BLIZZARD BAG

DAY #2

5TH Grade Blizzard Bags

Day #2-

Science, Reading and Writing- Read the article, Passenger pigeons have died out, but scientists may try to make new ones. Answer the questions 1-4 on a separate piece of paper.

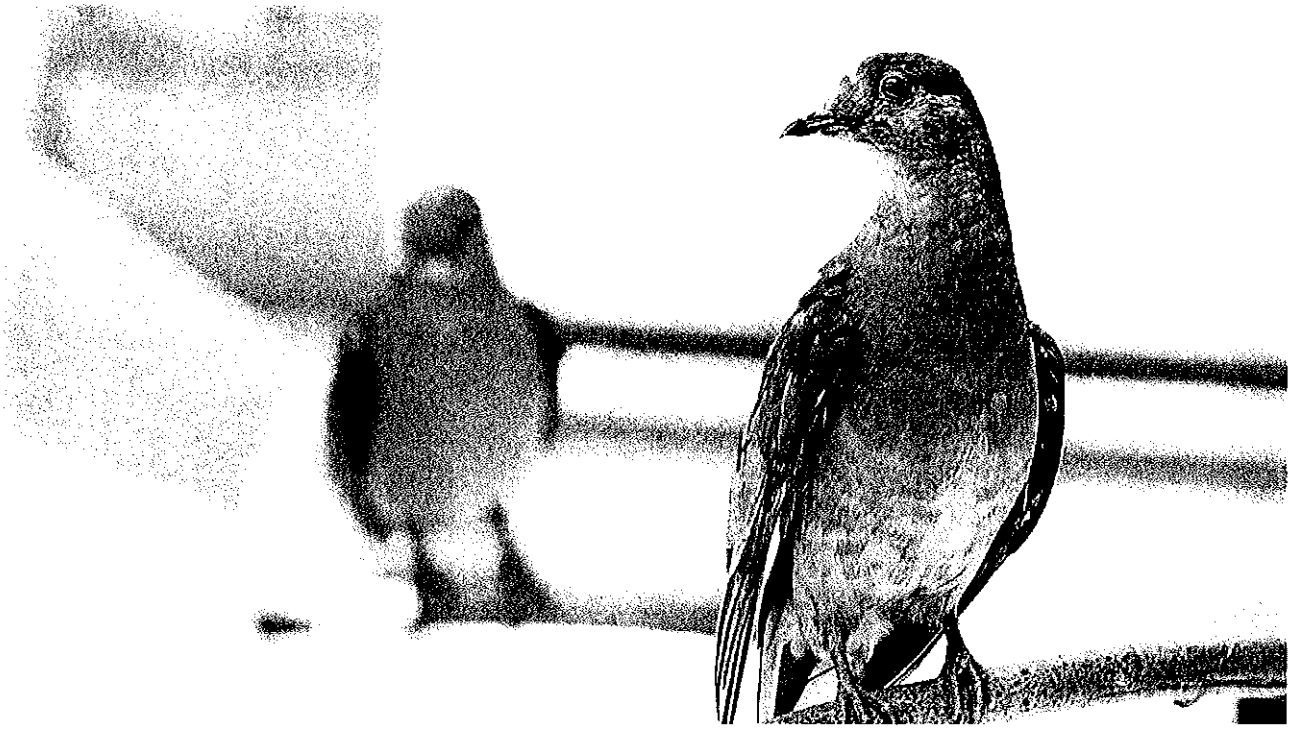
Math- Complete 5.G.1 worksheets 85, 86 and 87.

Read silently for 20 minutes

Passenger pigeons have died out, but scientists may try to make new ones

By Scientific American, adapted by Newsela staff

Sep. 11, 2014 1:00 AM



This photo shows Martha (right), an extinct passenger pigeon, at the Smithsonian's Natural History Museum in Washington, D.C. Once the most plentiful bird on the planet, the passenger pigeon became extinct in September 1914 when Martha died at the Cincinnati Zoo.

