

1. Make an origami frog. Here are video instructions:

<https://www.youtube.com/watch?app=desktop&v=Vlb2udqPx-M>

2. Write your name on your frog. Open your Maker notebook. Title a page "Frog experiment".

3. Go back to one of the Maker worktables. Starting at one end, see how many hops it takes for you to hop the frog across the table the long way and off the other end. Write this number down in your notebook as "Try 1".

4. Repeat 4 more times. You now should have 5 numbers for 5 test rounds. **Each number is how many hops it took to get across the table from one end to the other hopping.** For example, maybe the first round it took you 10 hops to get across the table, the second time it took 12, the third time it took 8, and so on. You should have 5 numbers.

Add these five numbers together and divide by 5. This is your average number of hops to cross the table.

5. Think up a way to make a new and improved frog. Examples of ways to change the frog might be to use a different size of paper, a different weight of paper (thicker or thinner, heavier or lighter), or to add a weight or other material to the frog to make it heavier or to make it jump differently. Either make a new and different frog or modify your frog in some way that you can clearly describe. You are making a change and then seeing through experience if that change makes a difference in the experiment.

6. Run five trials with the new frog on the same course. Write your results down in your notebook. Again, add them up and divide by 5 to get a new result. Make sure you can clearly see your first five runs and their average and the second five runs and their average on your page.

7. Write a brief discussion of the results.

- Which frog did better?
- Did the change you made have the effect you expected?
- Do you have a theory as to why or why not?
- Make an effort to explain your results.

Come show me your notebook page and your frog or frogs when you are done.

Put this paper back on the table with the origami paper.