



Dear 6<sup>th</sup> – 8<sup>th</sup> Grade Parents and Guardians:

While your students are home, we ask that you continue to partner with us in ensuring ongoing learning. Below is a list of activities we recommend your students complete on a daily basis.



**Reading (20 minutes)** - if you have access to online resources, your student can log into [Clever](#) to access district resources such as Pearson Realize, Compass Learning, and [Scholastic](#). Please encourage your student to choose stories or articles to read. If you have reading materials at home, feel free to use those as well. After students are done reading, have your students tell you what their article or story was about. Students may also complete hard copy Reading activities as well. Reading packet options are available [here](#).



**Writing (30 minutes)**- if you have access to online resources, please visit [Scholastic Story Starters](#) (6<sup>th</sup> grade only), [Story Jumpers](#), or [Story Board That](#) for fun and creative story starters and writing prompts. Have students use these prompts and tools to create their very own story. Students can also write... a story, their feelings, their thoughts about what they are reading, a letter, an information piece about something on which they are an expert. Writing packet options are available [here](#).



**Math (30 minutes)** - if you have access to online resources, your student can log into [Clever](#) to access Mathia. A Math [scavenger hunt](#) is provided to encourage your student to find the math that is all around them. Visit [IXL](#), [Khan Academy](#), and [Cool Math](#) for practice and fun Math games. Math packet options are available [here](#).



**Social Studies (20 minutes)** - if you have online access, your student can log into [Clever](#) to access district resources. You will also find articles in both English and Spanish at [Tweentribune](#). Have students to read and complete the quiz. Also visit [Education.com](#), [Newsela](#), and [IXL](#) for interactive Social Studies activities. Social Studies packet options are available [here](#).



**Science (20 minutes)** - if you have access to online access, your student can log into [Clever](#) to access district resources. Visit [Energy Kids](#) to learn more about energy as well as games and activities. Visit this [Optics 4 Kids](#) to learn about cool optical illusions and visit [Ask a Biologist](#) for virtual field trips and activities. Visit [YouTube videos](#) and [National Geographic Kids](#) to learn more about science. Science packet options are available [here](#).



**Exercise (60 minutes a day)** - regular exercise and movement is important to do every day. Movement helps you reduce stress, build strong bones and muscles, and helps you to be ready to learn! Try to get 60 minutes of physical activity every day. Visit [GoNoodle](#) for movement videos.



Estimados padres y tutores de 6º a 8º grado:

Mientras sus estudiantes estén en casa, le pedimos que continúe colaborando con nosotros para garantizar un aprendizaje continuo. A continuación, hay una lista de actividades que recomendamos que sus estudiantes completen diariamente.



**Lectura (20 minutos)** - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder a recursos del distrito como Pearson Realize, Compass Learning y [Scholastic](#). Por favor anime a su estudiante a elegir historias o artículos para leer. Si tiene materiales de lectura en casa, siéntase libre de usarlos también. Una vez que los alumnos hayan terminado de leer, pídale que le cuenten de qué se trata su artículo o historia. Los estudiantes también pueden completar actividades de lectura impresas. Las opciones de paquetes de lectura están disponibles [aquí](#).



**Escritura (30 minutos)**- Si tiene acceso a recursos en línea, visite [Scholastic Story Starters](#) ( solo 6<sup>th</sup> grado), [Story Jumpers](#), o [Story Board That](#) para iniciadores de historias divertidas y creativas y mensajes de escritura. Haga que los estudiantes usen estas indicaciones y herramientas para crear su propia historia. Los estudiantes también pueden escribir ... una historia, sus sentimientos, sus pensamientos sobre lo que están leyendo, una carta, una información sobre algo en lo que son expertos. Las opciones de paquetes de escritura están disponibles [aquí](#).



**Matemáticas (30 minutos)** - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para usar Mathia. Una búsqueda de matemáticas se puede encontrar en [scavenger hunt](#) para animar a su estudiante a encontrar las matemáticas que en todo su alrededor. Visite [IXL](#), [Khan Academy](#), y para practicar y divertirse con juegos matemáticos. Las opciones de paquetes matemáticos están disponibles [aquí](#).



**Estudios sociales (20 minutos)** - Si tienen acceso en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder los recursos. Encontrarán artículos en inglés y español en [Tweentribune](#). Los estudiantes pueden leer y contestar las preguntas aquí. También visite [Education.com](#), [Newsela](#), y [IXL](#) para actividades interactivas. Las opciones de paquetes de estudios sociales están disponibles [aquí](#).



**Ciencias (20 minutos)** - Si tiene acceso a recursos en línea, su estudiante puede iniciar sesión en [Clever](#) para acceder los recursos. Visite [Energy Kids](#) para aprender más sobre energía, juegos y actividades. Visite [Optics for Kids](#) para aprender sobre ilusiones ópticas geniales y otras actividades. Visite [Ask a Biologist](#) para excursiones virtuales y actividades. Visite [YouTube videos](#) y [National Geographic Kids](#) para aprender más de ciencias. Las opciones de paquetes de ciencias están disponibles [aquí](#).