One hundred years ago, the last passenger pigeon died. Her name was Martha, and she lived alone in a cage in the Cincinnati Zoo.

There used to be more than 3 billion passenger pigeons in the world. After Martha died, there were zero.

Passenger pigeons had gone extinct. There were no more of that species, that kind of animal.

There have been no passenger pigeons since 1914. Maybe that can change now. Some scientists are trying to bring back the passenger pigeon.

The bodies of dead animals still hold something called DNA, even if the animals have been dead for a long time.

DNA is a set of instructions on how to make a particular animal. DNA forms genes, which control how an animal is made—will it have wings or arms, blue feathers or red hair or brown fur?

Something Called De-Extinction

If an animal's genes could be recreated, maybe a long-lost species could be brought back to life.

That's the idea behind something called de-extinction.

It works like this: take DNA information from an extinct animal like Martha. Combine it with the DNA from a closely related species, another type of pigeon.

Then, try to grow a baby bird in an egg from the living pigeon.

If all goes well, a copy of the long-lost Martha could hatch. One new bird would lead to another, and another. One day, large flocks of passenger pigeons might be seen flying in the skies.

Ben Novak is a scientist working on de-extinction, bringing back lost animal species. His goal is to bring back the passenger pigeon.

Novak is studying genes taken from dead passenger pigeons. At the same time, he is studying the genes of a related bird: the band-tailed pigeon.

"Sequencing A Genome"

So far, 32 passenger pigeon samples have been studied. These birds have had their genomes sequenced. A "genome" is the complete set of genes found in a certain animal. "Sequencing" means figuring out the order of the genome's parts.

Sequencing the genome allows scientists to figure out which genes make a passenger pigeon a passenger pigeon.

The samples Novak is studying will also help him figure out something else: how the bird lived in the wild. Understanding that will help him decide if a restored passenger pigeon would do well in today's woods.

What Novak has learned so far is encouraging. Nothing is telling him to "turn back now and not bring back the passenger pigeon."

If the de-extinction works, there would still be one remaining challenge: Teaching the new birds how to be passenger pigeons. Doing that could be very difficult. The new birds would be part band-tailed pigeon. They would have no passenger pigeon parents to teach them. It would be up to humans to show them what to do.

Still, if everything goes well, Martha may no longer be the last of her kind. Ten years from now, passenger pigeons could be flapping around once again.

Quiz

1. All of the following sentences show that passenger pigeons have become extinct EXCEPT:
   (a) One hundred years ago, the last passenger pigeon died.
   (b) There used to be more than 3 billion passenger pigeons in the world.
   (c) After Martha died, there were zero.
   (d) There have been no passenger pigeons since 1914.

2. What does Ben Novak do?
   (a) He is a scientist who studies DNA.
   (b) He is a scientist who studies birds.
   (c) He is a scientist who specializes in genome sequencing.
   (d) He is a scientist who is working to bring back extinct species.

