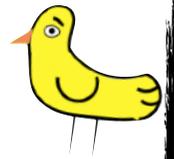


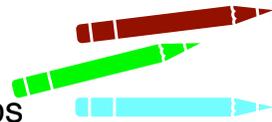
Paper Airplane Engineer



Goal: Help Rosie Revere build her first air plane. Help her come up with an idea, plan, design, and test the invention.

You will need:

- Paper
- Pencil and markers
- Paperclips, string, paper scraps
- Scissors



What to do:

- Design three different planes. Sketch what you want the finished plane to look like and describe what you used to build each plane and the steps you will take to build each plane. You may want to take pictures to record each step.
 - Make three planes and fly them.
 - Think about how you could improve your designs. Do you want to add weight to the plane or change the design of the wings?
 - Change the planes if you like then test how far they will fly!

Try this:

- Keep one of the planes simple, do not add any extra elements to it. Compare the simple plane to your other designs. Use a Venn diagram to compare the planes you created. What was the same? What was different? What worked well and what didn't work? Talk about the planning, design stages, and testing. How did you learn from each trial?
- Talk about the design of the plane and what affected the distance it flew. Can you think of other designs that would allow the plane to fly further? Test another design. Does adding weight to the design change the distance the plane will fly? Try different types of paper and material to build an airplane, for example card stock, paper towel, an index card or felt. What happens?



