) across, or no less than 1 inch (2.5 cm) for bantams. Allow 8 inches (20 cm) of perching space for each chicken, 10 inches (25 cm) if you raise one of the larger breeds. If one perch doesn't offer enough roosting space, install additional roosts. Place them 2 feet (60 cm) above the floor and at least 18 inches (45 cm) from the nearest parallel wall, and space them 18 inches (45 cm) apart. If floor space is limited, step-stair roosts 12 inches (30 cm) apart vertically and horizontally, so chickens can easily hop from lower to higher rungs. Either way, make perches removable for easy cleanup and place droppings boards beneath them.



This roost is made from 2" x 4" (5 x 10 cm) with rounded edges, mounted for easy cleaning and spaced 18" (45 cm) apart over a raised platform surrounded by wire mesh to keep chickens from picking in their droppings.



If roosting space is at a premium, step-stair perches and space them 12" (30 cm) apart.

Ventilation

The more time chickens spend indoors, the more important ventilation becomes. Ventilation serves six important functions:

- ◆ supplies oxygen-laden fresh air
- ◆ removes heat released during breathing
- ◆ removes moisture from the air (released during breathing or evaporated from droppings)
- ◆ removes harmful gasses (carbon dioxide released during breathing or ammonia evaporated from droppings)
- ◆ removes dust particles suspended in the air
- ◆ dilutes disease-causing organisms in the air

Ventilation holes near the ceiling along the south and north walls give warm, moist air a place to escape. Screens over the holes will keep out wild birds, which may carry parasites or disease. Drop-down covers, hinged at the bottom and latched at the top, let you close off ventilation holes as needed.

During cold weather, not only do you have to provide good ventilation but you also have to worry about drafts. Close the ventilation holes on the north side, keeping the holes on the south side open except when the weather turns bitter cold.

