



PLTW Engineering

# 12/Design Challenge – Better Bird House

May 13, 2020



**12/EDD**

**Lesson: 5/13/2020**

**Objective/Learning Target: Students will apply the design process to design and build a structure for a specific purpose.**



## Design challenge

Better Bird Feeder Inc has asked your class to design and build a prototype bird feeder to pitch at their next trade show.

The bird feeder must have 4-5 features built into the prototype that set it apart from the competition.

Follow the design process to come up with a unique and testable prototype.



## Gather materials

Collect the following materials to begin the design challenge.

### Materials for Feeder:

Non-biodegradable items- containers, rods, fasteners

Graph paper

Ruler

Measuring tape

Glue or tape

Bird seed (optional)

### Materials for Structure:

2 sheets of copier paper

Elmer's Glue

Scissors



## Gather materials

Take a look at these resources and others you find to research current bird feeder specifications already on the market.

[Different styles of bird feeders](#)

[DIY Bird feeder manufacture](#)



## Brainstorm

How will materials be connected?

How will the feeder be hung?

How will the feeder be cleaned?

What type of bird seed will be used and how will the feeder be filled?



## Design and construct your feeder

Create a materials list for the feeder.

Use a ruler or a measuring tape to measure all the construction items.

If you have some use graph paper to design your bird feeder.  
Use 1 block to equal 1 inch.



## Test and communicate your results

If you have some bird seed, test your feeder.

How long did it take a bird to find the feeder?

Did the feeder function as you had intended it to?

What changes need to be made for the feeder to function better?





## Helpful links

[Load bearing walls and structures](#)

[DIY Low cost bird feeder](#)