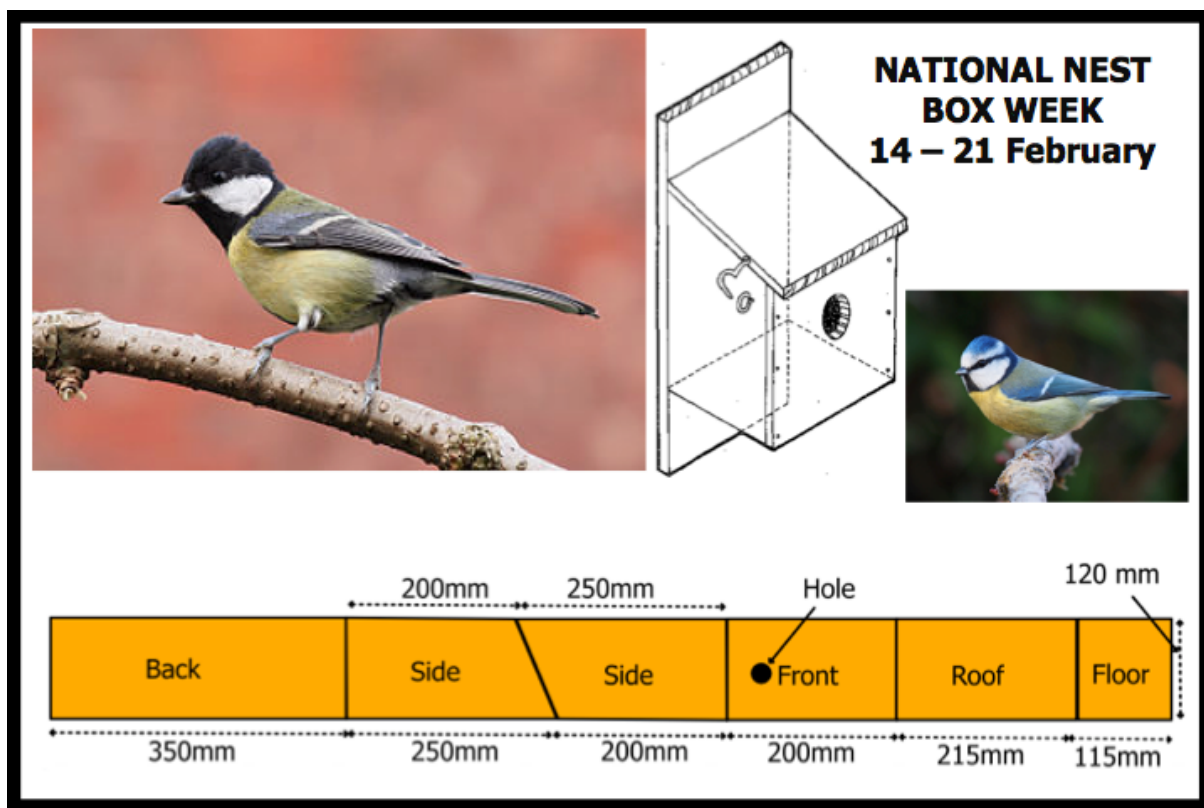


SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

The Bird Box



Download ActivInspire, PowerPoint and Teacher Notes from:

<https://spiremaths.co.uk/birdbox/>

Table of Contents

The Bird Box	1
Introduction.....	1
Pupil Activity.....	2
Materials (for a real box).....	2
Buying wood.....	2
Constructing the box from card (not for use outside)!.....	3
Extensions.....	3
Photos.....	3

Introduction

National Nest Box Week is 14 – 21 February each year.

You might want to get your pupils interested in this and cost and build a bird box (or create a model of such from card). The British Trust for Ornithology offers a leaflet on building three different bird boxes (each slightly different from the one below).