**Ejercicio (60 minutos diarios)** - es importante hacer ejercicio y movimiento regularmente todos los días. ¡El movimiento te ayuda a reducir el estrés, desarrollar huesos y músculos fuertes, y te ayuda a estar listo para aprender! Intente realizar 60 minutos de actividad física todos los días. Visite [GoNoodle](#) para videos de movimiento.



<p>Access these programs from Clever at <a href="https://www.clever.com/in/maywood89">https://www.clever.com/in/maywood89</a></p>	
	Lexia Core 5 has literacy activities with tracked progress and customized lessons. K-5; App available
	Raz-Kids has online leveled books from basic to advanced. Students can record themselves and take quizzes. K-5; English and Spanish; App available
	Imagine Español has Spanish literacy activities with tracked progress and customized lessons. K-3; Spanish
	Imagine Math has math activities with tracked progress and customized lessons. K-5
	Wonders/Maravillas includes literature, vocabulary, writing, and grammar activities K-5; English and Spanish; App available (separate sign-in required—email teacher if needed)
	World Book A world of learning at your fingertips. Explore important people, animals, maps, science, and activities. K-8; English and Spanish
	Edgenuity Pathblazer includes Math and Reading activities linked to standards. K-8; Limited School Access

If you need login assistance with login information, contact your teacher through [email](#).

## Additional Resource Links

Reading	
	<a href="https://classroommagazines.scholastic.com/support/learnathome.html">https://classroommagazines.scholastic.com/support/learnathome.html</a> Choose books, videos, and activities by grade levels
	<a href="https://www.thespanishexperiment.com/stories">https://www.thespanishexperiment.com/stories</a> Children's stories in Spanish
	<a href="https://www.storylineonline.net/">https://www.storylineonline.net/</a> Actors and Actresses read books with illustrations
	<a href="https://www.getepic.com/">https://www.getepic.com/</a> 1000's of award winning books. English and Spanish Signup required, free 30 days
	<a href="https://newsela.com/">https://newsela.com/</a> English; <a href="https://newsela.com/rules/spanish">https://newsela.com/rules/spanish</a> Spanish News articles written for students with quizzes and writing prompts for 3-8; English and Spanish
	<a href="https://www.tweentribune.com/">https://www.tweentribune.com/</a> Informational text at different grade levels
	<a href="https://stories.audible.com/start-listen">https://stories.audible.com/start-listen</a> Free audiobooks for PreK-High school students

Online Magazines	
	Time for Kids <a href="http://www.timeforkids.com">http://www.timeforkids.com</a>
	Scholastic News <a href="http://magazines.scholastic.com">http://magazines.scholastic.com</a> English <a href="https://classroommagazines.scholastic.com/spanish.html">https://classroommagazines.scholastic.com/spanish.html</a> Spanish
	Highlights Kids <a href="https://www.highlightskids.com/">https://www.highlightskids.com/</a>
	Sport Illustrated Kids <a href="http://www.sikids.com">http://www.sikids.com</a>
	National Geographic Kids <a href="http://kids.nationalgeographic.com">http://kids.nationalgeographic.com</a>

Writing	
	<a href="http://www.scholastic.com/teachers/story-starters/index.html">http://www.scholastic.com/teachers/story-starters/index.html</a> Story Starter ideas by grade level
	<a href="https://www.storyboardthat.com/">https://www.storyboardthat.com/</a> Digital story telling with backgrounds, characters, and text

Dual Language	
	<a href="https://l2trec.utah.edu/news/utahdliathome/spanish.php">https://l2trec.utah.edu/news/utahdliathome/spanish.php</a> Spanish and Dual language activities and resources

Math	
	<a href="https://www.coolmath4kids.com/">https://www.coolmath4kids.com/</a> K-5 Math games, lessons, brainteasers
	<a href="https://minds-in-bloom.com/math-scavenger-hun/">https://minds-in-bloom.com/math-scavenger-hun/</a> K-5 Math scavenger hunt ideas
	<a href="https://www.khanacademy.org/math">https://www.khanacademy.org/math</a> K-8 Practice early math through grade 8
	<a href="https://www.ixl.com/">https://www.ixl.com/</a> K-8 Practice early math through grade 8
	<a href="https://www.mathgames.com/math-games.html">https://www.mathgames.com/math-games.html</a> K-8 math games by grade and topic

