Sammy Skunk and the ZOO-Crew

A Vector-Borne and Zoonotic Diseases Activity Book
Sammy Skunk and the ZOO-Crew

2017

A product of Arizona Department of Health Services

Illustrations were retrieved from resources as listed.
Hi there! My name is Sammy Skunk and I want to introduce you to the ZOO-Crew! Can you match the descriptions of my friends with their animal names?

**MOSQUITO**

**DEER FLY**

**TICK**

**FOX**

**WILD MOUSE**

**BAT**

**MATTY** is a small rodent with rounded ears and a long hairless tail.

**FRANKIE** is known to be very sneaky. Her fur is red or gray with a white belly.

**BARRY** is black in color and likes to fly in the sky at night.

**CARRIE** and **ANNIE** bite day and night. They leave very itchy bite marks on the skin.

**DAWN** has a black body, long clear wings, and large bright green eyes.

**DAISY** looks like a spider and swells up like a grey bubble after a very good blood meal.
Unscramble the letters to discover what **ZOONOTIC** and other important words mean! Use the definitions and word bank for help.

<table>
<thead>
<tr>
<th>Unscrambled Word</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ (ozoicnto dseiaes)</td>
<td>A disease that can spread from animals to people.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ (ctsine)</td>
<td>Small animals that have 6 legs and three body sections. Examples: ants, mosquitoes.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ (smger)</td>
<td>Tiny living things that can cause disease.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ (etvroc)</td>
<td>An animal or insect that can spread germs and diseases from person to person. For example, a mosquito is the vector that can spread Zika virus.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ (tsoh)</td>
<td>A human or animal in which germs live and grow.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ (mistnasrsnoi)</td>
<td>This word describes how a disease can spread to a human and make them sick.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ (pystmmso)</td>
<td>Bad feelings and signs from your body that tell you that you are sick.</td>
</tr>
<tr>
<td>___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ ___ (ctsine lelpetnar)</td>
<td>A spray or cream used on the body to keep insects from biting your skin.</td>
</tr>
</tbody>
</table>

**Word Bank**

<table>
<thead>
<tr>
<th></th>
<th>germs</th>
<th>insects</th>
<th>symptoms</th>
<th>zoonotic disease</th>
</tr>
</thead>
<tbody>
<tr>
<td>host</td>
<td>vector</td>
<td>transmission</td>
<td>insect repellent</td>
<td></td>
</tr>
</tbody>
</table>
Did you know that **zoonotic diseases** can make people really sick? We have **Public Health Heroes** who work to keep people safe and free of disease. Public Health Heroes also protect animals and the environment.

*Help the Public Health Heroes save the world! Decode the secret message and share it with a friend!*

Public health is the promotion and protection of human health.

**SECRET ONE HEALTH MESSAGE:**

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**A C D E F H I J L M N O Q R S T U V Y**
Human health is connected to animal health and environmental health.
Animal health is connected to human health and environmental health.
Environmental health is connected to human health and animal health.

Wow! What a mouthful!

Make sense of this word jumble by completing the One Health picture.
Draw arrows from each picture to what the statement says it’s connected to.

Hint: after drawing your arrows, the pictures should be connected in the shape of a triangle.
BE A
ONE HEALTH CHAMPION!

How many pictures can you find in the One Health image?

Write the name of each picture you find in this box!

HUMAN HEALTH + ANIMAL HEALTH + ENVIRONMENTAL HEALTH = ONE HEALTH
The ZOO-Crew forgot what a zoonotic disease is!
Can YOU help them remember?

A ZOONOTIC DISEASE IS:
A ___________ that can spread from ______________ to ____________.

Can you find the animal that appears three times?
Circle the answers!

Whew! That was close! Now the ZOO-Crew can tell you all about Arizona zoonotic diseases and how to prevent them.

http://www.supercoloring.com
Did you know that wild mice have bad germs in their poo?

Tiny droppings can mean BIG danger;
Especially when small pieces of poop, urine, and germs get into the air.

Do you know what disease humans can get from breathing in these germs?

Complete the puzzle to learn the name of this dangerous disease.
Find the letters that match each rectangle and write them on the lines.
Even healthy looking wild rodents can carry bad germs. Connect the dots to find two mice in the picture. Can you tell if they are sick?

A person cannot spread Hantavirus to another person. You can only get this zoonotic disease from breathing in germs from droppings.
Matty Mouse says, "Stay away!!"

I can be very dangerous for humans. My droppings & urine can give you a bad disease if you breathe them in.

There are lots of things to do to protect yourself. Can you find the two caution signs that are incorrect?

Color the correct signs green and the wrong signs red.

CAUTION
AVOID CONTACT WITH WILD MICE

TOUCH WILD RODENTS

STAY AWAY FROM WILD MOUSE DROPPINGS

WILD MOUSE URINE STAY AWAY

WILD MOUSE NEST...
KEEP OUT

Wear a mask & gloves when cleaning rodent waste

DO NOT touch people sick with HANTAVIRUS
Mosquito Life Cycle

Eggs are laid in still water.

