

conservation **H**abits
= HEALTHY HABITATS



SAMPLE








Fuzzy Bodies Needed:

For Survival!


Most of the flowering plants we need AND enjoy are pollinated by insects. When these pollinating insects start shrinking in number many plants either produce less seed or no seed at all. When pollinating animals start disappearing – plants start disappearing. So, we need to protect pollinating insects right? **Right!** The problem is that a lot of time and money are spent every year trying to kill the most common pollinators...bees, flies and beetles.

Store shelves are overflowing with pesticides to rid us of these “annoying” insects.

Pollinators aren’t just annoying insects, they are an important part of the web of life that we all depend upon for our very survival! Over 80% of the world’s flowering plants wouldn’t survive if it weren’t for pollinators. Why do YOU



need those flowering plants? A lot of fruits and vegetables come from flowering plants, 25% of everything we eat and drink...**they need to be pollinated.** Even that glass of milk you had with breakfast or the juicy hamburger you ate for lunch depended on pollinators if they came from cattle raised on alfalfa! A lot of medicines come from flowering plants... **they need to be pollinated.** You couldn’t wear blue jeans without pollinators...cotton plants **need to be pollinated.**



Many animals and birds that are an important part of your ecosystem seek food and shelter in flowering plants...**they need to be pollinated!**



SAMPLE

How does pollination happen?

A hungry pollinator such as a bee, fly, beetle, butterfly or bat comes along looking for some sweet nectar or protein rich pollen (located in the anther). It lands on a flower and as it eats some of the pollen sticks to its fuzzy body. The pollinator decides to visit the next flower in the blossom buffet line and some of the pollen rubs off on the flower's stigma. Voila! We have pollination!

Pollinators are fast disappearing. Overuse of insecticides and damage to their habitats are the main causes. Lucky for us we can do something about it.

- Plant native plants that bloom at different times to provide a food source for a longer period.
- Supply a pesticide-free habitat for egg laying and nesting of pollinators.
- Provide an area which is sheltered and can remain undisturbed for several months for hibernation.

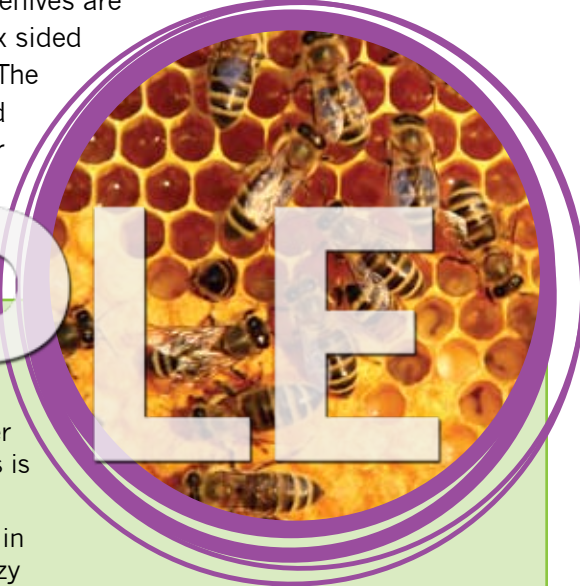
Did you know that most pollinators live for over a year but that only a few days or weeks of that life is as an active adult? Most of their lives are spent as a dormant pupae or in hibernation.

You don't have to have a lot of space. Any place you can plant at least a few plants will work. **Take action in your own backyard, school yard, city park or neighborhood!**

A Six Sided Cell For A Fuzzy Body



One of the most well known pollinators is the bee. There are over **4,000** species of bees in the United States. Some bees are very social and build their nests in hives. Beehives are made of beeswax and contain six sided cells in the shape of a hexagon. The bees use these cells to store food (including pollen) and to lay their eggs in. Follow the directions below to solve the puzzle in the beehive.