Science and Social Studies	
	BrainPop Jr <a href="https://jr.brainpop.com">https://jr.brainpop.com</a> BrainPOP Español <a href="https://esp.brainpop.com">https://esp.brainpop.com</a> BrainPop <a href="https://www.brainpop.com/">https://www.brainpop.com/</a> BrainPopELL <a href="https://ell.brainpop.com">https://ell.brainpop.com</a> Animated educational videos and activities on many school topics K-8; App available (Username: district89; Password: brainpop2)
	<a href="https://www.eia.gov/kids/">https://www.eia.gov/kids/</a> Information and games about energy
	<a href="https://www.optics4kids.org/illusions">https://www.optics4kids.org/illusions</a> Optical illusions
	<a href="https://blockly.games/">https://blockly.games/</a> Programming games for kids
	<a href="https://www.education.com/activity/social-studies/">https://www.education.com/activity/social-studies/</a> Social Studies activities by grade level

Health	
	<a href="https://www.gonoodle.com/">https://www.gonoodle.com/</a> Movement and mindfulness videos
	<a href="https://aha-nflplay60.discoveryeducation.com/families">https://aha-nflplay60.discoveryeducation.com/families</a> Fun activities, videos, and virtual field trips

Art/Music	
	<a href="http://www.maywoodfinearts.org/?page_id=3043">http://www.maywoodfinearts.org/?page_id=3043</a> Take an online class with Maywood Fine Arts
	<a href="https://colormandala.com/">https://colormandala.com/</a> Color mandelas online

For Parents	
	<a href="http://www.parenttoolkit.com/">http://www.parenttoolkit.com/</a> English; <a href="http://www.parenttoolkit.com/home?lang=es">http://www.parenttoolkit.com/home?lang=es</a> Spanish Age level guides for academic, health, social emotional topics and video parenting guides English and Spanish

## Virtual Field Trips/Tours

Use Google Earth to explore our National Parks.

[Badlands National Park](#)  
[Death Valley National Park](#)  
[Denali National Park](#)  
[Everglades National Park](#)  
[Glacier National Park](#)  
[Grand Canyon National Park](#)  
[Great Smoky Mountain National Park](#)  
[Redwood National and State Parks](#)  
[Rocky Mountain National Park](#)  
[Yellowstone National Park](#)



Lesson ideas:

Choose a National Park. Record your observations, then choose to create one of the following:

- Design a travel brochure
- Write a newspaper article to describe the location and encourage travel there
- Create a map that shows the location of the national park

Zoos and Web Cams - Observe various zoo animals through web cams.

[Smithsonian's National Zoo](#)  
[San Diego Zoo](#)  
[Animal Planet Live](#)  
[National Aquarium](#): Black Tip Reef Sharks, Jellies, and Pacific Coral Reef Live  
[Seattle Aquarium](#): YouTube virtual field trip and lesson  
[Seattle Aquarium Live Cams](#)



Lesson ideas:

Visit and observe an animal of your choice. Complete one of the following:

- Observe the animal for one week. Record these observations and then write a journal about the animal and its habits.
- Create an informative poster about the animal.
- Describe the animal's habitat.

[Planetarium](#) - Explore over 60,000 stars, locate planets, and watch sunrises and solar eclipses. If you enter your location, and you can see all the constellations that are visible in the night sky in your corner of the world.

[NASA Commercial Crew Virtual Tours](#) - YouTube series containing virtual tours of training facilities. Learn how the astronauts train for space travel and life aboard the International Space Station.

[Smithsonian Latino Center](#) - Features live broadcasts of Latina writers and virtual exhibits around latino cultures. Includes a Latino Virtual Museum Bilingual Teacher Training Took Kit that is now available online and via iTunes U.

Tour various locations from around the world.

[The Great Wall of China](#)  
[Pompeii](#)  
[Ellis Island](#) - this site also includes some additional activities

Lesson ideas:

Write a journal entry from about a journey to this location.  
Create a travel brochure.

Take a trip to Walt Disney World and go on a virtual ride of some of Disney's famous attractions.

[Space Mountain](#)  
[Splash Mountain](#)  
[Test Track](#)  
[Expedition Everest](#)  
[Rock n Roller Coaster](#)  
[Soarin'](#)  
[Seven Dwarfs Mine Train](#)  
[Rise of the Resistance](#)  
[Mickey and Minnie's Runaway Railway](#)  
[Slinky Dog Dash](#)  
[Millenium Falcon/ Smuggler's Run](#)



## Student eLearning Activities Log Week 5 – April 21 - 24

Student Name \_\_\_\_\_ Grade \_\_\_\_\_

Teacher \_\_\_\_\_

Please write the activities you completed each day.

