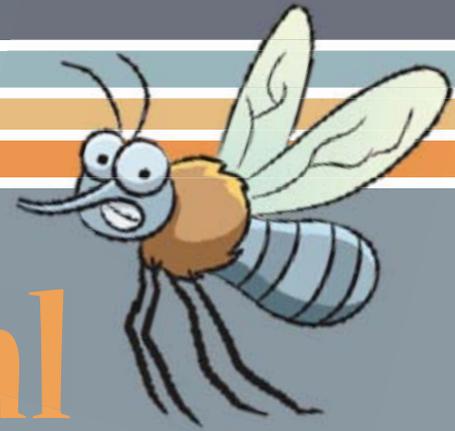
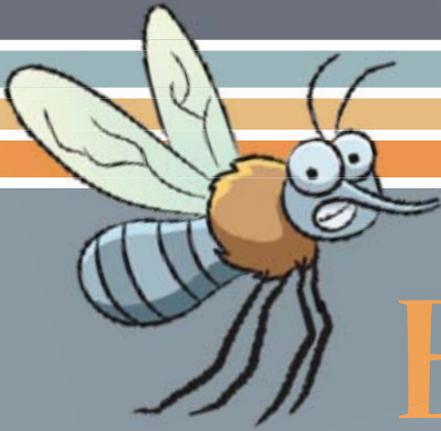


