

JUST FOR U.S.*

GRADES 4-7

* UNDERSTANDING SCIENCE

Fernbank Science Center • DeKalb County School System

VOLUME 20 • ISSUE 5

1995-96

ISSN 0742-6526

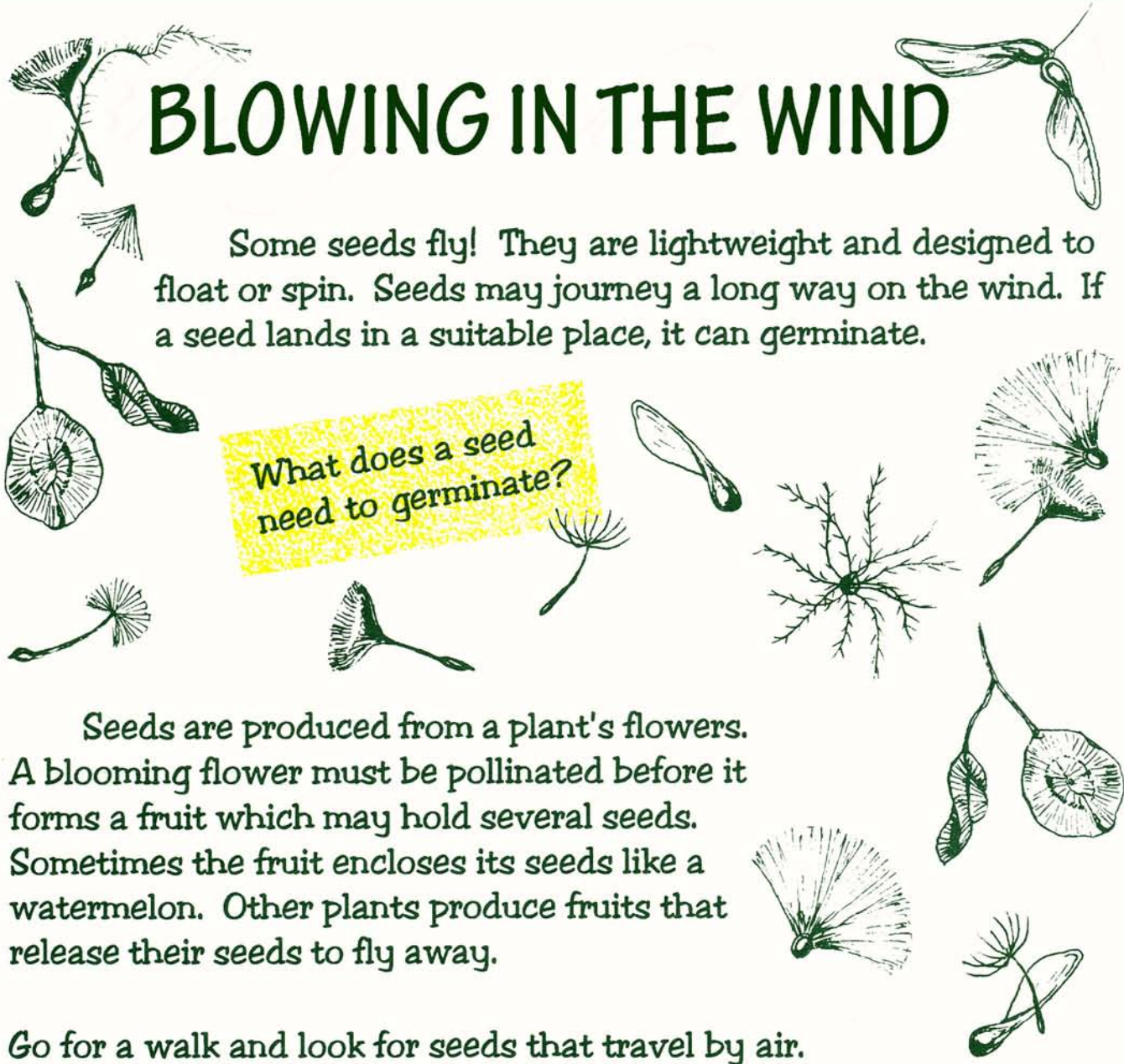
BLOWING IN THE WIND

Some seeds fly! They are lightweight and designed to float or spin. Seeds may journey a long way on the wind. If a seed lands in a suitable place, it can germinate.

