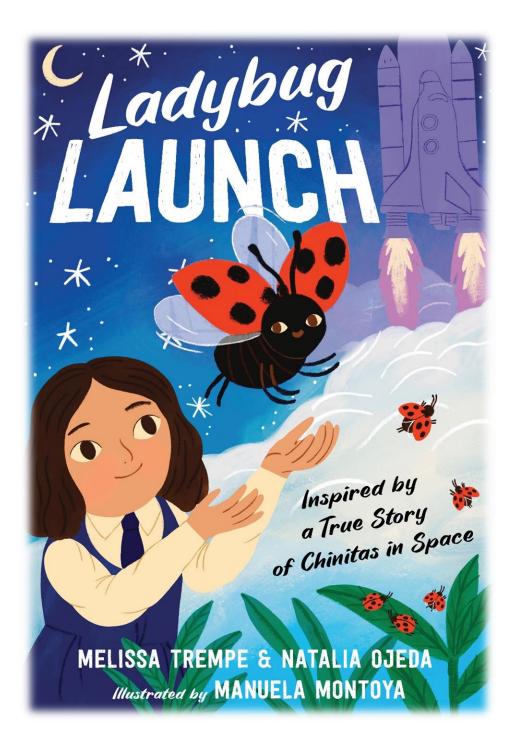
## **Educator Guide**

Created by Melissa Trempe



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# About the Creators

Melissa Trempe has swum with sharks and hiked a volcano, but her favorite pastime is writing for children. She enjoyed teaching elementary and middle school for many years outside of Philadelphia, PA. She looks forward to connecting with readers at school visits to share her love for writing and encourage children to pursue their passions. When she isn't working, she loves reading with her kids, camping, skiing, playing with her dog, and eating just about any flavor of ice cream. Visit her at www.melissatrempe.com.





Natalia Ojeda grew up in a simple home in the

southernmost country of the world: Chile. Her family had few resources, yet her faith, determination, and experience in the ladybug project helped her to overcome the odds and achieve her dream of becoming a doctor. She is a doctor in the Palliative Care Unit of San Juan de Dios Hospital in Santiago, Chile. As a mother of four girls, she wants to share her story of strength and hope with children around the world.

Manuela Montoya is the illustrator of many picture books. She was born in Medellín, Colombia. She studied graphic design and advertising in her hometown and art direction in Barcelona, where she now lives. She loves working with gouache, colored pencils, ink, and digital media. Learn more at ManuMontoya.com.



### **Before Reading**

Look at the front cover. What do you notice? What predictions can you make? What do you think the story will be about? What clues do we get from the title?



What do you think a chinita (pronounced chee-nee-tah) might be?

### **During Reading**

Who is Luna? What do we know about her? Who is Natalia? What do we know about her? What does Luna do to try to get to space? What does Natalia do that shows she wants to be a scientist?

### After Reading

What are some steps Natalia's class took to get Luna to space?

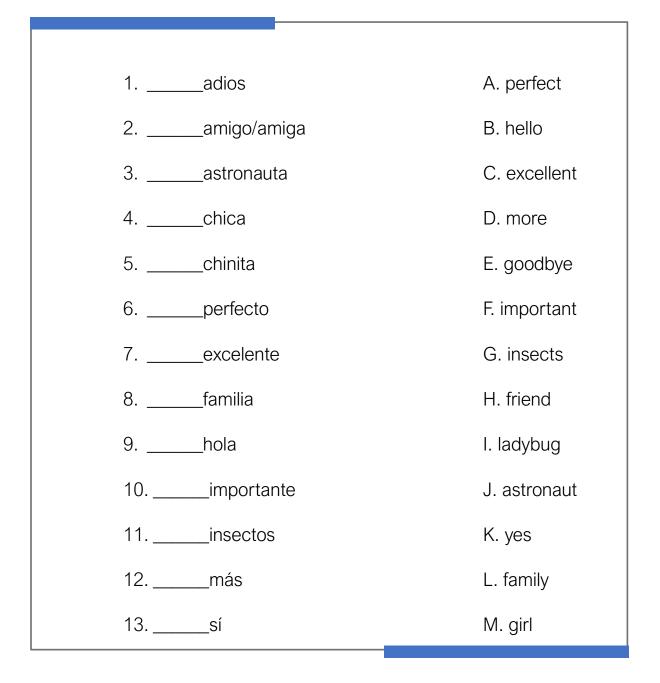
Was getting Luna to space easy or hard? What evidence from the text supports your answer?

