



# Everyday Engineering

## Taking Flight

Try making these simple flyers using only items found at home.

### Hoop Gliders

#### What you need:

- Drinking Straw
- Stiff paper (construction paper, index card, junk mail postcards)
- Scissors
- Tape



#### Things to try:

- What happens if you add more hoops to the straw?
- What happens if you change the length of the straw?

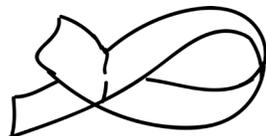
#### What you do:

1. Cut a stiff piece of paper into strips measuring 1" wide by 5" long. You'll need 3 strips for each hoop glider.
2. Curl 1 strip into a small hoop and tape the ends together.
3. Make a larger hoop by taping 2 strips together at their ends before curling it into a hoop.
4. Tape the two hoops to each end of the straw keeping the straw on the inside of the hoops. Make sure that both hoops are aligned.
5. Launch your hoop glider by holding it in the middle of straw and throwing it in the air like you would with a paper airplane.

### Flutter Fish

#### What you need:

- Paper
- Scissors
- Ruler



#### Things to try:

- Try using different widths and lengths of paper. Can you make it spin quickly? Can you make it glide slowly?

#### What you do:

1. Cut a strip of paper 1" wide by 6" long.
2. Measure 1" from the end of the strip and make a 1/2" cut.
3. Measure 1" from the opposite end and make a second 1/2" cut on the opposite side.
4. Twist the paper and slide the two cuts together to make a fish.
5. Hold it up in the air and drop it.