What does a seed need to germinate?

Seeds are produced from a plant's flowers. A blooming flower must be pollinated before it forms a fruit which may hold several seeds. Sometimes the fruit encloses its seeds like a watermelon. Other plants produce fruits that release their seeds to fly away.

Go for a walk and look for seeds that travel by air.



FLOATING ON AIR



Dandelions grow almost anywhere. Some people call them weeds. The yellow "flower" is not really a single flower but a "flower head" made up of dozens and dozens of flowers. The flower head opens each morning and closes when the sun goes down. When you find one, sniff it, and enjoy the delightful fragrance.



After the dandelion flowers are pollinated, the fruit forms. It is a downy white ball of seeds that looks like a powder puff. The fruit, or blowball, has dozens of seeds. Each seed has a feather-like tuft fastened to its outside covering. On a gentle breeze, the

delicate

parachutes

float

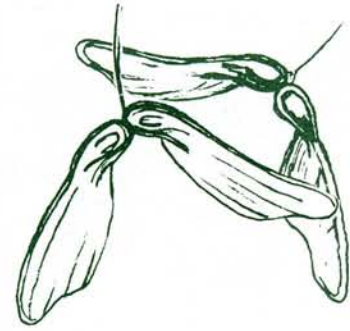
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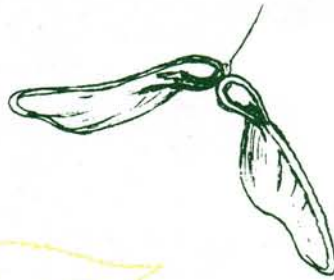


SPINNERS



Some seeds have wings!

The seed of a red maple has two wings. Falling from the tree's branches, the seed flutters gently round and round. Spring breezes can carry the bright pink seeds far away.