Does Natalia change from the beginning of the story to the end? If so, how?

What do you think Natalia and Luna learned by the end of the story? Support your answer with evidence from the text.

Why are ladybugs good for a garden? What do they do to help people or plants?

### Vocabulary Match – Spanish to English



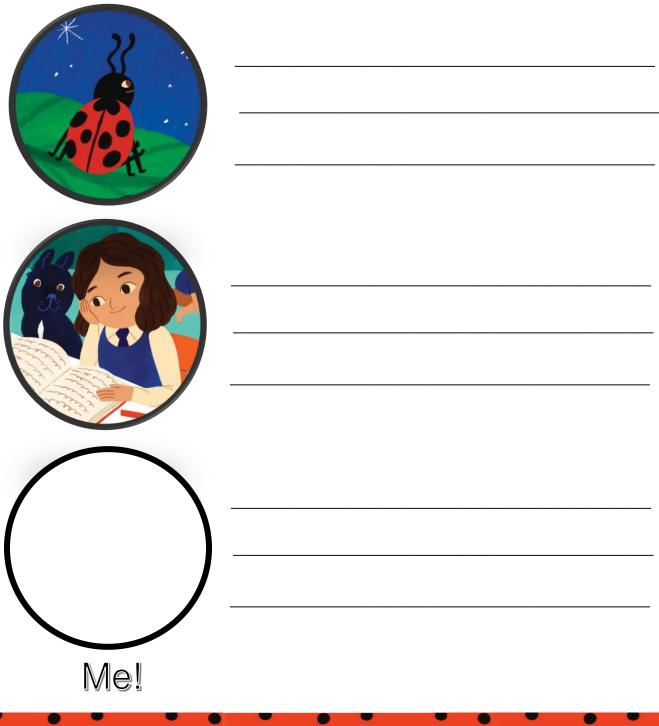
Word Scramble! Unscramble the words to learn what colors ladybugs can be.

1. oleywl	2. edr	3. gareno
4. ipkn	_ 5.rgey	_ 6. ubel

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### **Character Analysis**

Describe each character in a few words. Use at least one piece of evidence from the story to support your answer. Then draw a picture of YOU. How would you describe yourself?



### Sequence of Events

Cut apart the sequence of events below. Create a group of six people and hand each person an event. See how quickly your group can line up with your events in chronological order.

Natalia and her classmates raise money for their ladybug project.

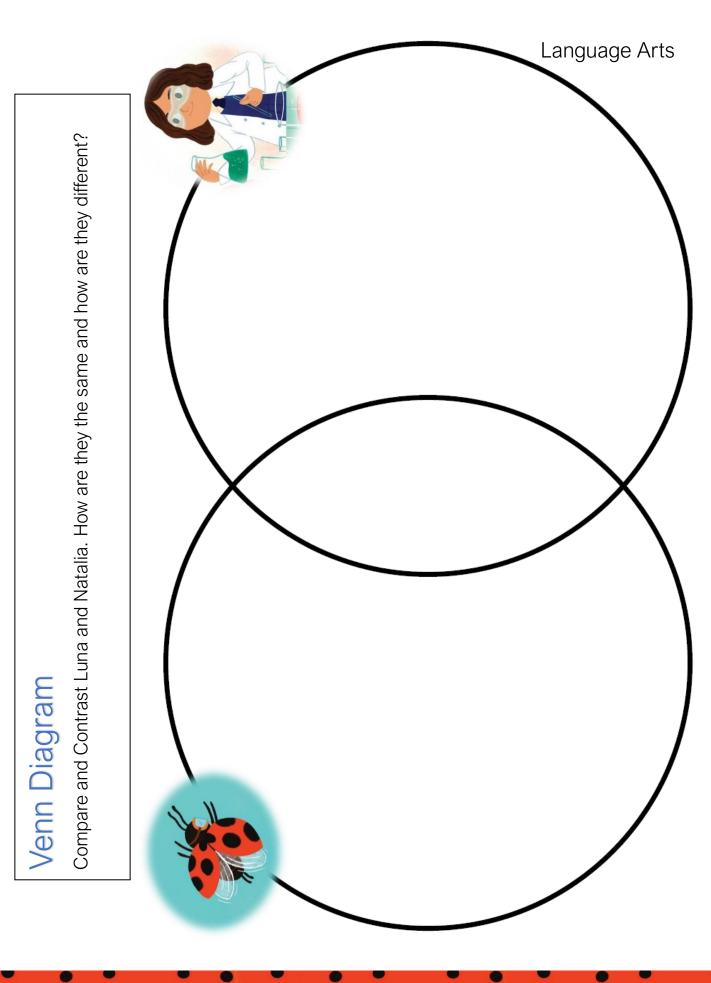
Luna flies to space with NASA.