<https://www.bto.org/sites/default/files/bto-nest-boxes-essential-guide.pdf>

Also nest box building guidance is available from the Nest Box Week site below:

SPIRE MATHS

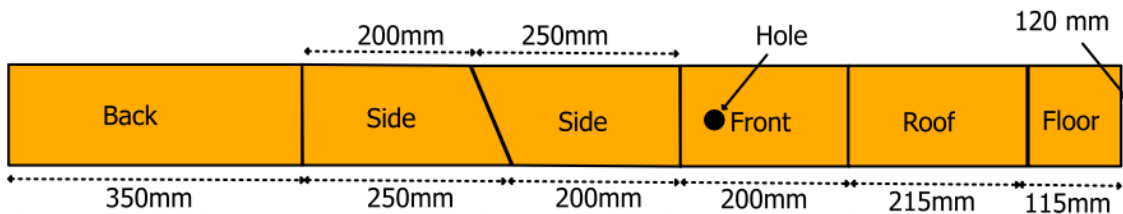
Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All
<https://www.nestboxweek.com/make-small-hole-nestbox>

Possible questions etc. are given below but this could be a much more open exercise and give scope for individual work.

Pupil Activity

The following is adapted, with permission, from Activity Maths (Level 5): The Bird Box

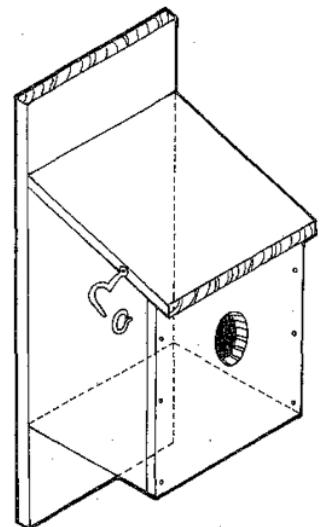
Here's a plan for a bird box designed by the Forestry Commission in 1990.



It will make a bird box for a small bird such as a wren, tree sparrow, great tit, coal tit and nuthatch. The wood must not be treated with any chemicals as these might harm the birds. Maximum diameter of the hole for blue tit is 25mm.

Instructions to make box shown on the right:

- cut wood as shown above
- drill hole in front
- fix sides to floor
- join the front to this
- join the back to this
- hinge the roof to the back.



Materials (for a real box)

Using the plans answer these questions.

1. What width of wood is needed for the box?
2. The thickness of the box is not on the plans, what thickness will you use (it should be at least 15mm)?
3. What length of wood is needed?
4. What length of wood will you buy?
5. What else do you need to make the box? Be precise.
6. How much do you think it might cost (also see later)?

Buying wood

You can usually buy wood from DIY stores in three different ways:

- in 1.8m lengths
- in 2.4m lengths
- in some places you can get it cut to length, but this costs more, and you often buy it to the nearest 30cm, with minimum length 60cm and maximum length 3.9m.

1. What would be the best way to do this for one box?
2. For making e.g. 10 boxes to sell for a good cause?
3. For making one for everyone in the group?
4. When would you need to do this?

SPIRE MATHS

Stimulating, Practical, Interesting, Relevant, Enjoyable Maths For All

Constructing the box from card (not for use outside)!

How much card would be needed? What about a net for the box?

Extensions

Consider a different plan. What are the essential features?

What are the internal dimensions?

Design a bird table.

Answers

1. 120 is suggested above, website uses 150mm, but it may depend on what wood is available.
2. Typically 15, 17, 19 are available (thicker will be more expensive and weigh more). The inside space will be less as well.
3. 1330mm = 1.33m
4. 1.8m length unless a 1.5m cut length is cheaper.
5. Some or all of glue, hammer and nails or screwdriver and screws, saw, measure, right edge, bench or work surface, safety goggles, responsible adult, patience and care.

Other answers will depend upon prices and how wood might be sold.

Photos



https://en.wikipedia.org/wiki/File:Great_tit_side-on.jpg



https://en.wikipedia.org/wiki/Eurasian_blue_tit#/media/File:Eurasian_blue_tit_Lancashire.jpg