

Matching

Match each word on the left with the group of words on the right that you think it best belongs with.

- | | |
|----------|---------------------------------------|
| breeze | ask, think, imagine, question |
| seed | blow, air, puff, breath |
| aircraft | merry-go-round, dizzy, rotate, circle |
| wonder | grow, small, pod, hitchhiker |
| spin | helicopter, tail, wing, pilot |

Writing

Now write four words at the right to go with each word on the left.



birds

fly, wing, robin, chirp



force

travel

tornado



dandelion

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Here Come the Whirlybirds!

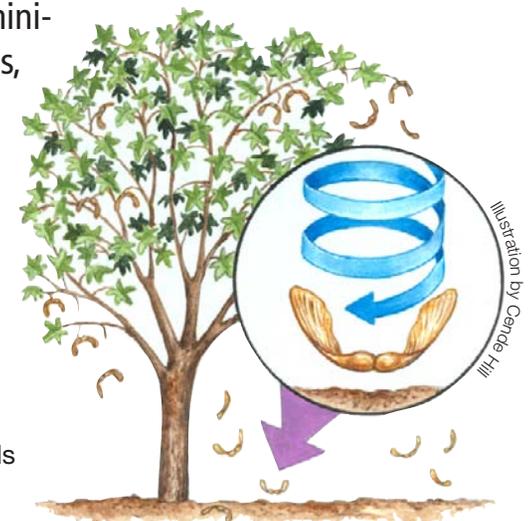
By Ron Fridell

The seeds of some plants fly like birds. You can see these seeds in action on a breezy spring day. Just sit under a maple tree and look up.

rotate. Seeds that catch a breeze can fly a mile or more before landing. Some will grow into new maple trees one day.

See Whirlybirds on page 2

You will see dozens of seeds that look like mini-helicopters, or whirlybirds, spinning around. Each seed has a light, papery wing with a heavy seedpod on the end. This pod makes the wing



“Flying” apart helps seeds avoid competing for sun, water, and space.

A team of scientists looked at these seeds and wondered: *How could they stay in the air so long? How could they fly so far?*

To find out, they made a big plastic model of a maple seed and attached it to the end of a robotic arm. Then they watched as the arm made the seed spin.

Here's what they discovered. A spinning maple seed does just what the wings of birds do. It produces a little tornado above the wing, which creates a force that sucks air up from under the wing. This force, called *lift*, pulls

Word Wise

Whirlybird is a nickname for a helicopter. It comes from the aircraft's whirling blades. Other helicopter nicknames include *chopper*, *lifter*, and *eggbeater*.



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the wing upward. It's the same force that keeps birds, bats, moths, and helicopters flying.



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Do You Know?

Velcro™ was invented in 1941 by engineer George de Mestral, who lived in Switzerland. The idea came to him one day after finding burrs (seeds) that kept sticking to his clothes and his dog's fur with tiny hooks.



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Write About This!

Do you remember *Jack and the Beanstalk* from when you were little? It's the story about a plant that grew so tall that it climbed clear through the clouds to a giant's castle. Write your own make-believe story for kids about a giant plant. Maybe you can read it to a younger student.



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By Wind, By Sea, By Animal

Some seeds use the wind to get around. Other seeds travel by water. Ocean currents can carry coconut seeds thousands of miles. Still other seeds are known as hitchhikers. They use animals to get around. Most of these seeds are sticky or spiny. As animals pass by, their skin, fur, or feathers pick up the seeds. Cactuses and burrs are hitchhikers. Maybe you've found hitchhiking seeds on a dog or your socks. Seeds travel to find good places to grow.



Try This

Get hold of some maple seeds and fly them yourself. They're fun to watch. Drop them from a balcony or a stairway and watch them spin and glide.



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