Protect yourself against

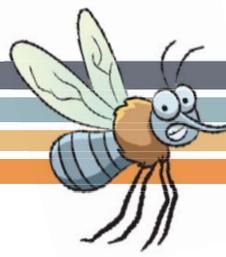
West Nile Virus



Educational Activity Book



NORTH DAKOTA
DEPARTMENT of HEALTH

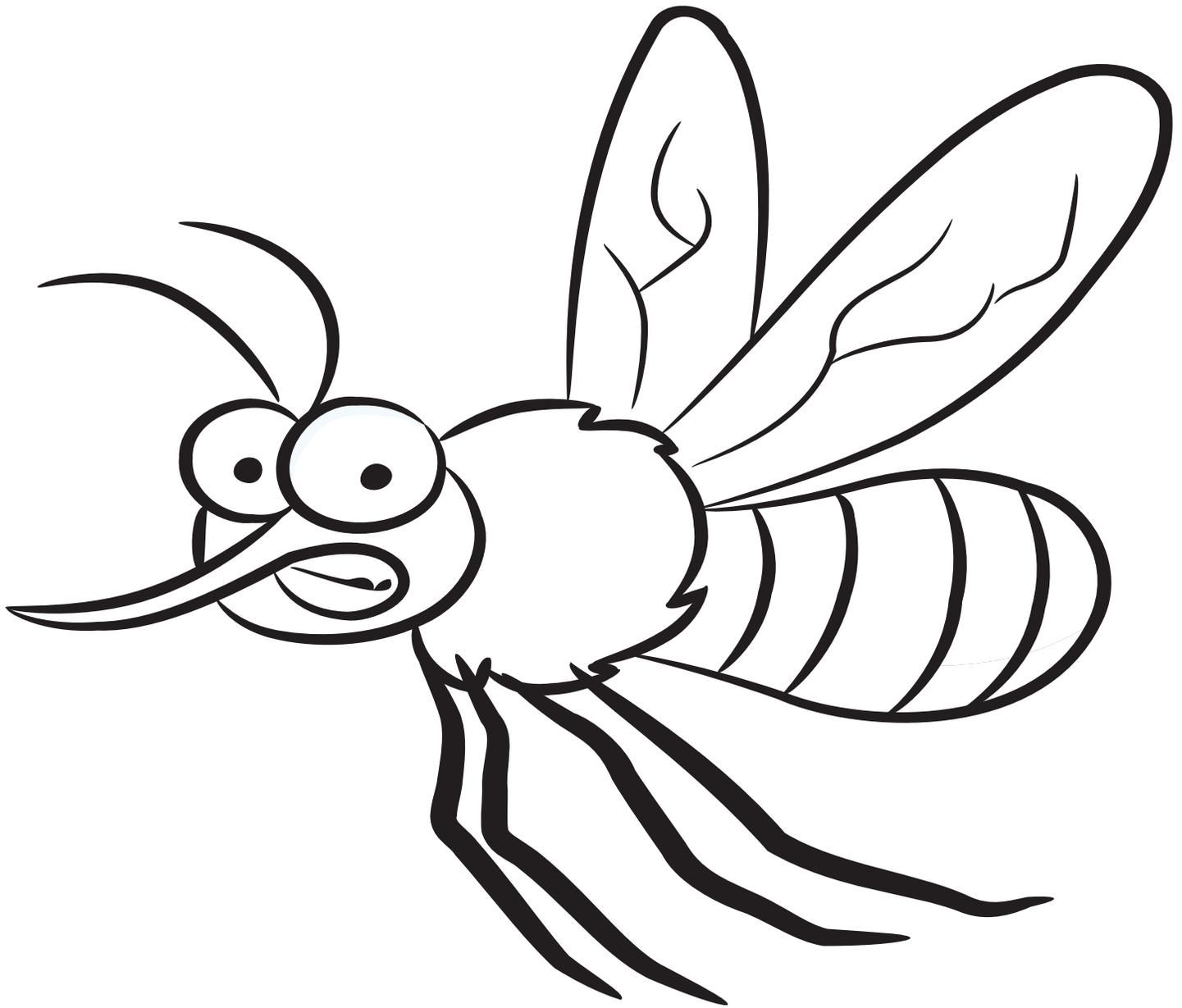


The purpose of this activity book is to help teach children about the disease West Nile virus (WNV), and how they can protect themselves, families and friends from WNV by preventing mosquito bites and reducing mosquito breeding around the home and play areas.

The following tips can help prevent West Nile virus:

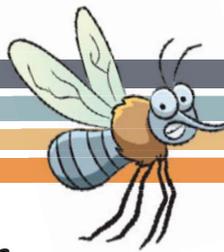
- Use an insect repellent containing DEET, picaridin, IR3535, oil of lemon eucalyptus (PMD) or permethrin on clothes and/or exposed skin when outdoors. Always follow the directions on the label.
- Stay indoors during the evening and early morning hours when mosquitoes are most active.
- Wear light-colored, long pants and long-sleeved shirts.
- Install or repair screens on windows and doors.
- Empty standing water from buckets, birdbaths, wading pools, troughs and potted-plant drip trays every four to five days.

The North Dakota Department of Health thanks you for taking the time to complete this activity book.



This is Marcy Mosquito.
She is hungry!

Marcy needs to bite in order to get blood.
She needs blood so she can make eggs.

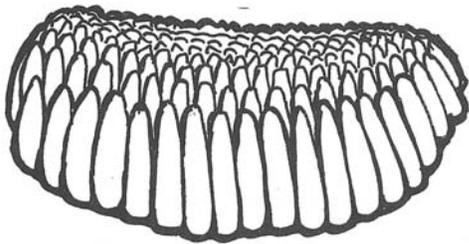


Mosquitoes grow in four stages.

First are eggs, then the larva (sometimes called wriggler), then the pupa (also called the tumbler) and then the adult mosquito.

Color the pictures below to learn how mosquitoes grow.

