# BEES & HONEY



Bees make honey from nectar which is a sweet liquid found inside flower blossoms. Worker bees collect the nectar and carry it to the colony in pouches within their bodies. One worker bee makes only 1/12 of a teaspoon of honey in its lifetime. A colony of bees, working together, may bring in as much as 50 pounds of nectar in a day and make 200 or 300 pounds of honey in a year. Bees pollinate flowers as they fly from one to another, gathering nectar. Pollen is sticky and clings to the honey bee's body, specifically the pollen basket. The pollen basket is located on the bee's hind legs and consists of hairs surrounding a concave structure. As a bee visits a flower, it grooms itself and brushes pollen sticking to its body toward its hind legs. At the next flower, the pollen will fall off. Honey bees are the only insects who produce food eaten by humans. Honey is the only food which doesn't spoil.



Honey is a supersaturated sugar solution with approximately 17.1 percent water. Honey also contains small amounts of protein, enzymes, vitamins, and minerals. Each variety of honey has characteristics which make it unique. Some of the main characteristics are color, granulation, and moisture content. Honey color is always graded with a number. A low number indicates a light color and the higher the number, the darker the honey. Granulation is also given a number value to rate at which point the honey tends to crystallize or granulate. Honey is sold as raw when it contains all the pollen, enzymes, and other micronutrients which are usually filtered out when the honey is processed. Traditionally, honey is heated and filtered so it will remain liquid much longer.



Bees live in groups called colonies. A colony can have tens of thousands of bees. The value of honey bee pollination to US agriculture is more than \$14 billion annually. Farmers contract with migratory beekeepers, who move millions of bee hives to fields each year just as crops flower.





Honey speeds the healing of open wounds and also combats infections. As early as the First World War, honey was being mixed with cod liver oil to dress wounds in the battlefield.

# Honey Peanut Butter Cheerio Bars

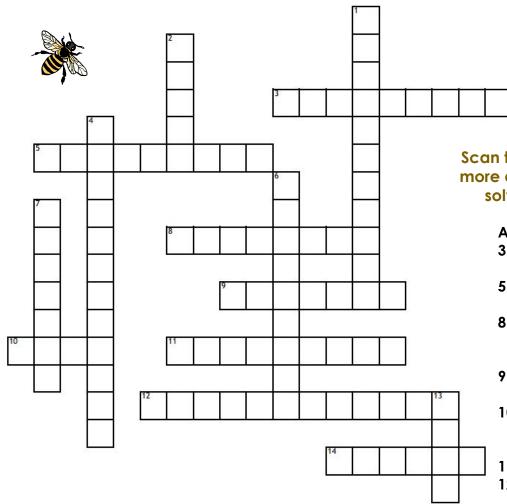
½ cup honey
¾ cup peanut butter
3 cups Cheerios



Line 8"×8" pan with aluminum foil and set aside. Cook honey and peanut butter over medium heat, stirring until completely melted and blended. Remove from heat and stir in cereal. Mix until evenly coated. Place mixture in prepared pan and press in place.

Refrigerate for 1 hour before cutting into bars. Cut into preferred size and enjoy!







### Scan the QR code to learn more about bees and help solve the crossword!



#### Across

- 3. Have a thick lens that can sense changes in brightness
- 5. A straw-like tongue used to suck nectar or honey
- 8. provides a function for a bee's sense of touch, smell, taste and even a unique form of hearing
- 9. Barbed and has an attached venom pouch; used for defense
- 10. Used for walking, dusting antennae, brushing pollen off body hairs, and storing pollen
- 11. Glands that form and excrete wax
- 12. A stomach-like organ used to store nectar
- **14.** The middle region of the bee that contains the flight muscles, 4 wings, and 6 legs

# Mixed Berry Roll-ups

### **INGREDIENTS**

1 cup - strawberries, diced

1 cup - blueberries

1 cup - raspberries

1/3 cup - honey

1 T - orange peel, grated

4 10-inch - flour tortillas

1/4 cup - light cream cheese

### DIRECTIONS

In medium mixing bowl, place berries; gently stir in honey and orange peel.

Arrange tortillas on work surface.

Spread 1 T cream cheese evenly over one side of each tortilla. Spoon about 3/4 cup honey fruit mixture down center of each tortilla. Fold in ends, and then roll, starting at one side, to form a burrito-like roll. Yields 4 servings. Enjoy!



#### Down

- 1. Made up of thousands of tiny lenses that allow the bee to see ultraviolet light and visible light with the exception of red
- 2. Beat 250 times per second allowing the bee to fly
- 4. A collection of hairs where pollen is stored for transport
- 6. Jaw-like structures used to knead wax and chew honey and pollen
- 7. The rear region of the bee that contains organs for digestion, reproduction, and respiration as well as the stinger and wax glands.
- 13. The front region of the bee that contains 2 compound eyes, 3 simple eyes, 2 antennae, mandibles, and the proboscis