Luna tries flying to space. She is chased by a bird!

Natalia travels to the United States to prove their experiment will work. She presents to scientists.

Natalia climbs a tree to get her science paper.

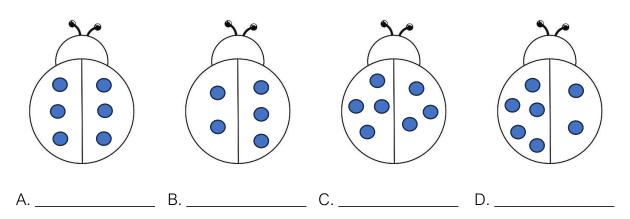
Natalia breeds ladybugs at home in tin cans.



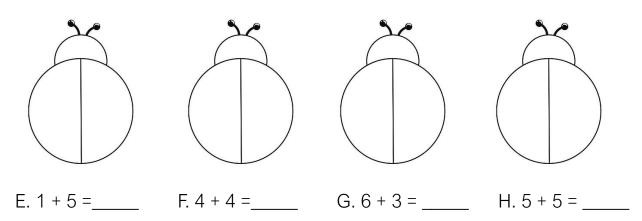
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### Add Ladybug Spots

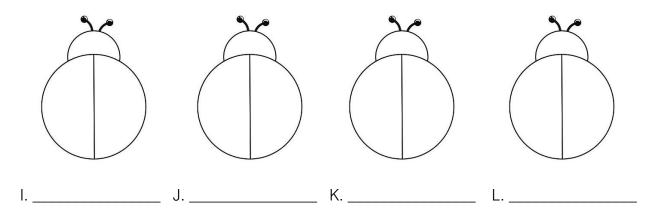
Many believe ladybugs are good luck. If a ladybug lands on you, count the number of spots, and that will be how many years you'll have good luck. BELOW: Write a number sentence to match each ladybug.



Draw dots on the ladybugs below to match the number sentence.



Draw dots on the ladybugs below and give them to a friend to create a number sentence for each.



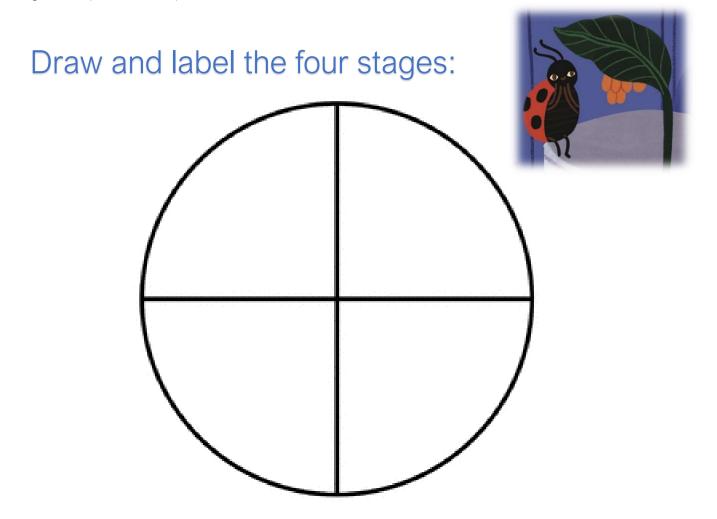
### Four Stages of a Ladybug

**Egg Stage**: A female ladybug lays tiny eggs. These eggs are usually laid on the underside of leaves, where they are safe. They look like tiny footballs.

Larva Stage: After the eggs hatch, they turn into larvae. Larvae are tiny and look a bit like tiny alligators. They have long bodies with little legs. During this stage, the larvae eat a lot because they're growing. They eat aphids and other tiny bugs.

**Pupa Stage**: When the larva gets big enough, it turns into a pupa. A pupa is like a cocoon. During this stage, the ladybug is transforming inside. It might look like it's sleeping or not moving much, but a lot is happening inside.