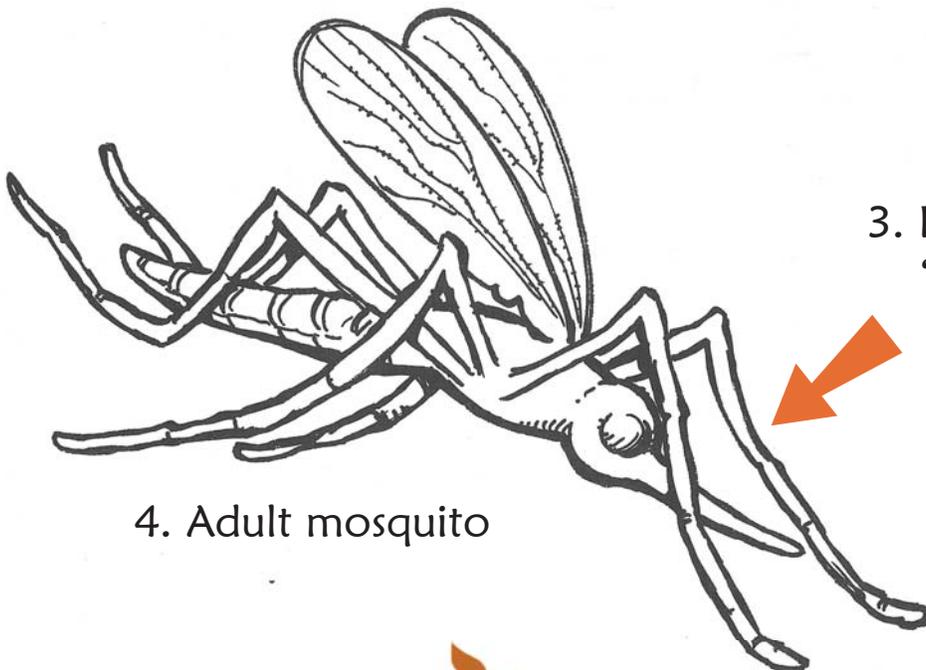
1. Mosquito eggs



2. Larva
"wiggler"



3. Pupa
"tumbler"



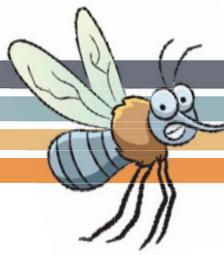
4. Adult mosquito



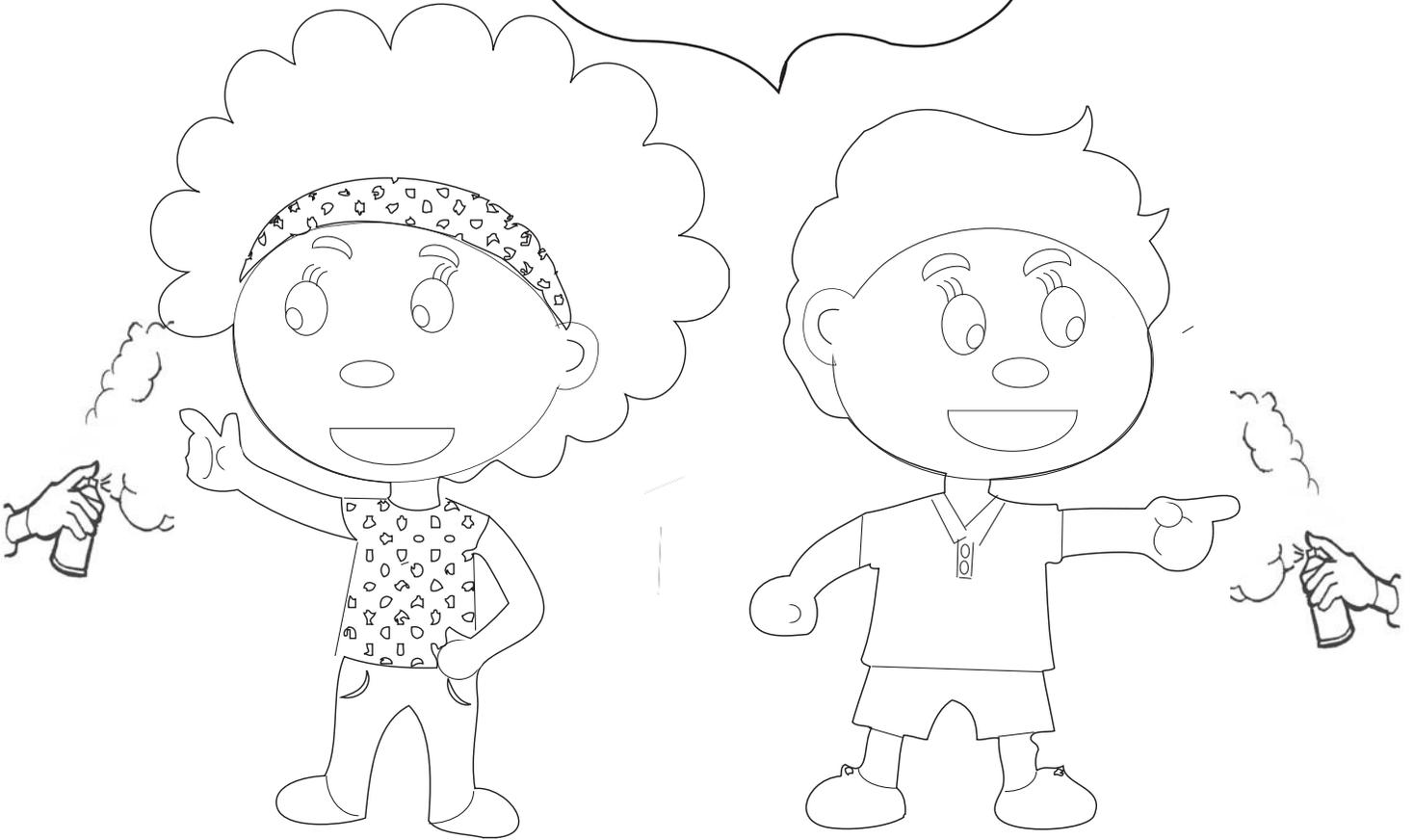
Mosquitoes grow in water.