	Monday	Tuesday	Wednesday	Thursday	Friday
Example:		Reading packet Math packet Raz-Kids Art Imagine Math	Imagine Math Writing Virtual Tour Read a book Jumped Rope/Burpees	Imagine Math Reading packet Math packet Social Studies Music YouTube exercise video	Imagine Math Reading packet Math packet Art project Science experiment Raz-Kids Lexia
Activities/ Assignments					

Parent Signature \_\_\_\_\_ Date \_\_\_\_\_

## Registro de actividades de aprendizaje electrónico semana 5 del 21 de abril al 24 de abril

Nombre \_\_\_\_\_ Grado \_\_\_\_\_

Maestro/a \_\_\_\_\_

Por favor escribe las actividades que completaste cada día.

	lunes	martes	miércoles	jueves	viernes
Ejemplo:		Paquete de lectura Paquete de matemáticas Raz-Kids Arte Imagine Math Lexia	Imagine Math Escritura Paseo Virtual Leer un libro Brincar la cuerda/sentadillas lexia	Imagine Math Paquete de lectura Paquete de matemáticas Estudios Social Video YouTube de ejercicio	Imagine Math Paquete de lectura Paquete de matemáticas Arte Experimento de Ciencia Raz-Kids Lexia
Actividades/ Tareas					

Firma de Padres \_\_\_\_\_ Fecha \_\_\_\_\_

# Literary Analysis: Forms of Poetry

## Practice

There are many different **forms of poetry**. A poet will follow different rules depending on the structure of the poem.

- A **lyric poem** expresses the poet's thoughts and feelings about a single image or idea in vivid, musical language.
- In a **concrete poem**, the poet arranges the letters and lines to create a visual image that suggests the poem's subject.
- **Haiku** is a traditional form of Japanese poetry that is often about nature. The first line always has five syllables, the second line has seven syllables, and the third line has five syllables.

Read this stanza from "The Tide Rises, the Tide Falls" by Henry Wadsworth Longfellow. Then, answer the following questions.

The tide rises, the tide falls,  
The twilight darkens, the curlew calls;  
Along the sea sands damp and brown  
The traveler hastens toward the town,  
And the tide rises, the tide falls.

1. What type of poetic structure did the poet use? List several details that support your answer.

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2. Select one of the images from the poem. Write a line that might be part of a haiku based on this image.

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3. Using an image from the poem, decide what shape you would select if you were writing a concrete poem. Explain why you selected the image.

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**Literary Analysis: Forms of Poetry****Assess**

Read each statement. Circle the letter of the choice that best completes each statement or answers the question.

1. A \_\_\_\_\_ expresses a poet's thoughts and feelings about a single image or idea in vivid, musical language.  
A. lyric poem  
B. concrete poem  
C. ballad poem  
D. haiku
2. The \_\_\_\_\_ is a traditional form of Japanese poetry that is often about nature.  
A. lyric poem  
B. concrete poem  
C. ballad poem  
D. haiku
3. A \_\_\_\_\_ has the letters and lines arranged to create a shape.  
A. lyric poem  
B. concrete poem  
C. ballad poem  
D. haiku
4. In a \_\_\_\_\_ the first line has five syllables, the second line has seven syllables, and the third line has five syllables.  
A. lyric poem  
B. concrete poem  
C. ballad poem  
D. haiku
5. A \_\_\_\_\_ uses a combination of rhythm and sound to produce musical language.  
A. lyric poem  
B. concrete poem  
C. ballad poem  
D. haiku
6. Which of the following lines is most likely from a haiku?  
A. When lilacs last in the  
dooryard bloom'd  
B. Fall into water  
C. When the frost in on  
the pumpkin'  
D. I wandered as lonely as a cloud

# Literary Analysis: Figurative Language

## Practice

**Figurative language** is language that is not meant to be taken literally. Writers use figures of speech to express ideas in vivid and imaginative ways. Common figures of speech include the following:

- A **simile** compares two unlike things using a word such as *like* or *as*.
- A **metaphor** compares two unlike things by stating that one thing is another thing.
- In an **extended metaphor**, several related comparisons extend over a number of lines.
- **Personification** gives human characteristics to a nonhuman subject.
- A **symbol** is an object, person, animal, place, or image that represents something else.

**A** Read each line to determine which figure of speech has been used. Then, write the figure of speech on the line.

1. The wind howled like a wild goblin.

\_\_\_\_\_

2. The trees were raining tears of leaves.

\_\_\_\_\_

3. The eagle on the seal of the United States represents strength.

\_\_\_\_\_

**B** Write an example of figurative language on each of the following lines.

1. simile

\_\_\_\_\_

2. metaphor

\_\_\_\_\_

3. personification

\_\_\_\_\_

## Literary Analysis: Figurative Language

### Assess

**A** Read the following sentences. Then, write whether the sentence contains a simile or a metaphor.

1. He was as nervous as a long-tailed cat in a room full of rocking chairs.

\_\_\_\_\_

2. My bed is my magic carpet to dreamland.

\_\_\_\_\_

3. He ran the mile like a gazelle on the plains.

\_\_\_\_\_

4. The lessons of our lives are forged in the links of lasting memories.

\_\_\_\_\_

5. The dawning of a new day is like a blank page in a diary.

\_\_\_\_\_

**B** Read the following sentences. Then, write whether the sentence contains personification or refers to a symbol.

1. The snow tickled my nose.

\_\_\_\_\_

2. An eagle with wings spread grasps arrows in its claws.

\_\_\_\_\_

3. The summer breeze kissed my face.

\_\_\_\_\_

4. A raven sits on a tombstone.

\_\_\_\_\_

5. The lawn mower coughed to life.

\_\_\_\_\_

# Literary Analysis: Narrative Poetry

## Practice

**Narrative poetry** combines elements of fiction and poetry to tell a story. It also

- includes characters, setting, plot, conflict, and point of view.
- uses sound devices such as rhythm and rhyme to create a musical quality.
- incorporates figurative language to create memorable images, or word pictures.