3. Select the paragraph from the first section of the article that describes the role of DNA in an animal.

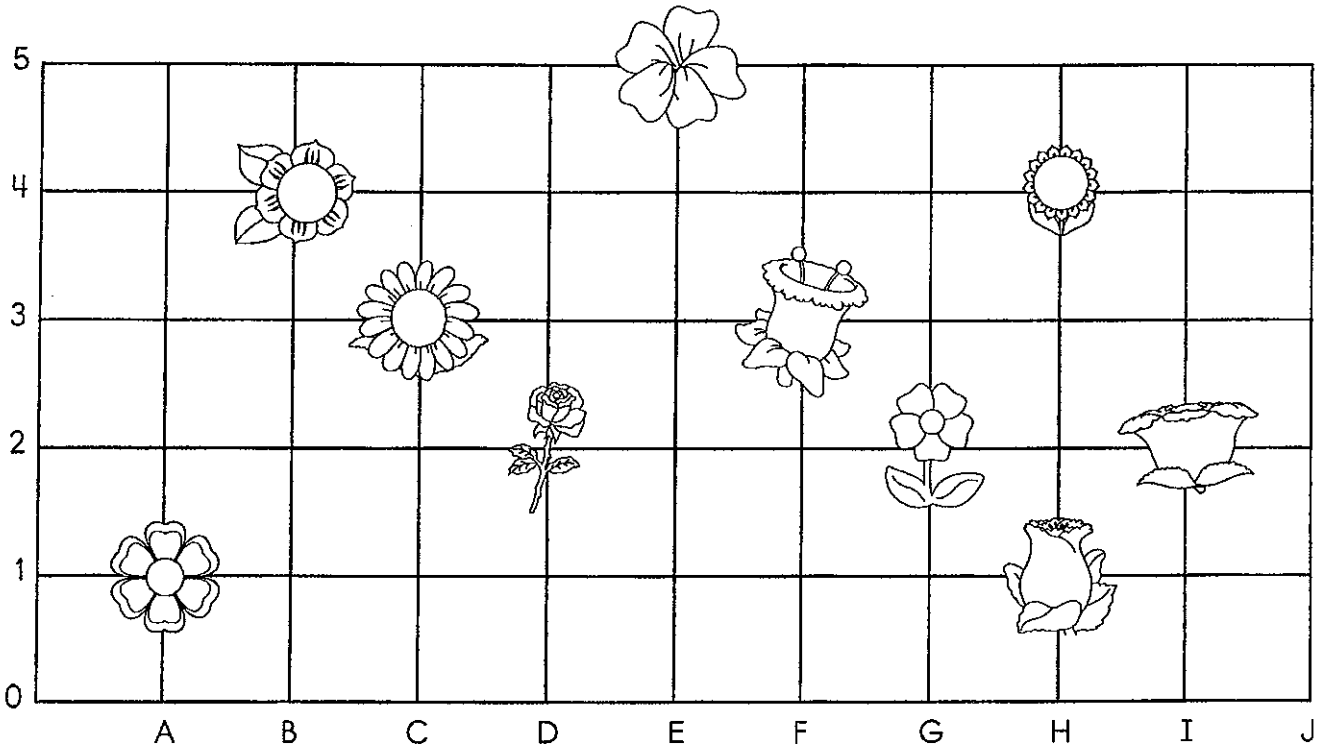
4. What does genome sequencing mean?
   (a) finding out the order of genes
   (b) recreating the genes of an animal
   (c) studying of genes of an extinct animal
   (d) combining the genes of two closely related species

Name_____

5.G.1

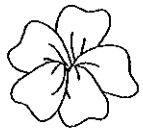
A **grid** can be used to show an object's location. It has numbered or lettered lines.

Example: To find the location of the  , move along the bottom horizontal line and find the lettered line the flower is on. Then, move up the line vertically and trace across to see what numbered line it is on. This flower is located at (F, 3).



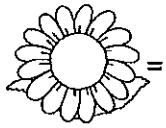
Use the grid above to write the location of each plant.

1.  = (___, ___)

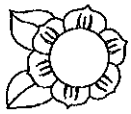
2.  = (___, ___)

3.  = (___, ___)

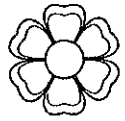
4.  = (___, ___)

5.  = (___, ___)

6.  = (___, ___)

7.  = (___, ___)

8.  = (___, ___)

9.  = (___, ___)

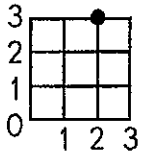
☐ **I understand a coordinate system and coordinates.**