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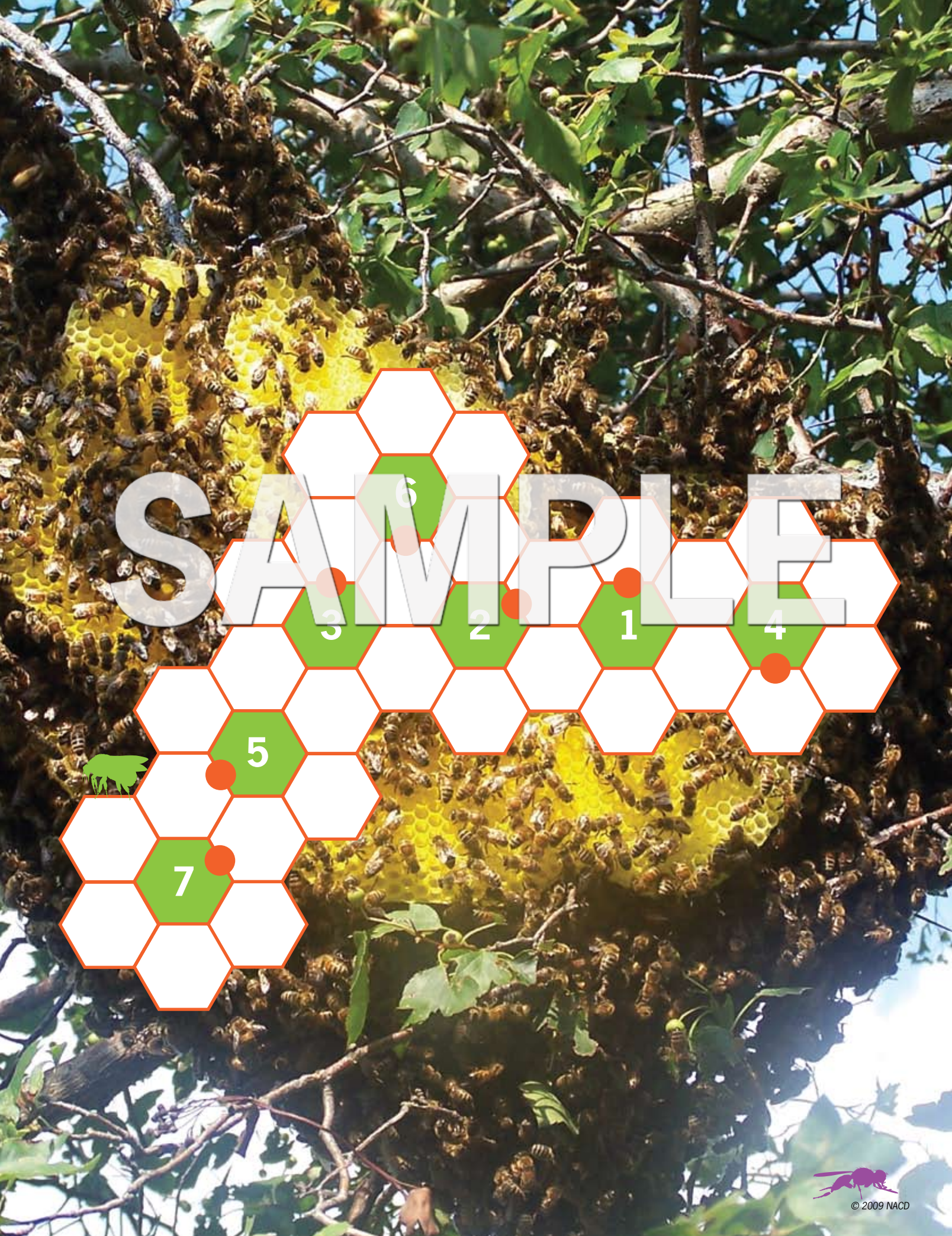
Directions:

- There are three six letter words listed with each number 1 through 7, one of the words is scrambled.
- All of the words can be found in the previous article about fuzzy bodies and survival.
- The two unscrambled words are hints to help solve the scrambled answer word. The answer fits into the puzzle so that all 7 words connect in the hive.
- Each word can be entered clockwise or counter-clockwise around its corresponding number.
- A dot is placed in every cell containing a number. This dot indicates the cell in which the first letter of the answer word should be placed.



- | | | |
|----------|--------|--------|
| 1 plants | flower | lenlop |
| 2 hungry | insect | recant |
| 3 supply | source | taiven |
| 4 habits | action | loscho |
| 5 laying | months | teavic |
| 6 beetle | stigma | tearnh |
| 7 fruits | cotton | leactt |





SAMPLE



Let It Rain... Barrels!