Narrative poetry is well suited to a wide range of stories. For example, narrative poems may be about bold heroes or wonderful deeds. Everyday stories about ordinary people can also be recounted in narrative poetry.

Read this stanza from "The Pied Piper of Hamelin" by Robert Browning. Then, answer the questions that follow.

Hamelin Town's in Brunswick,  
By famous Hanover city;  
The river Weser, deep and wide,  
Washes its wall on the southern side;  
A pleasanter spot you never spied;  
But, when begins my ditty,  
Almost five hundred years ago,  
To see the townsfolk suffer so  
From vermin, was a pity.

1. What details describe the setting?

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2. What conflict is presented?

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3. Create an example of figurative language that might appear in this stanza. Figurative language includes similes, metaphors, personification, and symbols.

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## Literary Analysis: Narrative Poetry

### Assess

**A** Read the following questions. Circle the letter of the choice that best completes each statement.

- Narrative poetry combines the elements of \_\_\_\_\_.  
A. short stories and nonfiction                      C. short stories and poetry  
B. fiction and poetry                                      D. fiction and nonfiction
- Sound devices such as \_\_\_\_\_ are used in narrative poetry.  
A. rhythm and language                                C. rhyme and details  
B. music and language                                  D. rhythm and rhyme
- Narrative poetry uses \_\_\_\_\_ language.  
A. formal    C. figurative  
B. conversational                                         D. romantic
- Characters in narrative poems are \_\_\_\_\_.  
A. ordinary and common                                C. historical  
B. larger than life                                         D. both A and B
- All narrative poems \_\_\_\_\_.  
A. have a happy ending                                 C. use rhythm and rhyme  
B. have a character who speaks                      D. tell a story

**B** Read the following lines from "The Cremation of Sam McGee" by Robert Service. Then, answer the question.

On a Christmas Day we were mushing our way  
over the Dawson Trail.  
Talk of your cold! Through the parka's fold  
it stabbed like a driven nail.

What elements of narrative poetry are apparent in these lines?

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# Answer Key

## Literary Analysis: Forms of Poetry

### Practice, p. 154

1. Lyric poem because it uses a single image of a traveler against the rising and falling of the tide; repeated language adds to musical quality.
2. Students should select an image and write a line from a haiku that contains the correct number of syllables.
3. Student explanations should logically support the image they selected.

### Assess, p. 155

1. A 2. D 3. B 4. D 5. A 6. B

## Literary Analysis: Figurative Language

### Practice, p. 156

- A 1. simile
2. personification
3. symbol

**B Student responses should follow the definitions for each example of figurative language.**

### Assess, p. 157

- A 1. simile
  2. metaphor
  3. simile
  4. metaphor
  5. simile
- B 1. Personification
  2. symbol
  3. personification
  4. symbol
  5. personification

## **Answer Key**

### **Literary Analysis: Narrative Poetry**

#### **Practice, p. 158**

1. Hamelin is in Brunswick by Hanover, the Weser River is deep and wide, it washes up on the southern side, the location is a pleasant spot. The poem takes place 500 years ago.
2. The townspeople are plagued by vermin (rats).
3. Student examples should relate to the poem's subject matter and reflect correct usage of the selected form of figurative language.

#### **Assess, p. 159**

A 1. B

2. D

3. C

4. D

5. D

**B** Students should mention figurative language (simile "stabbed like a driven nail") and the rhythm and rhyme of the language.

# Hope Is the Thing with Feathers

by Emily Dickinson

Hope is the thing with feathers  
That perches in the soul,  
And sings the tune without the words,  
And never stops at all,

And sweetest in the gale is heard;  
And sore must be the storm  
That could abash the little bird  
That kept so many warm.

5

I've heard it in the chillest land,  
And on the strangest sea;  
Yet, never, in extremity,  
It asked a crumb of me.

10

**perch****perch****Advanced Definition****noun**

1. a rod, branch, or the like on which birds sit.

*The parakeet flew back to its perch.*

2. a place to sit or rest, esp. a high, rather small place.

*She found a comfortable perch where she could sit quietly and read her book.*

3. a pole that connects the front and rear axles of a carriage, wagon, or the like.

**intransitive verb**

1. to rest or come to rest on a branch, rod, or the like.

*The sparrows perched on the clothes line.*

2. to rest or be situated, esp. in a spot of high elevation.

