3rd Grade

A panther chameleon in Indonesia snags a dragonfly with its powerful, sticky tongue.

Watch a video

Gotcha!

How chameleons use super-sticky mucus to snatch their prey

A dragonfly buzzes through the air, stopping to rest on a branch. All of a sudden, SPLAT! A chameleon snatches the bug with its long, sticky tongue.

Chameleons are some of nature's most effective predators. Their tongues unfurl at lightning speed and can stretch twice the length of their bodies to help them capture insects, other lizards, and even small birds to eat.

Pascal Damman, a physicist at the University of Mons in Belgium, knew scientists had studied how a chameleon's tongue moves. But Damman was interested in another question: Does **mucus**, a slimy substance in a chameleon's spit, also help it catch its prey? Damman and his team set up an experiment to find out.

Spit Collector

A chameleon's tongue can grab an animal that weighs up to one-third of the chameleon's body weight. But the tongue doesn't wrap around its prey, so how does it grip these supersized meals? Damman suspected the answer had to do with the spit on the end of a chameleon's tongue. "When you touch the tip of their tongue with your finger, you can feel how sticky it is," he says.

To study the spit, Damman first had to collect it. He and his team placed a chameleon in a tank with a cricket. A glass slide separated the predator from its **prey**. When the chameleon attacked, its tongue smacked the glass, leaving its spit behind.

Slime Test

Next Damman measured how sticky the spit was. He had to work quickly so the water in the spit wouldn't **evaporate**, or turn to gas. That would change the properties of the mucus— and the results of the test.

Seconds after the chameleon struck, Damman's team grabbed the mucus-covered slide. They immediately held it at an angle and rolled a small steel ball down the glass, using slow-motion cameras to measure how fast the ball moved. The stickier the mucus, the more it would slow the ball down.

Damman repeated the experiment several times. He calculated that chameleon spit is about 400 times stickier than human spit. The mucus, he concluded, plays a big role in snagging the chameleon's prey.

But spit isn't the only factor, says Damman. The cameras also showed that the tip of the chameleon's tongue spreads out when it hits its prey. Damman suspects this makes it even harder to escape the predator's grasp.

—Maggie Mead

Investigate It!

Think about how the scientist in the article designed his experiment. Use that information to answer the questions below.

1 Why did Pascal Damman suspect that mucus helps chameleons catch prey?

2 How did Damman collect the chameleon's mucus and test its stickiness?

3 Why did Damman need to test the mucus immediately?

4 What conclusion did Damman reach? Was his initial suspicion correct?

MAIN IDEA & DETAILS

MAIN IDEA

Main Idea:

*Use text evidence to fill in the three detail boxes

DETAIL ↗   ↑ **DETAIL** ↑   ↖ **DETAIL**

Name:

Use the shapes provided to answer the questions.

Ex) How many groups of 6 can you make with the 18 shapes below?

1) How many groups of 6 can you make with the 18 shapes below?

Ex. _____ **3**

1. _____

2. _____

2) How many groups of 5 can you make with the 25 shapes below?

3) How many groups of 2 can you make with the 8 shapes below?

3. _____

4. _____

5. _____

4) How many groups of 2 can you make with the 16 shapes below?

5) How many groups of 5 can you make with the 35 shapes below?

6. _____

7. _____

8. _____

6) How many groups of 3 can you make with the 39 shapes below?

7) How many groups of 7 can you make with the 14 shapes below?

9. _____

10. _____

11. _____

8) How many groups of 7 can you make with the 28 shapes below?

9) How many groups of 4 can you make with the 40 shapes below?

10) How many groups of 7 can you make with the 35 shapes below?

11) How many groups of 3 can you make with the 18 shapes below?

Math

www.CommonCoreSheets.com

1

1-10	91	82	73	64	55	45	36	27	18	9
11	0									

1. Solve.

$7 \times 6 =$ _____

$7 \times 60 =$ _____

$7 \times 600 =$ _____

_____ $= 8 \times 6$

_____ $= 8 \times 60$

_____ $= 8 \times 600$

2. Share $2.70 equally among 3 people.

Each person gets $_____.

Share $9 equally among 4 people.

Each person gets $_____.

3. 30 is 10 times as much as

_____.

500 is _____ times as much as 5.

_____ is 100 times as much as 80.

40,000 is 1,000 times as much

as _____.

4. 6 coats. 4 buttons per coat. How many buttons in all?

Write a number model.

_____

Answer: _____ buttons

5. Draw a 4-by-7 array of Xs.

How many Xs in all? _____

Write a number model.

_____

SRB
64 65

6. 18 books. 6 books per shelf.

How many shelves? _____

How many books left over? _____

4 children share 13 marbles. How many marbles per child?

_____

How many marbles left over?

_____

Bill Nye Bones and Muscles

1. What do bones and muscles work together to do?

2. When your muscles are getting shorter by pushing or pulling, they are _____.

3. What helps to hold bones together?

4. Muscles help _____the bones

5. What anchors the muscles to the bones?

6. How many bones are in the human body?

7. How many muscles are in the body?

8. What is the main job of the joints throughout the body?

9. What are the 3 parts to a bone?

10. What is an example of something that helps keep bones strong?

Owl Pellet Observations

Part 1: The Owl Pellet

1. Describe the characteristics of the owl pellet (size, shape, color, and texture).

2. Draw a picture of the owl pellet

Part 2: Inside the Owl Pellet

1. Describe what you found inside the owl pellet

Part 3: The Bones in the Owl Pellet

Look carefully at the bones from the owl pellet. Compare them with human bones.

1. Find a bone that is similar to a human bone. Draw it and explain how it is similar.

2. Find a bone that is different from a human bone. Draw it and explain how it is different.

3rd Grade

A Recipe For A Great Friendship

From the kitchen of _____

_____

_____

_____

_____

_____

Self-Esteem Journal

MON.	Something I did well today…	
	Today I had fun when…	
	I felt proud when…	
TUE.	Today I accomplished…	
	I had a positive experience with…	
	Something I did for someone…	
WED.	I felt good about myself when…	
	I was proud of someone else…	
	Today was interesting because…	
THUR.	I felt proud when…	
	A positive thing I witnessed…	
	Today I accomplished…	
FRI.	Something I did well today…	
	I had a positive experience with (a person, place, or thing)…	
	I was proud of someone when…	
SAT.	Today I had fun when…	
	Something I did for someone…	
	I felt good about myself when…	
SUN.	A positive thing I witnessed…	
	Today was interesting because…	
	I felt proud when…	