Eggs hatch into larvae and live in the water.

Larvae turn into pupae while in the water.

Pupae turn into adult mosquitoes.

Label each step in the mosquito life cycle with a 1, 2, 3, or 4.

& Disease Spread

A mosquito bites someone infected with the virus.

The mosquito becomes infected and continues to spread the virus.

The mosquito infected with the virus bites healthy people and the cycle continues.
Did you know that not all mosquitoes are the same?

Some mosquitoes can cause Zika Virus, Chikungunya, and Dengue. These mosquitoes are called **Aedes mosquitoes**.

Other mosquitoes can cause West Nile Virus and St. Louis Encephalitis. These mosquitoes are called **Culex mosquitoes**.
QUICK! Mosquitoes like to live near water. They also hide in tall grass, old tires, and even bottle caps!

Can you find 11 mosquitoes hidden in the picture?
Prevent mosquitoes in and around your home! Read the sticky notes to learn how.

Even a bottle cap can breed mosquitoes! Toss, cover, or empty and scrub any item that can hold water.

Old tires, buckets, and bird baths make great hiding places. Look for mosquitoes there too!

Be mosquito free!

A spray a day keeps mosquitoes away! Use insect repellent to prevent bites.

Make mosquitoes BUZZ OFF! Use screens on your windows & doors.

Prevent mosquito bites to protect yourself!

Got mosquitoes? Eliminate water around your house!

Hop to the doc RIGHT AWAY if you feel sick!
It's me again! With another disease I can spread... **PLAGUE**.

My wild rabbit friend is also here with information about **TULAREMIA**, a disease that he can spread.

Complete the crossword puzzle to learn how Plague and Tularemia are spread from animals to humans.

**ACROSS**—Guess the words below. Use the numbers to show you where to write the competed words in the boxes that go across.

2. C____ are pets that can spread plague to humans by bringing infected fleas home.
6. There are _ ___e types of plague.
7. Packrats, prairie dogs, and rodents are _ ___ _ _ _ _ s and hosts for plague.

**HINTS**
- Cats
- Fleas
- Host
- Humans
- Rodents
- Three
- Vector

**DOWN**—Guess the words below. Use the numbers to show you where to write the competed words in the boxes that go across.

1. Plague and tularemia are germs that live and grows in a h____.
3. A _ ____ o _ spreads diseases from animals to humans through a bite.
4. _ _ m _ _ _ can get tularemia from handling infected rabbits.
5. _ ____s are tiny insects and the vector for plague.
Fleas bite animals to get a blood meal. They move on to bite humans if there are no animals around to feed on.

Color in the Arizona animals that can spread plague. Circle the animal that can spread tularemia!

- Rat
- Chipmunk
- Squirrel
- Wild Mouse
- Rabbit

Protecting yourself is easy as 1...2...3!

1. **Protect your home from wild animals!** Remove possible food sources and shelter from around your home.

2. **Treat your pets for fleas!** Keep pets and homes free of fleas by applying flea control.

3. **Wear gloves AND repellant!** Do not touch wild rodents nor wild rabbits; and wear repellant during outdoor activities.
Do you know what a flea looks like?

Grab a pencil and follow the directions to draw your very own flea one square at a time! Use the letters and numbers to help you find the correct squares.

DIRECTIONS

☐ Draw square B7 in square B3.
☐ Draw all of the squares from row 8 in row 4.
☐ Draw square D5 and E5 in squares D1 and E1.
☐ Draw square C5 in square C1.
☐ Draw squares D6 and D7 in squares D2 and D3.
☐ Draw the remaining squares from row 7 in row 3.
☐ Draw square B5 in square B1.
☐ Draw square E6 in square E2 to complete the picture!
Which animal is most known to spread rabies?

Complete the color by number to find the answer!

1 = Black  
2 = Yellow  
3 = Brown  
4 = Grey
Other animals can spread rabies too. Wild skunks, foxes, and coyotes, who knew? Keep yourself safe by staying away. Wild animals may bite if you try to play.

Can you find all 25 words? Circle each one!
(Hint: the words can be forward, backward, vertical, or diagonal)

AGGRESSIVE
ANIMALS
AVOID
BAT
BITE
BOBCAT
CAREFUL
CAT
CONTROL
COYOTE

DANGER
DOG
FOX
HORSE
JAVELINA
LEASH
PET
RABIES
SALIVA
SICK
SKUNK
VACCINATE
VETERINARIAN
VIRUS
WILD
SIGNS THAT AN ANIMAL MAY HAVE RABIES:

STRANGE BEHAVIOR

- Paralyzed
- Weak
- Stressed
- Aggressive

Bats on the ground, unable to fly
Night animals active during the day
Aggressive
Staggers while walking

Wild animal does not run when you approach it

REMEMBER TO KEEP YOUR PETS RABIES FREE
Use a leash when walking your pets and vaccinate your cats and dogs!
DO NOT touch bats. Even sick or hurt bats on the ground can be dangerous. 