*The monkeys were perching in the tree tops.*

**transitive verb**

1. to position or set in a high place; place on or as if on a perch.

*She perched the cup on top of the bookcase.*

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**These are some examples of how the word or forms of the word are used:**

1. "Bunnies, ducks, catfish, and Nile perch--they're happy little mummies living forever in my office," she says. "It smells."
2. Once the nymphs crawl out above ground, they find a leaf on which to perch. Then they transform and turn into winged adults capable of flying around and reproducing.
3. I had 70 dollars, and I gave it to the girl as we walked up to the counter, my bird now making faces from a perch on my arm.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. What does the poet describe as the thing with feathers?

- A. soul
- B. life
- C. song
- D. hope

2. The poet uses the words "gale" and "storm" as metaphors. What might these words represent?

- A. hard or painful times
- B. pleasant times
- C. times of bad weather
- D. times of success and growth

3. Hope is important and helpful in times of pain, sorrow, or difficulty.

Which lines from the poem best supports this statement?

- A. Lines 5-8
- B. Lines 11-12
- C. Lines 1-2
- D. Lines 3-4

4. The poet says that hope "sings the tune without the words." Why might the poet have written that the tune has no words?

- A. to indicate that people who are always hopeful are also often forgetful
- B. to emphasize that hope does not need to be put into words to be felt
- C. to suggest that people are usually unable to understand the feeling of hope
- D. to point out that it is very difficult for people to express whether they feel hopeful or not

5. What is the theme of this poem?

- A. People need to work hard in order to maintain hope at all times.
- B. Hope can survive through even the toughest times.
- C. Hope is able to keep people warm even in the coldest, stormiest lands.
- D. Without hope, people would be much more sensible and realistic.

6. Read these lines from the poem:

And sore must be the storm  
That could abash the little bird  
That kept so many warm.

What does the word "abash" most nearly mean, based on these lines?

- A. to confuse
- B. to support
- C. to praise
- D. to silence

7. Read these lines from the poem:

And sore must be the storm  
That could abash the little bird  
That kept so many warm.

I've heard it in the chilliest land,  
And on the strangest sea;  
Yet, never, in extremity,  
It asked a crumb of me.

What does "it" refer to in the last line?

- A. the little bird
- B. the storm
- C. the chilliest land
- D. the strangest sea

8. According to the poet, where does hope live?

9. Read these lines from the poem:

And never stops at all,  
  
And sweetest in the gale is heard;  
And sore must be the storm  
That could abash the little bird  
That kept so many warm.

Based on these lines, what is an important characteristic of hope, or "the little bird"?

10. Read these final four lines of the poem:

I've heard it in the chillest land,  
And on the strangest sea;  
Yet, never, in extremity,  
It asked a crumb of me.

Describe the speaker's personal experience with hope. Use evidence from the poem to support your description.

1. What does the poet describe as the thing with feathers?

- A. soul
- B. life
- C. song
- D. hope**

2. The poet uses the words "gale" and "storm" as metaphors. What might these words represent?

- A. hard or painful times**
- B. pleasant times
- C. times of bad weather
- D. times of success and growth

3. Hope is important and helpful in times of pain, sorrow, or difficulty.

Which lines from the poem best supports this statement?

- A. Lines 5-8**
- B. Lines 11-12
- C. Lines 1-2
- D. Lines 3-4

4. The poet says that hope "sings the tune without the words." Why might the poet have written that the tune has no words?

- A. to indicate that people who are always hopeful are also often forgetful
- B. to emphasize that hope does not need to be put into words to be felt**
- C. to suggest that people are usually unable to understand the feeling of hope
- D. to point out that it is very difficult for people to express whether they feel hopeful or not

5. What is the theme of this poem?

- A. People need to work hard in order to maintain hope at all times.
- B. Hope can survive through even the toughest times.**
- C. Hope is able to keep people warm even in the coldest, stormiest lands.
- D. Without hope, people would be much more sensible and realistic.

6. Read these lines from the poem:

And sore must be the storm  
That could abash the little bird  
That kept so many warm.

What does the word "abash" most nearly mean, based on these lines?

- A. to confuse
- B. to support
- C. to praise
- D. to silence**

7. Read these lines from the poem:

And sore must be the storm  
That could abash the little bird  
That kept so many warm.

I've heard it in the chilliest land,  
And on the strangest sea;  
Yet, never, in extremity,  
It asked a crumb of me.

What does "it" refer to in the last line?

- A. the little bird
- B. the storm
- C. the chilliest land
- D. the strangest sea

8. According to the poet, where does hope live?

Hope lives in a person's soul, according to the poet.

*Answer key*

9. Read these lines from the poem:

And never stops at all,

And sweetest in the gale is heard;

And sore must be the storm

That could abash the little bird

That kept so many warm.

Based on these lines, what is an important characteristic of hope, or "the little bird"?