Conserve water...save money... do something good for your **HABITat**.... start collecting rain! You've heard the term "vintage" right? One of the habits you can change to improve your habitat is to water your garden and plants the vintage way – with a **rain barrel**. Experts say that 40% of the water used by a household during the summer months is in the yard and garden. You can collect water in a **rain barrel** and make a big difference in your own **habitat**. Rain water is fresh, its soft and its low in salt and chlorine. Your plants, your own water supply and local wildlife will all benefit. **How?** A **rain barrel** reduces runoff during heavy rains which helps prevent soil

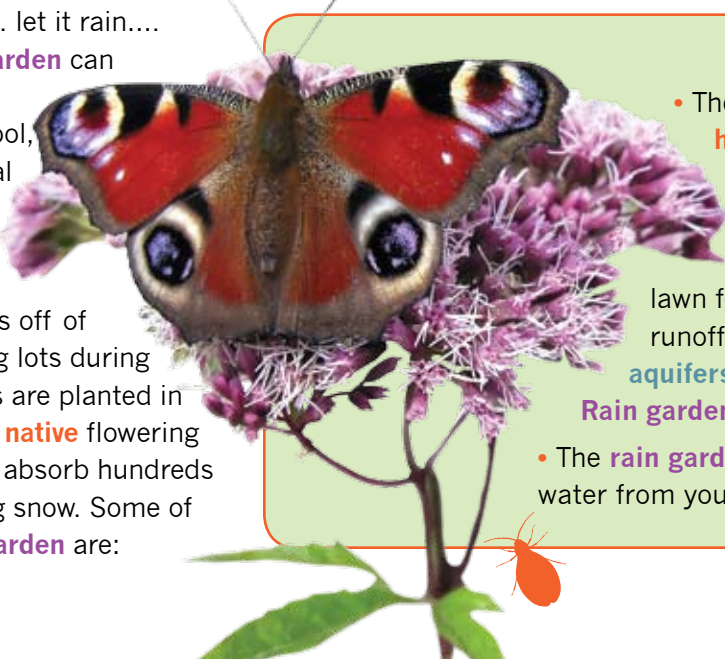
and other debris from entering storm drains, streams and rivers. Since you are **reusing** free **water** you save both money and **energy**, and last but not least the water is clean and fresh for gardens and **wildlife**.

A **rain barrel** is simply a barrel placed under the downspout of a gutter that catches **rain** as it runs off of a roof. This **free** and untreated **water** you collect **from** your roof is not only great for gardens and **wildlife**, it can be used to wash your car or water houseplants. For easy guidelines on setting up a **rain barrel** go to <http://nacdnet.org/education/resources/habitat/>.



Let It Rain... Gardens!

What we really mean is.... let it rain.... in the **rain** garden. A **rain garden** can be included in almost any landscape; at home, at school, in the town square, at a local park, any place that **plants** can grow and it **rains**. **Rain gardens** are used to help deal with the water that runs off of roofs, sidewalks and parking lots during a rain storm. These gardens are planted in shallow dips in the soil with **native** flowering plants and grasses and can absorb hundreds of gallons of rain or melting snow. Some of the BIG benefits of a **rain garden** are:



- The gardens create a beautiful **habitat** for birds, butterflies and other **wildlife**.
- The gardens filter pollutants, such as oil and lawn fertilizers, from storm water runoff before it seeps into our **wells, aquifers, rivers, lakes and streams**. **Rain gardens** protect our water quality!!!
- The **rain gardens** help remove standing water from your yard or any other landscape.





Do It Yourself

Rain Garden

A rope and shovel are all you need to get started on your own rain garden. Follow these simple steps and make a big improvement to your habitat!

1. Decide where you want to plant your rain garden. Keep these points in mind:
 - Try to find an area that slopes away from any nearby buildings.
 - Plant the garden at least 10 feet away from any buildings.
 - Do not plant the garden on top of a septic system or buried utility lines.
 - Make sure the garden will receive plenty of sunlight.

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2. Use the rope to outline the shape of your garden. Dig the garden 3 to 4 inches deep. Try to keep the bottom of the garden as level as possible.

3. Do some research on what types of perennial plants are native to your habitat. Native plants will thrive in your climate and your soils. Find both flood tolerant and drought tolerant species. Remember, this is a garden so focus more on flowers than grasses.