Adult Stage: Finally, the pupa breaks open, and out comes the adult ladybug! Now it has its wings and its red shell with black spots. It's ready to fly and eat garden pests like aphids!



### Chile: A Beautiful Country!

Chile is a country located in South America. It is known for its unique shape, stretching long and thin along the western edge of the continent. It has a diverse landscape, including deserts, mountains, forests, and coastline along the Pacific Ocean. In Chile, you can find the Atacama Desert, one of the driest places on Earth. Chile is also known for the Andes Mountains, which are some of the tallest mountains in the world. People in Chile speak Spanish.

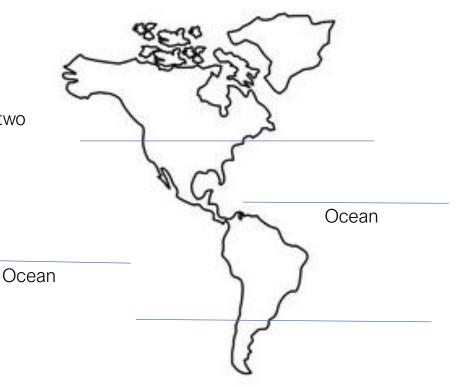
Chileans make lots of delicious food! One popular dish is called empanadas, which are pastry pockets filled with meat, cheese, or vegetables. Another famous dish is ceviche, made with seafood marinated in lime juice and spices.

- 1. What kind of landscape might you find in Chile?\_\_\_\_\_
- 2. If you visited a beach in Chile, what ocean would you swim in?\_\_\_\_\_
- 3. What language is spoken in Chile?\_\_\_\_\_
- 4. Name one fact you learned about Chile.

### Label the Map

Label the two continents and two oceans on this map.

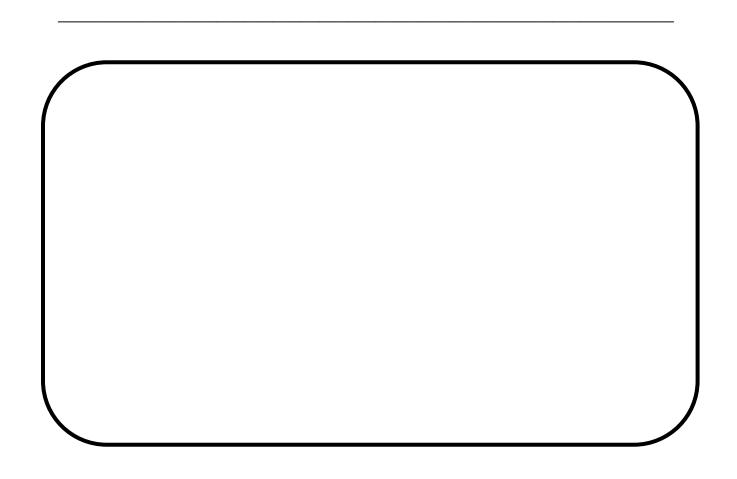
Add your favorite color where Chile is located.



### Amazing Animals in Space

- Fruit flies were the first living creature sent to space in 1947.
- **4** Two tortoises orbited the moon before people did.
- **4** Two spiders, Anita and Arabella, spun webs in zero gravity.
- **4** Bees flew to space to see if they could still make honey, and they could!
- **4** A French cat named Astrocat traveled to space.
- **4** Over 2,000 moon jellyfish flew to space.
- Many mice have flown to space. Scientists report that within minutes, mice happily float about, grooming themselves and snacking.

If you could send an animal to space, what would it be and why? Draw a picture!