Circle and **color** the things that can hold water.





Stay Away You
Pesky
Mosquitoes!!



You can protect yourself by letting your parents
or teacher apply DEET on you and your clothes.
Mosquitoes don't like DEET.





Using the list of words below, find and circle each word in the puzzle. Words can be forward, backward, up, down or diagonal.

Mosquito -- an insect.

Rain gutter -- a place where mosquitoes can live.

Pupa -- third stage of the mosquito's life cycle.

Water -- needed for mosquitoes to grow.

Larva -- second stage of the mosquito's life cycle.

Wings -- mosquitoes have one pair of these.

Bite -- something that female mosquitoes do.

Blood -- needed for female mosquitoes to lay eggs.

Pond -- a place where mosquitoes can live.

Goldfish -- a fish that eats mosquitoes.

Dragonfly -- an insect that eats mosquitoes.

Wiggler -- another name for mosquito larvae.

Tires -- mosquitoes can live in these.

Nectar -- food for mosquitoes.

West Nile -- a virus transmitted by mosquitoes.

Insect -- a mosquito is one of these.

Environment -- mosquitoes provide helpful and harmful things to it.

Diseases -- these are transmitted by mosquitoes.

Tumbler -- another term for mosquito pupa.

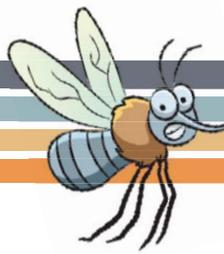
Containers -- places holding water where mosquitoes live.

Egg -- first stage of the mosquito's life cycle.

Swamp -- a place where mosquitoes live; has lots of water.



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Mosquito Smarts Word Scramble

See if you can unscramble these words about mosquitoes!