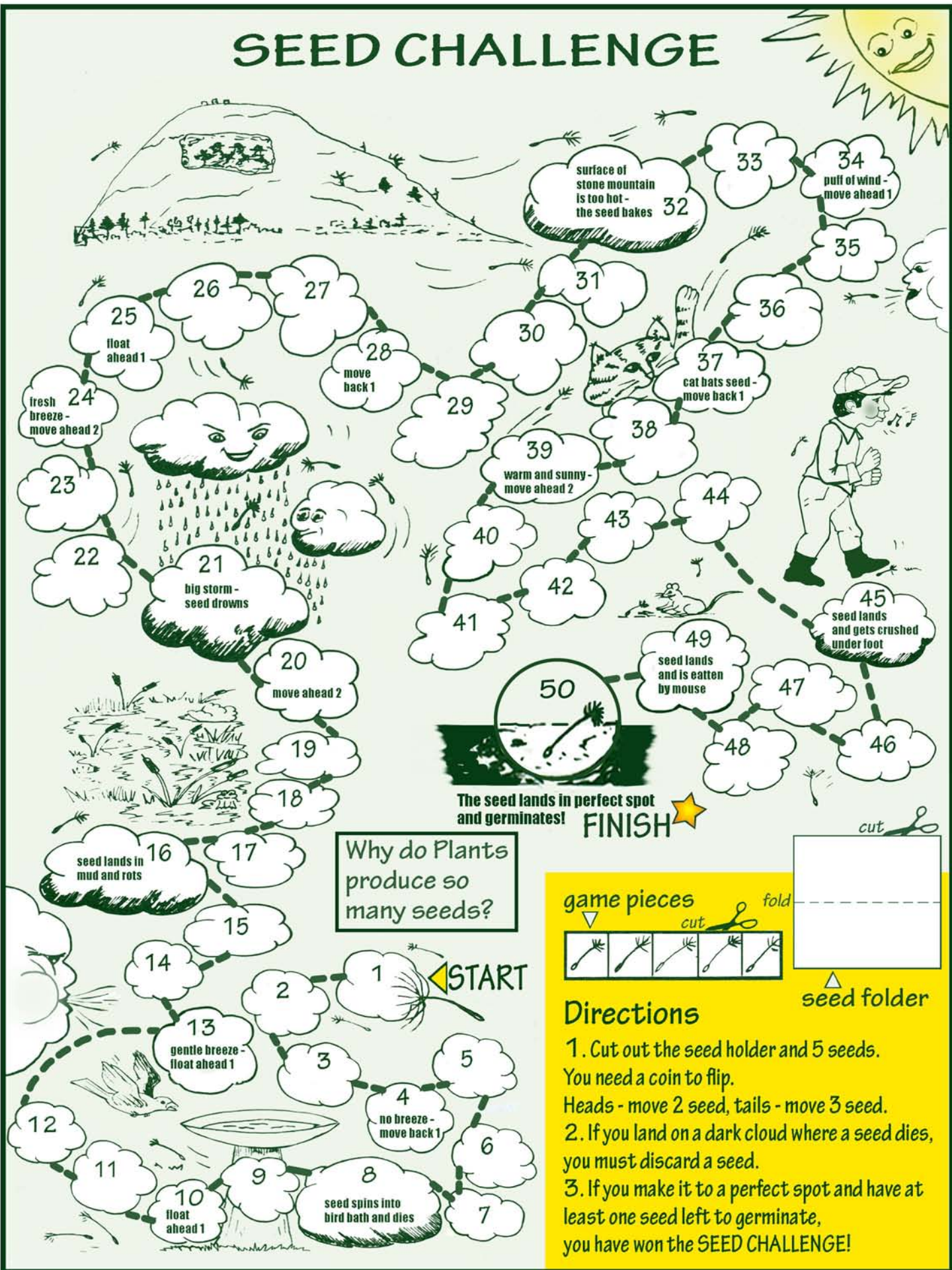


High in the sweetgum tree, tiny flowers bloom in the spring. After they are pollinated, they produce an unusual fruit, the gum ball. These round woody balls swing in the treetops during the summer.

As the seeds inside ripen, the gum ball turns brown and little windows pop open. The seeds sprinkle out like salt from a shaker as gum balls sway back and forth in the breeze. Each small seed has a single wing and spins as it falls.

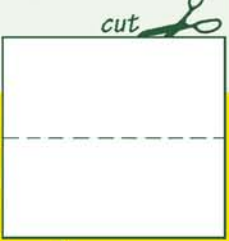


SEED CHALLENGE



Why do Plants produce so many seeds?

game pieces



seed folder

Directions

1. Cut out the seed holder and 5 seeds. You need a coin to flip. Heads - move 2 seed, tails - move 3 seed.
2. If you land on a dark cloud where a seed dies, you must discard a seed.
3. If you make it to a perfect spot and have at least one seed left to germinate, you have won the SEED CHALLENGE!



Make *FLYING SEEDS!*

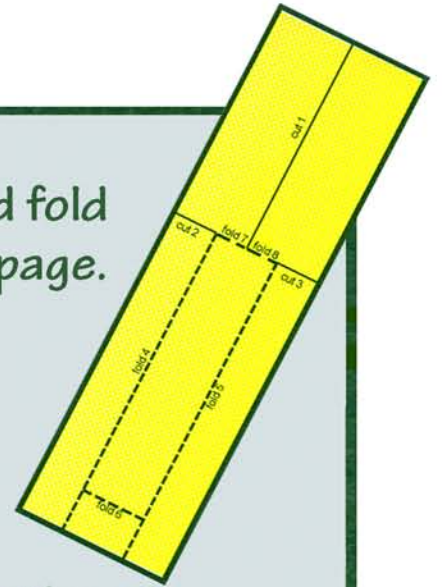


There are over 250,000 kinds of plants that have flowers. All of them produce seeds that must reach a suitable location before they can germinate.