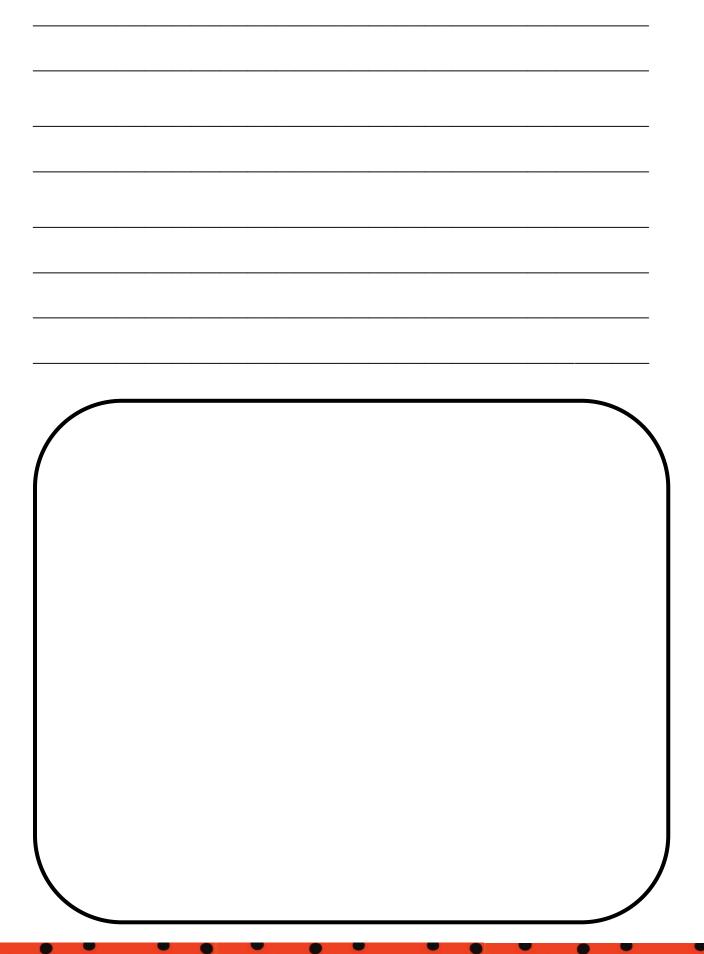


#### **Fiction Writing**

### Dream BIG!

Natalia dreamed of becoming a scientist. Luna wanted to fly to the stars. What do YOU want to do? Write a story about you achieving your dream. Add an illustration.





### Letter Writing

Do you have questions for the authors? Or would you just like to say hi? Melissa Trempe and Natalia Ojeda would love to hear from you!



How to set up and write a letter or an email:

### Dear\_\_\_\_,

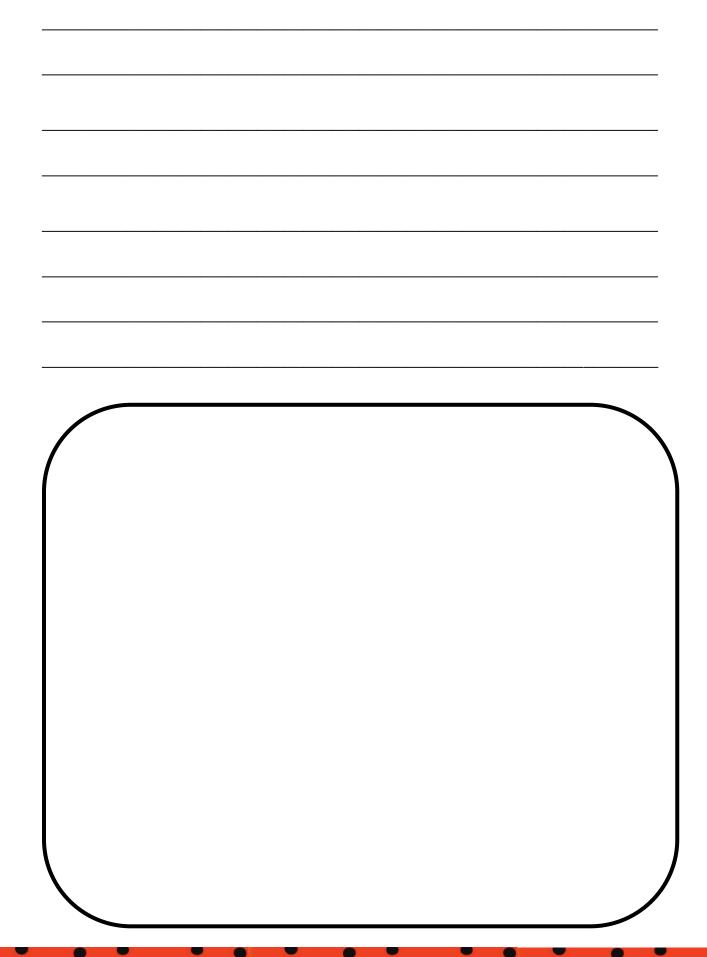
- Introduce yourself. Consider sharing what you hope to do in the future.
- 2) What do you want to tell the author or ask about? What was your favorite part of the story? What do you want to know more about?
- 3) Write a conclusion. Do you hope you get a letter back? Thank the person for their time.