1. Mosquitoes grow in _____.

ARTEW

--	--	--	--	--

2. Another name for mosquito larvae.

RGIWRLGE

--	--	--	--	--	--	--	--

3. Female mosquitoes bite in order to feed on _____.

OBODL

--	--	--	--	--

4. Mosquitoes have one pair of _____.

GSINW

--	--	--	--	--

5. These are spread by mosquitoes.

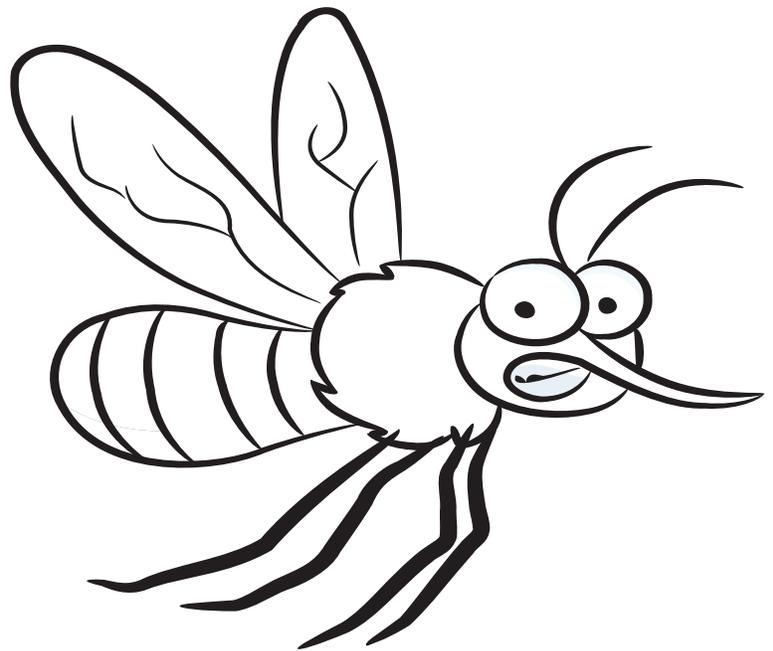
SEISDASE

--	--	--	--	--	--	--	--

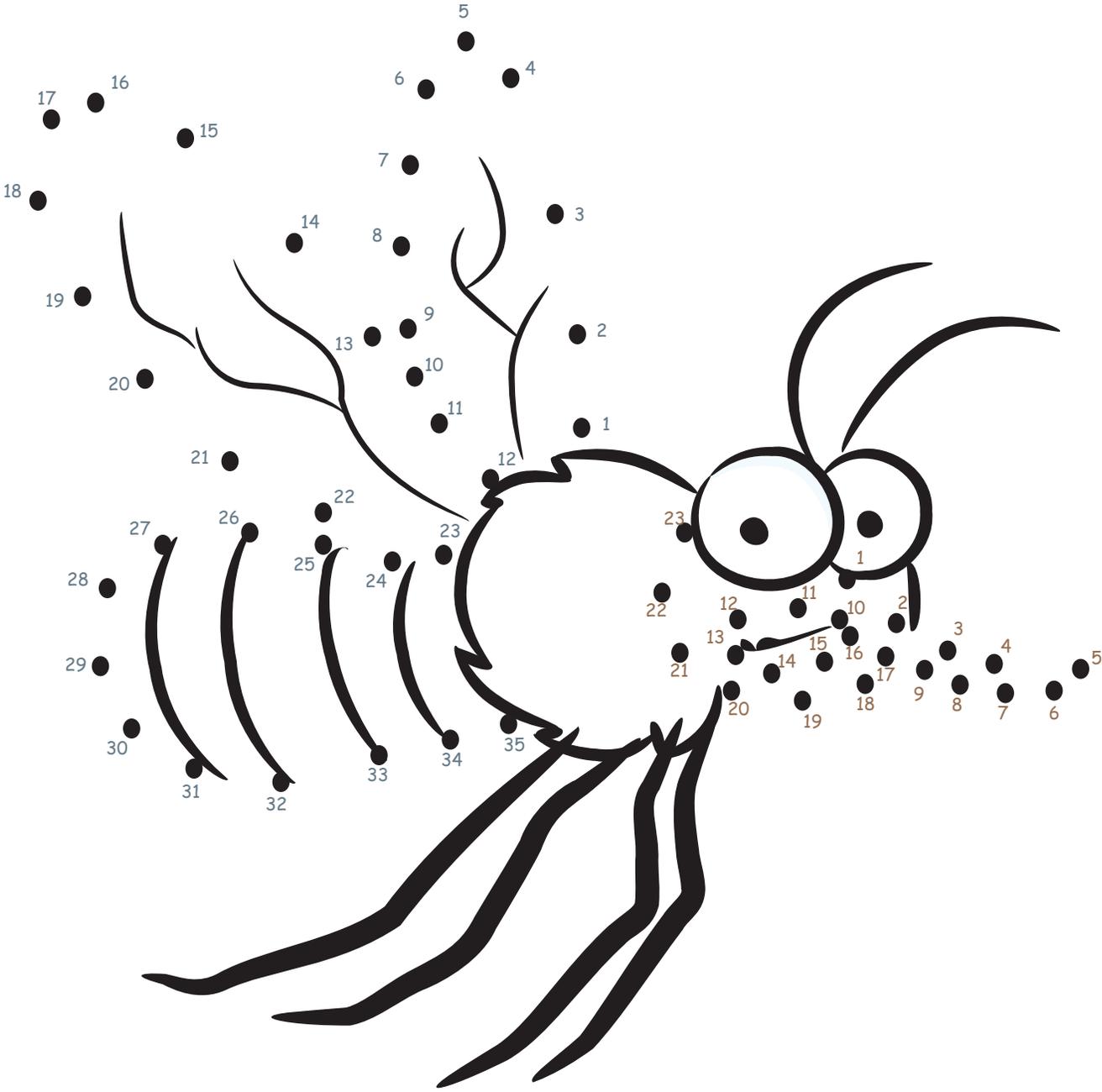
6. Mosquitoes begin their lives as _____.