Following these directions, cut out and fold all three seed models on the following page.

DIRECTIONS

1. Cut on the solid lines 1, 2 and 3.
2. Fold on dotted lines 4, 5 and 6.
3. Make folds 7 and 8 in opposite directions.
4. Hold your seeds up high and let them fly!



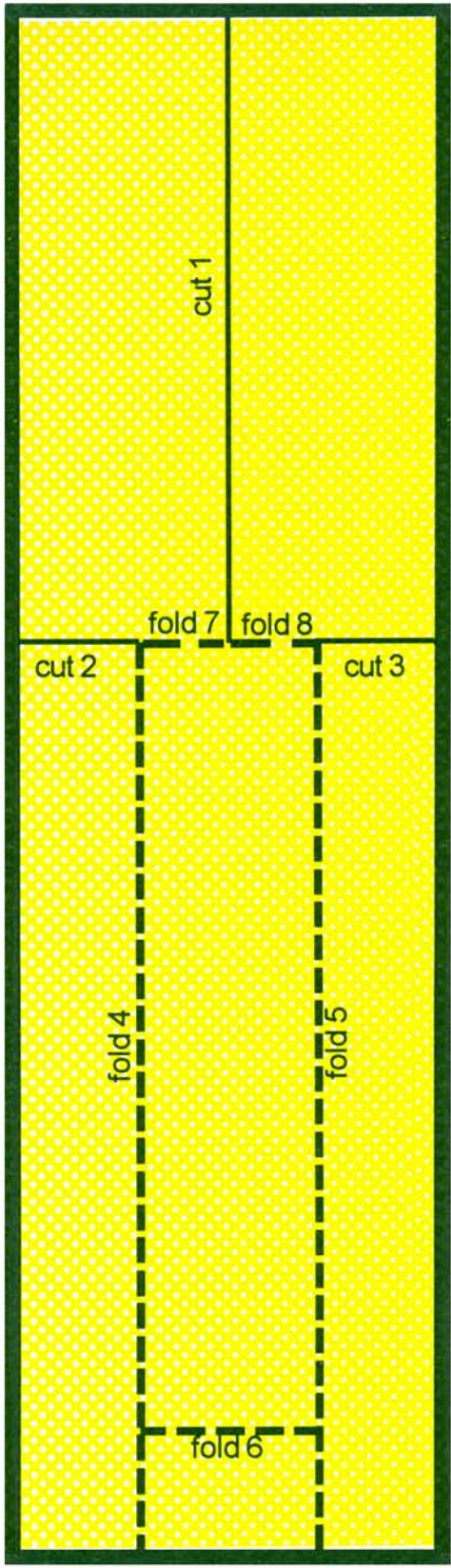
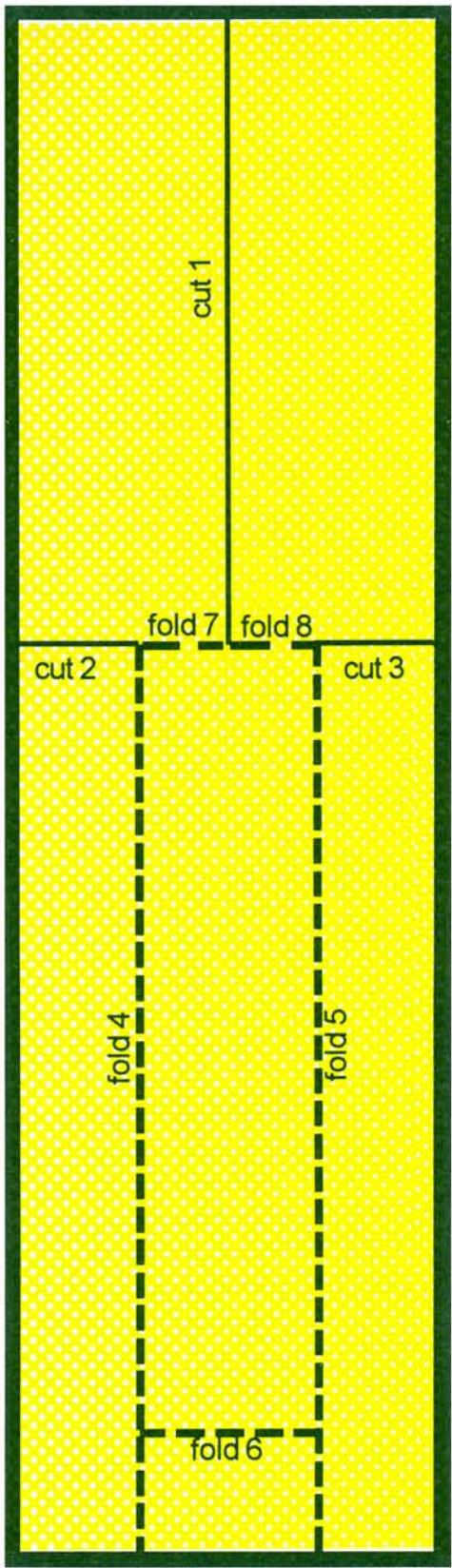
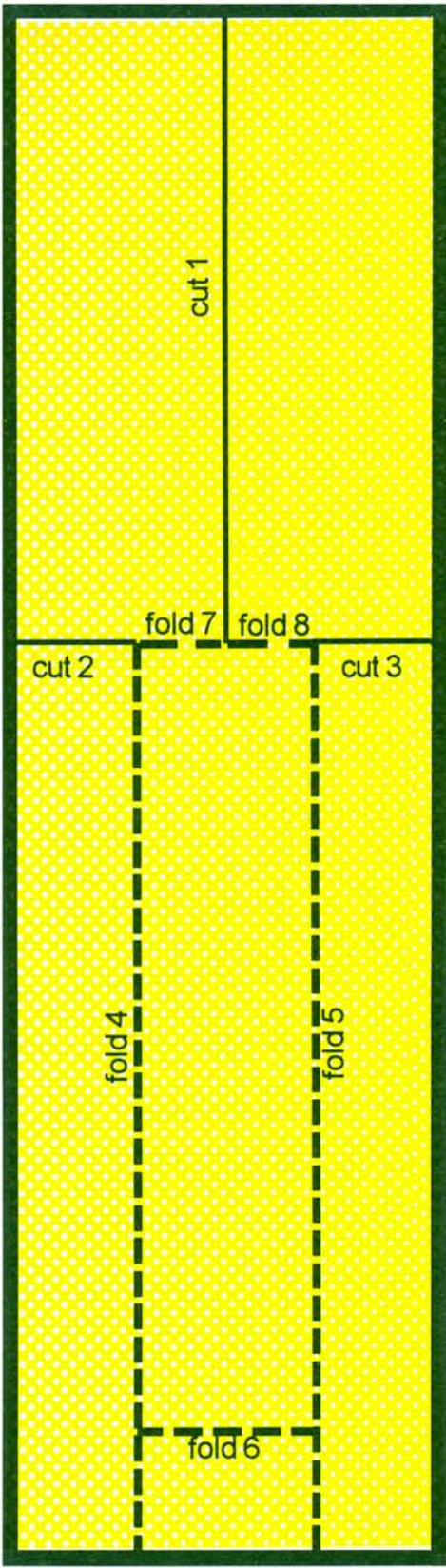
Experiment With Your Flying Seed Models.

Fly them during different wind conditions and measure how far your seeds travel. Can you make your seeds spin in the opposite direction?

Flying is just one way seeds travel. How many other ways can you name?



*Cut...Fold...
Fly your
seed models!*



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Just for US was written by Ginny Johnston with artwork by Judy Cutchins. Consultant on this issue, David Funderburk. Revised layout: 8/18/2010