



stem4math

## Bird house



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## Engage

### Discuss:

- What birds live near your home?

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- Do you know if they need a bird house to nest in?

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- Have you seen a bird house? Where?

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- Why do birds need bird houses more and more nowadays?

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# Investigate

Find information from the internet:

- What kind of birds need bird houses near your home?

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- What size are those bird houses?

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- Bird houses need to be cleaned. What options are there to clean your bird house?

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## Conclude

- Decide what kind of bird house you are going to build.

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- What kind of birds can live in your bird house?

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- How you are going to take care of cleaning your bird house?

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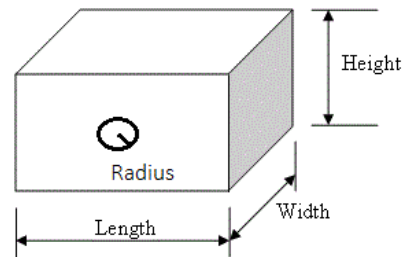




## Plan

- Draw a picture of your bird house. You can draw several pictures from different angles or you can draw only one picture in 3D. The most important thing is that there are **real size** measurements in your picture.

- When your picture is ready, scale every measurement in scale 1:5. You will use this scale in Tinkercad. If you don't scale your bird house, it won't fit the Tinkercad building surface.
- Notice that Tinkercad uses millimetres so you need to change your units to millimetres in this worksheet.



	Real measurement in centimetres	1:5 scaled measurement in centimetres	1:5 scaled measurement in millimetres
Length			
Width			
Height			
Hole radius			
Roof width			
Roof length			



## Create

- To make it easier to build your bird house, it is a good idea to draw every part that you will need. Draw a picture for every part separately and put **real size** measurements in your pictures.



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## Report

- Make a short report on what your group has made. You can use pictures from each step that you made to get your bird house ready.
- The most important steps were:
  - Discussion about birds and bird houses
  - Finding information about bird houses
  - Planning your bird house
  - Making a 3D model of your bird house
  - Planning different parts to your bird house
  - Building your bird house (many different steps here)





Now it is time for reflection. Discuss the following questions:

What have you learnt?

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Did you use mathematics? When? Examples?

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What did you do very well? Why?

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What went wrong? Why?

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What will you do differently next time?

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