### Sincerely,

### Your Name

### Try, try again!

No one is an instant success. Whether it's the first time you bake a cake, lace up ice skates, or hop on a bike, it takes practice to become great. Write a narrative about a time you tried something new. How did it feel? Were you nervous? Was it hard? Add an illustration!



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### Want to Learn More?

Ladybugs: Ladybugs aren't actually bugs! Find more fascinating facts about these insects by going to rangerrick.org or kids.nationalgeographic.com. Type LADYBUG in the search bar to find articles and activities. https://kids.nationalgeographic.com/animals/invertebrates/facts/ladybug

**Growing crops in space**: While scientists are not yet ready to farm in space, NASA is studying how plants grow in zero gravity. As trips to space get longer, astronauts will need to grow crops to have fresh fruits and vegetables. Find out more from NASA: <u>https://www.nasa.gov/content/growing-plants-in-space</u>

**Eileen Collins, first woman to command a NASA mission**: Eileen Collins led the mission that flew ladybugs to space. It was the first time a woman led a mission to space for NASA. Learn more about her and other women leading the way at NASA. <u>https://chandra.harvard.edu/women/story.html</u>

**Chandra X-ray Observatory**: Natalia's ladybugs flew on the mission launching the Chandra X-ray Observatory, which has been sending images of exploded stars, black holes, and other galaxies to Earth for over 20 years! See the images at: <u>https://chandra.harvard.edu/photo/</u>

Read another book about insects in space: <u>Spidernaut: Arabella, the Spider in</u> <u>Space</u> by Jodie Parachini and illustrated by Dragan Kordić.



### Standard Connections English Language Arts

RL.1.1: Ask and answer questions about key details in a text.

RL.1.2: Retell stories, including key details, and demonstrate understanding of their central message or lesson

RL.1.3: Describe characters, settings, and major events in a story, using key details.

RL.1.7: Use illustrations and details in a story to describe its characters, setting, or events.

RL.1.9 Compare and contrast the adventures and experiences of characters in stories.

W.1.3: Write narratives in which they recount two or more appropriately sequenced events, include some details regarding what happened, use temporal words to signal event order, and provide some sense of closure.

SL.1.1: Participate in collaborative conversations with diverse partners about grade 1 topics and texts with peers and adults in small and larger groups.

SL.1.2: Ask and answer questions about key details in a text read aloud or information presented orally or through other media

SL.1.3: Ask and answer questions about what a speaker says in order to gather additional information or clarify something that is not understood.

SL.1.4: Describe people, places, things, and events with relevant details, expressing ideas and feelings clearly

SL.1.5: Add drawings or other visual displays to descriptions when appropriate to clarify ideas, thoughts, and feelings.

CC.1.2.1.G / CC.1.3.1.G Use the illustrations and details...to describe its key ideas / Use illustrations and details...to describe characters, setting, or events.

CC.1.2.1.H / CC.1.3.1.H Identify the reasons an author gives to support points in a text / Compare and contrast the adventures and experiences of characters in stories.

CC.1.2.1.K / CC.1.3.1.I Determine... the meaning of unknown or multiple-meaning words and phrases...

CC.1.4.1.B / CC.1.4.1.H / CC.1.4.1.N Identify and write about one specific topic / Form an opinion by choosing among given topics / Establish who and what the narrative will be about.

CC.1.5.1A Participate in collaborative conversations with peers and adults in small and larger groups.

CC.1.5.1.B Confirm understanding of a text read aloud...by answering questions about key details...

CC.1.5.1.C Ask and answer questions...to gather additional information or clarify something...

CC.1.5.1.D Describe people, places, things, and events with relevant details, expressing ideas...

### Answer Key

#### Spanish to English

1. E	8. L	
2. H	9. B	
3. J	10.	F
4. M	11.	G
5. I	12.	D
6. A	13.	K

7. C

#### Word Scramble

1. Yellow	2. Red	3. Orange
4. Pink	5. Grey	6. Blue

#### Math

A. 3+3=6 B. 2+3=5 C. 4+3=7 D. 5+2=7

E. to H. There are multiple correct ways to add dots.

I. to L. Students create their own dotted ladybugs and number sentences.