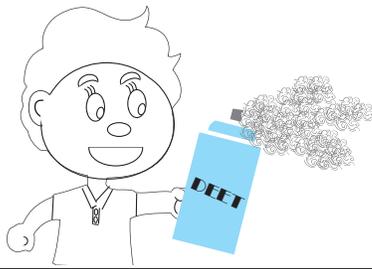
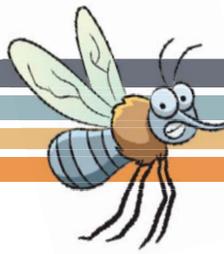
GESG

--	--	--	--

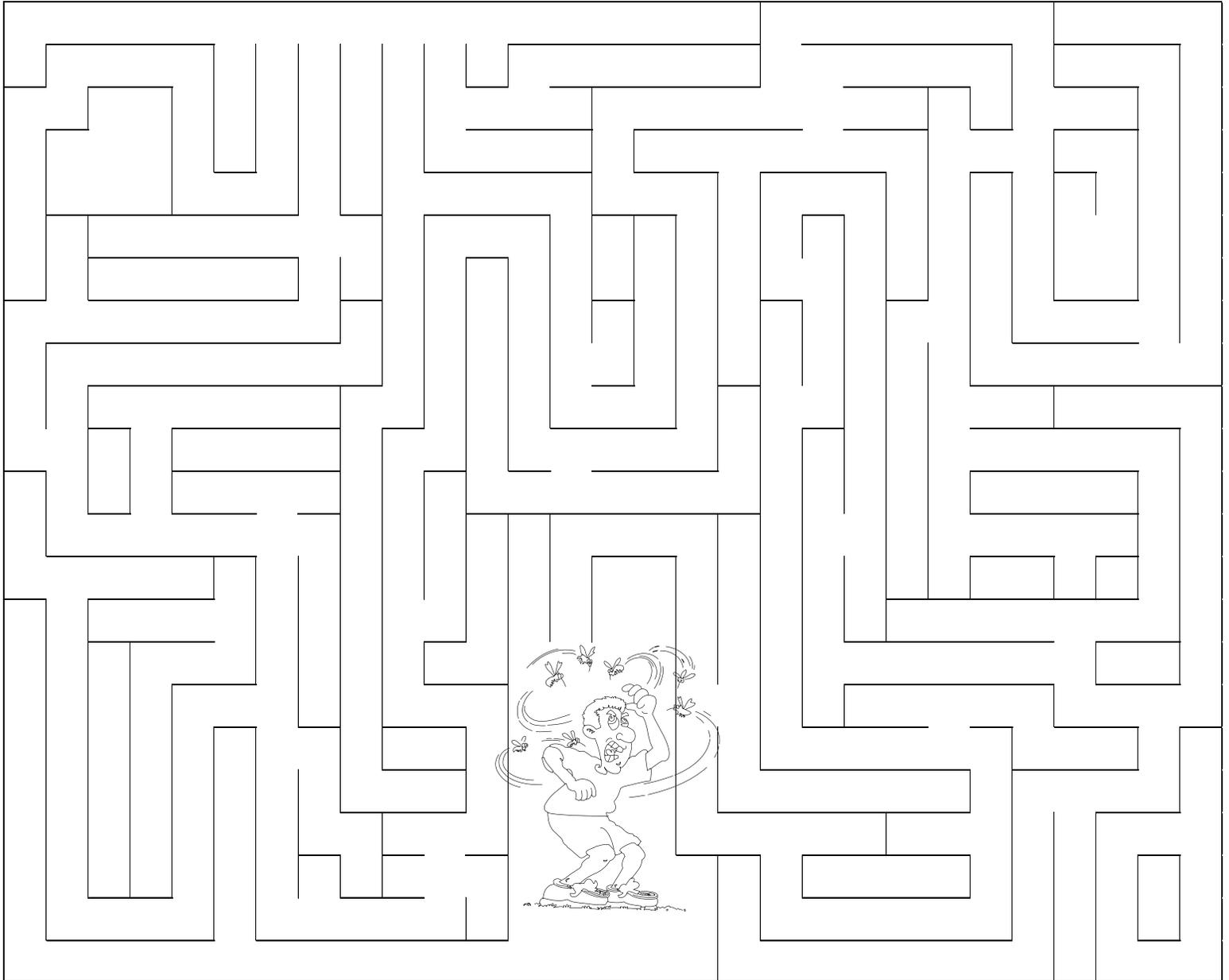