Answers may vary slightly. Students may note that an important characteristic of hope is that it never stops at all. It is resilient even in the face of gales and storms, or pain and sorrow. Students may otherwise note that an important characteristic of hope is that it keeps many people "warm," or supports them through difficult times.

10. Read these final four lines of the poem:

I've heard it in the chilliest land,  
And on the strangest sea;  
Yet, never, in extremity,  
It asked a crumb of me.

Describe the speaker's personal experience with hope. Use evidence from the poem to support your description.

Answers may vary, but should be based in the poem. Students should recognize that the speaker clearly has had hope even in strange, unfamiliar, or adverse situations ("on the strangest sea" and "in the chilliest land"). The speaker says that hope has never asked "a crumb" of her, which indicates that she has never had to sacrifice something to maintain hope, even in the hardest of times; this shows that the speaker might be a naturally hopeful or optimistic person. Students may also infer that in the poem as a whole, the speaker was describing her positive personal experience with hope - this would indicate that in the poet's experience, hope has supported her through many "storms" and "gales."

# HOW TO USE THIS BOOK

*180 Days of Math for 7<sup>th</sup> Grade* offers teachers and parents a full page of daily mathematics practice activities for each day of the school year.

## Easy to Use and Standards-Based

These activities reinforce grade-level skills across a variety of mathematical concepts. The questions are provided as a full practice page, making them easy to prepare and implement as part of a classroom morning routine, at the beginning of each mathematics lesson, or as homework.

Every *180 Days of Math for 7<sup>th</sup> Grade* practice page provides 12 questions, each tied to a specific mathematical concept. Students are given the opportunity for regular practice in each mathematical concept, allowing them to build confidence through these quick standards-based activities.

Question	Mathematics Concept	NCTM Standards
1	Addition or Subtraction	Understands numbers, ways of representing numbers, relationships among numbers, and number systems; Understands the meanings of operations and how they relate to one another; Computes events and makes reasonable estimates
2	Multiplication	
3	Division	
4	Place Value or Number Sense	
5	Fractions, Decimals, and Percents	Works flexibly with fractions, decimals, and percents to solve problems; Compares and orders fractions, decimals, and percents efficiently; Understands the meaning and effects of arithmetic operations with fractions and decimals
6	Order of Operations and Patterns	Understands the meanings of operations and how they relate to one another
7	Algebra and Algebraic Thinking	Understands patterns, relations, and functions; Represents and analyzes mathematical situations and structures using algebraic symbols
8		
9	Measurement	Understands measurable attributes of objects and the units, systems, and processes of measurement; Applies appropriate techniques and formulas to determine measurements
10	Geometry	Uses visualization and spatial reasoning to solve problems; Analyzes characteristics and properties of two- and three-dimensional geometric shapes
11	Data Analysis/Probability	Selects and uses appropriate statistical methods to analyze data; Understands and applies basic concepts of probability
12	Word Problem/Logic Problem or Mathematical Reasoning	Solves problems that arise in mathematics and in other contexts; Applies and adapts a variety of appropriate strategies to solve problems

Standards are listed with the permission of the National Council of Teachers of Mathematics (NCTM). NCTM does not endorse the content or validity of these alignments.

NAME: \_\_\_\_\_

**DIRECTIONS**

Solve each problem.

**1.** Calculate the sum of 28, 39, and 57.

\_\_\_\_\_

**2.**  $91 \times 5 =$  \_\_\_\_\_

**3.**  $463 \div 5 =$  \_\_\_\_\_

**4.** What is the value of the digit 4 in 34,600?

\_\_\_\_\_

**5.**  $\frac{7}{12} + \frac{1}{6} =$  \_\_\_\_\_

**6.**  $64 \div (4 \times 2) \div 8 =$  \_\_\_\_\_

**7.**  $147 \div 7 = 3 \times$

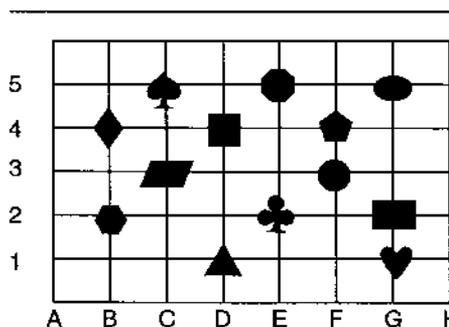
**8.** Find  $h$ .  $h \times 7 = 77$

$h =$  \_\_\_\_\_

**9.** What is the time two hours after 11:01 P.M.?

\_\_\_\_\_

**10.** What shape is located at (B,4)?



**11.** Record the data in the chart.  
The Kims drink 3 gallons of milk each week and 1 gallon of juice. The Bergs drink 2 gallons of juice and 4 gallons of milk. Both families drink 4 gallons of water each week.


**12.** Caleb has a marble collection with 132 marbles. Half of the marbles are cat's-eyes, 25% are mixed colors, and the rest are solid black. How many marbles are solid black?

