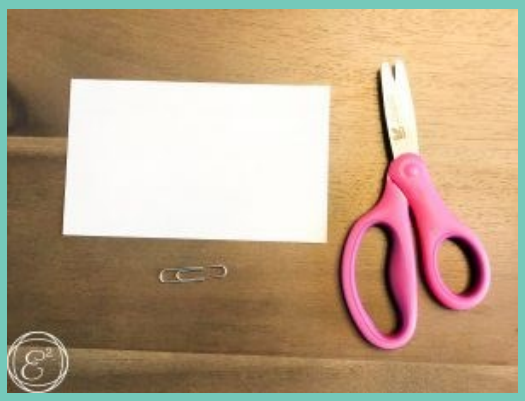
BUFFALO MUSEUM OF SCIENCE

NATIONAL ENGINEERS WEEK

Sponsored by NORTHROP GRUMMAN

MATERIALS LIST:

- An index card
- Paper clips
- Scissors



ENGINEERING AND NATURE

Engineers apply science and math to solve problems and change our world, but many also get inspiration from the forms that we can find in nature!

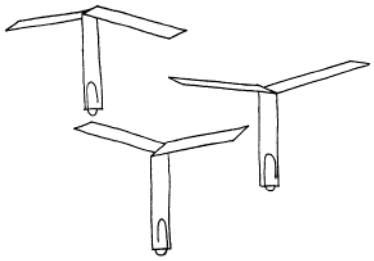
For example, in order to make super fast bullet trains, scientists and engineers looked at a bird—a kingfisher. When this bird dives into the water, it doesn't make a splash. So, the shape was used to create a train that cut through the air!

Paper Helicopter

PROCEDURE:

Have science fun as a family! Complete activities with parental supervision.

1. Cut the index card in half, lengthwise. You should have two skinny strips.
2. Fold the strip in half with the short sides touching. Make a crease.
3. Unfold the paper and, starting from a one of the short sides, cut until you reach the crease. This creates your propellors!



4. Fold down the propellors, one to th left and one to the right.
5. Add paper clips to the part that will face down. The paper clips add weight, so your creation will stay right side up.
6. Throw it in the air and see what happens!
7. Try to make other helicopter but change one thing about them. What happens if you change the shape? What about the weight of the paper clips? How can you make your helicopter spin longer? How about faster?
8. Be sure to take a picture or video to share in the Facebook comments on the Buffalo Museum of Science or Tifft Nature Preserve pages!

TRY THIS!

⇒ Think about other things in your daily life. What other ideas have engineers gotten from nature?

⇒ What are some ways that you can change the helicopter? Try it out and see how it works differently!

⇒ This activity uses the shape of the maple seed to create a helicopter. How does your helicopter fly compared to a maple seed? How are the shapes similar? How are they different?