Connect the dots to find out what bug carries West Nile virus.





Help me through the maze.

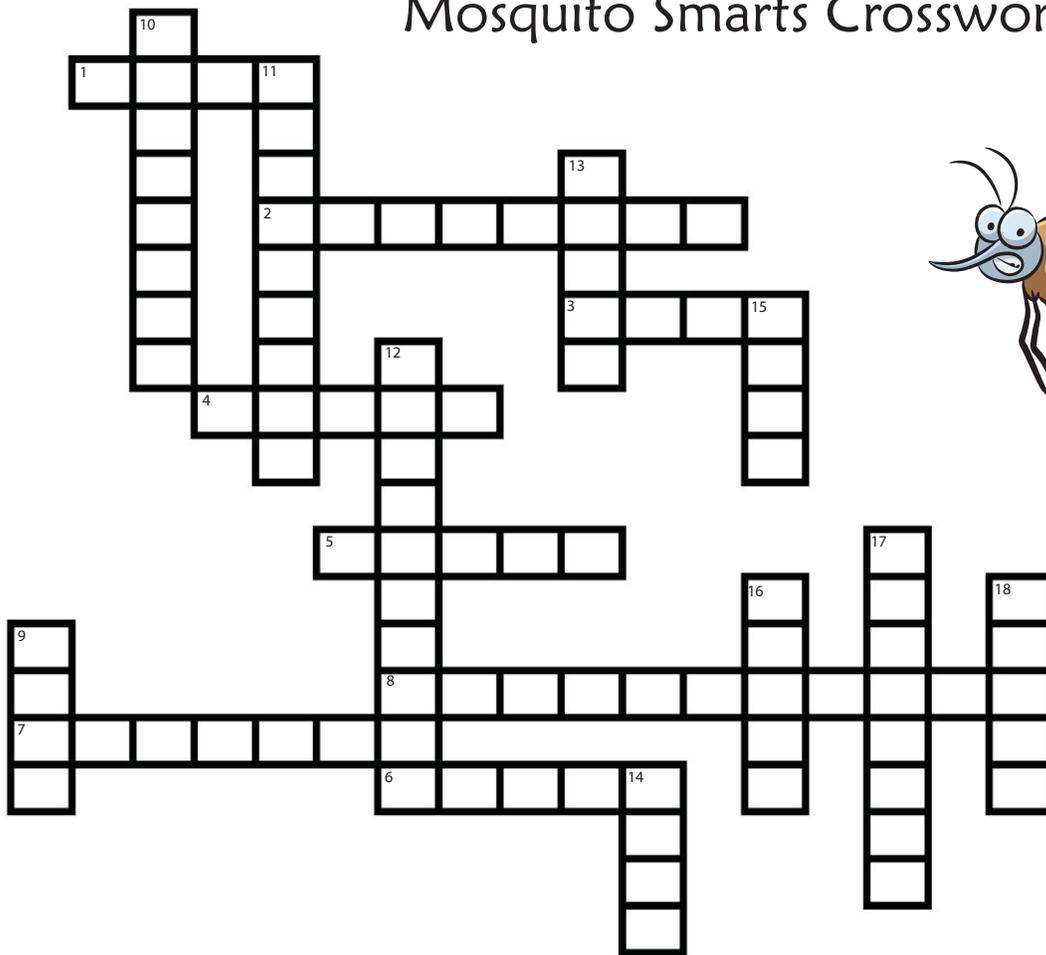
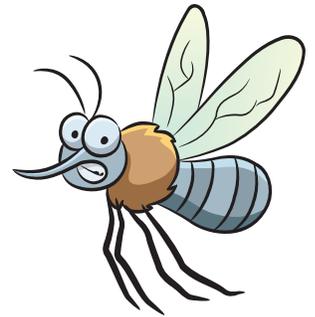