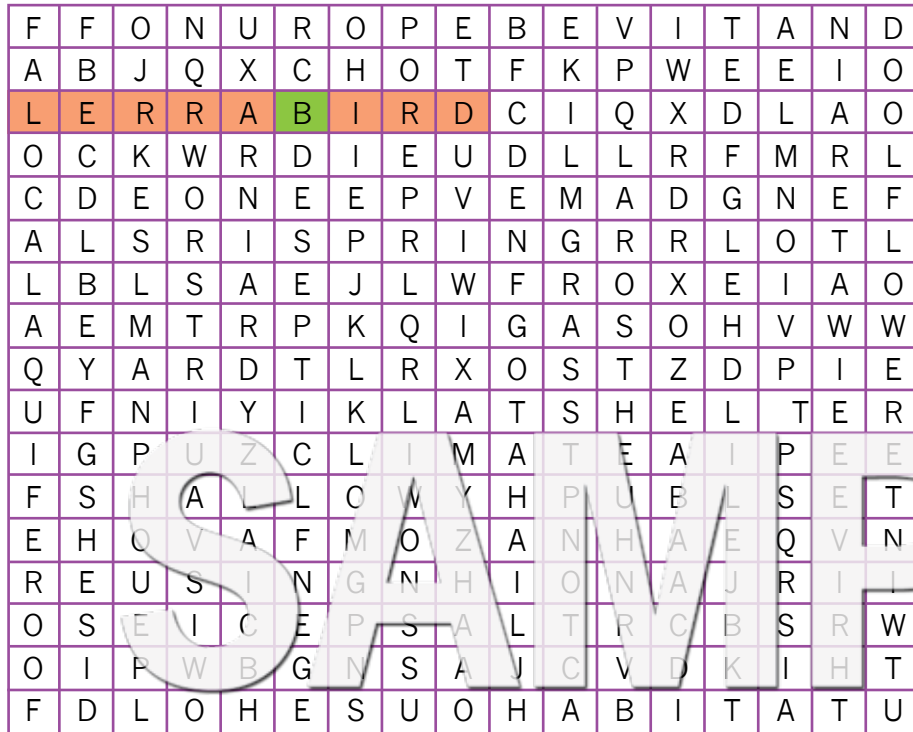
4. Start planting! Plant the flood tolerant plants in the middle of the garden. They will hold water from a few minutes to a few hours. They will not hold water long enough to breed mosquitoes. Plant the drought tolerant plants around the edge of the garden. Plant different species 12 to 18 inches apart in the garden.

5. Make sure the garden is well watered for the first few weeks until the plants become established.

6. Leave the dead or dormant plants in place over the winter. They will provide seeds and shelter for birds and other wildlife. In the spring cut back the old stalks so that new plant shoots can emerge.

Let It Rain... Words!

In this word search puzzle the first or last letter of each word will be the first or last letter of another word, sometimes more than one! The number of letters in each word is given in parentheses. These words can be found in the information on **Rain Barrels** and **Rain Gardens**. The first two words have been done for you.



- | | | |
|-------------------|-----------|-----------|
| BIRD (4) | _____ (6) | _____ (4) |
| BARREL (6) | _____ (7) | _____ (5) |
| _____ (5) | _____ (4) | _____ (6) |
| _____ (4) | _____ (6) | _____ (4) |
| _____ (7) | _____ (5) | _____ (5) |
| _____ (6) | _____ (6) | _____ (6) |
| _____ (5) | _____ (7) | _____ (6) |
| _____ (4) | _____ (8) | _____ (4) |
| _____ (6) | _____ (4) | _____ (7) |
| _____ (4) | _____ (5) | _____ (5) |
| _____ (5) | _____ (4) | _____ (7) |
| _____ (9) | _____ (5) | _____ (7) |
| _____ (6) | _____ (4) | _____ (8) |
| _____ (5) | _____ (7) | _____ (5) |

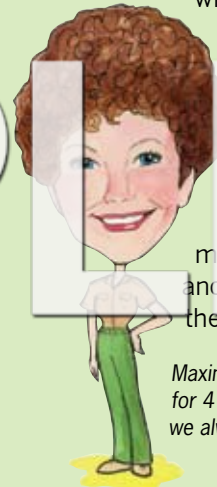
Ask Maxine

Q: What is an example of a food we wouldn't have without pollinators?

A: A warm apple pie either from grandma's kitchen or the drive up window at the local fast food restaurant.

If a flower on an apple tree doesn't get pollinated the flower withers and dies without growing into an apple. If you cut an apple in half horizontally you will see the seeds in the middle. If the flower got plenty of pollen the apple will have ten seeds. If

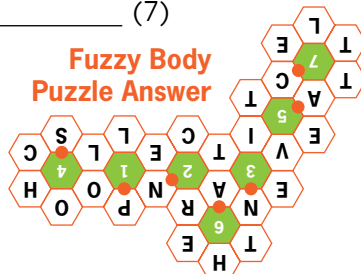
the flower only got partially pollinated there will be fewer seeds and the apple will be small and not shaped well. Remember, fewer seeds means fewer new plants and trees and FOOD in the future!



Maxine worked for NACD for 47 years. That's why we always ask Maxine.



Fuzzy Body Puzzle Answer



National Association of Conservation Districts (NACD)
www.nacdnet.org