Name_____

5.G.1

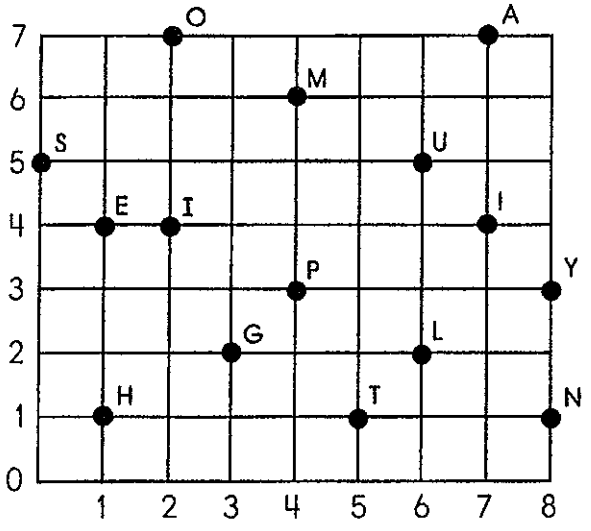
An **ordered pair** can be used to locate a point on a grid or coordinate graph. An ordered pair looks like this: (2,3). The first number tells how many units the point is located to the right of zero. The second number tells how many units the point is located up from zero.

Example: Find (2,3). Move right 2, and up 3.



Write the letters in order on the lines provided for each ordered pair.

1. (4,6) _____	2. (7,7) _____	3. (5,1) _____	4. (1,1) _____
5. (1,1) _____	6. (1,4) _____	7. (6,2) _____	8. (4,3) _____
9. (0,5) _____	10. (8,3) _____	11. (2,7) _____	12. (6,5) _____
13. (3,2) _____	14. (1,4) _____	15. (5,1) _____	16. (5,1) _____
17. (1,1) _____	18. (1,4) _____	19. (4,3) _____	20. (2,7) _____
21. (2,4) _____	22. (8,1) _____	23. (5,1) _____	24. (7,4) _____



What is the secret message?

_____

_____

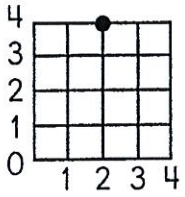
☐ I understand a coordinate system and coordinates.

Name_____

5.G.1, 5.G.2

An **ordered pair** can be used to locate a point on a grid or coordinate graph. An ordered pair looks like this: (2,4). The first number tells how many units the point is located to the right of zero. The second number tells how many units the point is located up from zero.

Example: Find (2,4). Move right 2, and up 4.



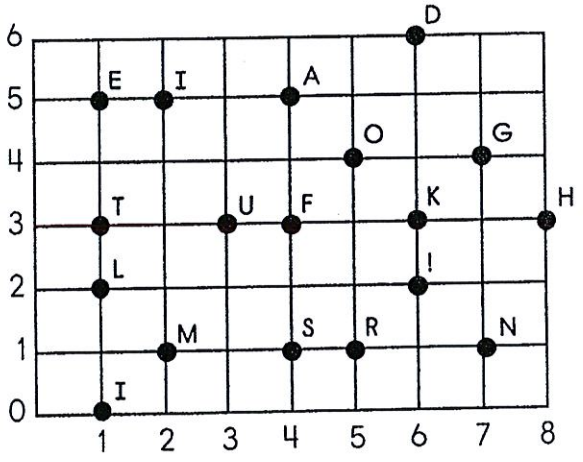
Write the letters for each ordered pair to find the message.

(2,1) (4,5) (1,3) (8,3) (1,0) (4,1) (5,4) (7,1) (1,5) (5,4) (4,3) (1,3) (8,3) (1,5)

(1,0) (7,1) (7,4) (5,1) (1,5) (6,6) (1,0) (1,5) (7,1) (1,3) (4,1) (4,3) (5,4) (5,1)

(2,1) (4,5) (6,3) (1,0) (7,1) (7,4)

(1,2) (1,0) (4,3) (1,5) (4,3) (3,3) (7,1) (6,2).



- ☐ I understand a coordinate system and coordinates.
- ☐ I can graph points in the first quadrant of the coordinate plane.