I need to get through the maze so I can spray my friend with DEET so the mosquitoes will leave him alone. Can you get me through the maze to help my friend?



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Mosquito Smarts Crossword Puzzle



Across Clues:

1. A small body of water where mosquitoes live.
2. A type of fish that eats mosquitoes.
3. _____ are laid so that new mosquitoes can hatch.
4. Female mosquitoes need to feed on this in order to lay eggs.
5. The second stage of the mosquito life cycle.
6. A wetland area where mosquitoes live.
7. Another name for a mosquito pupa.
8. Mosquitoes are harmful and helpful to the _____.

Down Clues:

9. Female mosquitoes do this in order to get blood to feed their eggs.
10. A type of insect that lives near water, can bite people and animals, and transmits diseases to humans.
11. A large insect that eats mosquitoes.
12. Mosquitoes can live and breed inside _____ such as buckets, cans, pots, etc.
13. Sometimes used as swings, scrap _____ are a perfect home for mosquitoes.
14. The third stage of a mosquito life cycle.
15. DEET should be washed from the skin with _____ and water.
16. Mosquitoes have one pair of _____.
17. _____ are spread by mosquitoes.
18. Mosquitoes lay their eggs on top of _____.

Word Bank: Soap, Mosquito, Pond, Water, Dragonfly, Eggs, Tumbler, Diseases, Bite, Pupa, Blood, Swamp, Containers, Goldfish, Wings, Environment, Larva, Tires



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I am looking for mosquitoes. Marcy Mosquito can be found hiding in this picture 12 times. Sometimes she is big, sometimes she is small, and sometimes she is even upside down.



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Can you spot the differences?

Picture 1



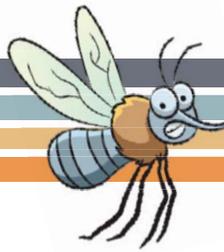
Picture 2



Playing outside and keeping active is still a good idea during the summer; you just need to protect yourself from mosquito bites.

Picture 1 is the original and Picture 2 has 12 mistakes. Can you find all of the differences?





Mosquito Smarts Home Patrol Checklist

These are some places you might find mosquitoes or mosquito larvae. With a parent or teacher, check around your yard, school or play area for the items on the list below.

Check the boxes as you go.

	We found these things:	Number found:	We checked for water and emptied these:	We did not find any of these things:
Tires				
Toys				
Rain barrels				
Wheelbarrows				
Flower pots				
Boats/boat covers				
Plastic covers				
Swimming pools				
Buckets				
Plants				
Cans and jars				
Birdbaths				
Tree holes				
Rain buckets				
Pet dishes				

Did you find mosquitoes in any other places that aren't on the list?

FOR MORE INFORMATION ABOUT WEST NILE VIRUS

Contact your local public health unit
or call the North Dakota Department of Health at 800.472.2180.

Acknowledgement:

The concept and some materials for this educational activity book were adapted with permission from the South Dakota State University Cooperative Extension Service.



ADDITIONAL INFORMATION ABOUT WEST NILE VIRUS CAN BE FOUND AT:

North Dakota Department of Health - West Nile virus website

www.ndhealth.gov/wnv

Centers for Disease Control and Prevention - West Nile virus website

www.cdc.gov/westnile

United States Geological Survey (USGS) - West Nile virus maps

diseasemaps.usgs.gov/wnv_us_human



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