DO NOT approach or touch wild animals. 

DO NOT leave pet food outside. It can attract wild animals to your yard. 

DO NOT “rescue” young wild animals. They can still be dangerous even if they look hurt.

Can you figure out the secret message? Read about how to protect yourself from rabies. Then write the letters with a triangle or circle in order in the spaces below.

PREVENT BITES!

IF YOU’VE BEEN BITTEN...

Ask an adult to help you follow these steps:

WASH bite wounds with soap and water. 

NOTIFY local animal control to capture the animal for rabies testing. 

REPORT bites to the health department. 

VISIT the doctor for medical care and rabies treatment.

Dltk coloring pages
I’m Daisy the **Brown Dog Tick** and I LOOOOVE drinking the blood of dogs for my meals! Kind of like how mosquitoes love people.

Sometimes I am infected with bacteria and when I feed on dogs, I pass the disease to them. I can even bite people and spread the disease to them too!

This disease is called **Rocky Mountain Spotted Fever**. Most people call it **RMSF** for short.
Got bit by a **TICK**?

**RMSF** is a very dangerous disease.

**SCARY RIGHT??!**

It’s important to know **where to look** for tick bites and to know the **symptoms** to look for after a bite.

Ticks are very good at hiding. **Can you name the parts of the human body where ticks are most likely to bite?** Write your answers on the lines.
Dog got ticks?
Check your pet to find out!

- In & around the ears
- Behind the armpits
- Between the toes
- On the chest

Don’t worry...
Removing ticks is EASY!

If you find ticks on a human or a pet, remove them right away.
TO REMOVE TICKS:

Grab a pair of gloves and tweezers and follow the steps below.

1. Wear gloves and use tweezers to remove the tick.

2. Grab the tick as close to the skin as you can.

3. Gently pull straight up until all parts of the tick are removed (be careful not to squish the body of the tick).

4. Wash the bite with soap and water. Watch for symptoms and go to the doctor if you begin to feel sick.

Remember to wear repellant when hiking or camping to prevent tick bites!
Can you guess the number 1 way to prevent zoonotic diseases?

Sammy Skunk and the ZOO-Crew say...

Use insect repellant
Stay away from animals you don’t know
Vaccinate your pets
Keep your pets safe from tick bites
Visit a doctor RIGHT AWAY when you feel sick

And most importantly...

(Hint: Use the picture to figure out the phrase).
See you next time!
ANSWERS

PAGE 1:

Zoonotic disease
Insect
Germs
Vector
Host
Transmission
Symptoms
Insect repellant

PAGE 2:

PAGE 3:

The health of humans, animals, and the environment are all connected.

PAGE 4:

PAGE 5:

water drop
ca wearing/Saguaro
tree/tear
cow
dog
rabbit
hands/hand washing

PAGE 6:

A zoonotic disease is a disease that can spread from animals to humans.

PAGE 7:

HANTAVIRUS

PAGE 8:

No, we cannot tell if the mice are sick simply by looking at them.

PAGE 9:

Y means yellow sign; R means red sign.

PAGE 10:

PAGE 11:

PAGE 12:

PAGE 13:

PAGE 14:

CATS
THREE
HUMANS
RODENTS
C
A
T
S
V
H
F
U
L
E
A
R
O
D
E
N
T
S
PAGE 15:

**Bats**

- Rabbit
- Squirrel
- Chipmunk
- Wild Mouse
- Bat

**PAGE 16:**

**Fleas**

**PAGE 17:**

- Bats

**Colors:**

- Sky = black, moon/stars = yellow, bat body = brown, wings = gray

**PAGE 18:**

**Word Search**

Do not feed wild animals!

**PAGE 20:**

**Hair and Hairline**

- Under the arms
- Knees (in back)
- Waist
- Legs (in between)

**PAGE 22:**

Wash your hands!
Want to learn more about Zoonotic Diseases?

There are many websites with cool information and fun facts!

Visit these sites on the internet. Ask an adult if you need help:

- https://www.cdc.gov/onehealth/basics/zoonotic-diseases.html
- https://www.cdc.gov/about/facts/cdcfastfacts/zoonotic.html
Zoonotic Diseases

Hantavirus (p 7-9)
Mosquito-borne: Chikungunya, Dengue, Zika Virus, St. Louis Encephalitis, & West Nile Virus (p 10-13)
Plague (p 14-16)
Rabies (p 17-20)
Rocky Mountain Spotted Fever (p 21-24)
Tularemia (p 14-16)

Animals & Vectors

Bat (p 1, 17-20)
Brown dog tick (p 1, 21-24)
Dogs (p 18 & 21-24)
Fox (p 1, 18-20)
Mosquito (p 1, 10-13)
Rodents (p 1, 7-9, 14-15)
Skunk (p 1, 20-23, 26)

Definitions and Concepts

Intro to Zoonotic Diseases & Definitions (p 1-3 & 6)
One Health (p 3-5)
Hand washing & General Prevention (p 25)