\_\_\_\_\_

**SCORE**

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

\_\_\_\_ / 12

Total

NAME: \_\_\_\_\_

**DIRECTIONS** Solve each problem.

SCORE

1. (Y) (N)

**1.**  $97 - 285 = \underline{\hspace{2cm}}$

**8.** Find  $n$ .  $\frac{100}{n} = 5$

2. (Y) (N)

**2.** 
$$\begin{array}{r} 16 \\ \times 20 \\ \hline \end{array}$$

$n = \underline{\hspace{2cm}}$

3. (Y) (N)

**3.**  $267 \div 7 = \underline{\hspace{2cm}}$

**9.** 1.5 gallons =  $\underline{\hspace{2cm}}$  quarts

4. (Y) (N)

**4.** Write the expanded notation for the number 1,350,607.

**10.** To make this pattern, has Tile A been *reflected*, *translated*, or *rotated*?

5. (Y) (N)

\_\_\_\_\_

\_\_\_\_\_



Tile A

6. (Y) (N)

**5.** Write  $2\frac{5}{8}$  as an improper fraction.

\_\_\_\_\_

7. (Y) (N)

**6.** Complete the table. Look for a pattern and write the rule.

Number of Decagons	1	2	3	4	5
Number of Sides	10				

8. (Y) (N)

\_\_\_\_\_

9. (Y) (N)

\_\_\_\_\_

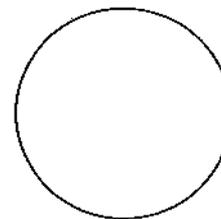
10. (Y) (N)

**7.** Distribute

$5(b + 4) =$

\_\_\_\_\_

**11.** Draw a spinner that has an equal chance of landing on a 1, 2, or 3.



11. (Y) (N)

**12.** Rick practices piano every day for 35 minutes. How many hours and minutes does he practice in a 30-day month?

\_\_\_\_\_

12. (Y) (N)

\_\_\_ / 12

Total

NAME: \_\_\_\_\_

**DIRECTIONS**

Solve each problem.

**1.** Add 170 and 47.  
\_\_\_\_\_

**2.**  $5 \times 30 =$  \_\_\_\_\_

**3.**  $5 \overline{)285}$

**4.** Is 45,368 closer to 45,000 or 46,000?  
\_\_\_\_\_

**5.** Write 0.84 as a percentage.  
\_\_\_\_\_

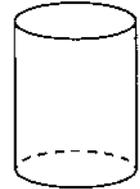
**6.**  $64 \div (4 \times 2 \div 8) =$  \_\_\_\_\_

**7.**  $196 - 47 = \square + 52$

**8.** Find  $y$ .  $86 - y = 45$   
 $y =$  \_\_\_\_\_

**9.** Calculate the perimeter of a square with 3.5-m sides.  
\_\_\_\_\_

**10.** Name the solid shape.  
\_\_\_\_\_



**11.** If you roll a 6-sided die, what is the probability you will get a number less than 4?  
\_\_\_\_\_

**12.** Carole bought a dress on sale for \$27. The original cost of the dress was \$36. What percent was she given off the original price?  
\_\_\_\_\_

SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

\_\_\_\_ / 12

**Total**

NAME: \_\_\_\_\_

**DIRECTIONS**

Solve each problem.

SCORE

1. (Y) (N)

**1.**  $16 + 27 + 34 =$  \_\_\_\_\_

2. (Y) (N)

**2.** Multiply 5 and 30.

3. (Y) (N)

\_\_\_\_\_

4. (Y) (N)

**3.**  $6 \overline{)346}$

5. (Y) (N)

6. (Y) (N)

**4.** Calculate the square root of 49.

\_\_\_\_\_

7. (Y) (N)

8. (Y) (N)

**5.** Round 5.25 to the nearest whole number.

\_\_\_\_\_

9. (Y) (N)

10. (Y) (N)

**6.**  $12 - 20 \times 5 =$  \_\_\_\_\_

11. (Y) (N)

**7.**  $234 + \square = 299$

12. (Y) (N)

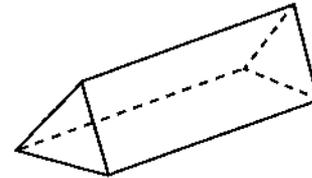
**8.** Distribute.

$4(x - 21) =$  \_\_\_\_\_

**9.** Find the average speed when 200 km are traveled in 4 hours.

\_\_\_\_\_

**10.** Complete the chart for the shape.



Name the figure.	
How many surfaces?	
How many vertices?	
Does it stack or roll?	
Is it a plane shape or a solid shape?	

**11.** The numbers 20 through 30 were written on individual cards and placed in a bag. If you take one card from the bag, what is the probability that it will be a multiple of 5?

\_\_\_\_\_

**12.** Which fraction added to  $\frac{8}{15}$  will make 1 whole?

\_\_\_\_\_

\_\_\_ / 12

Total

NAME: \_\_\_\_\_

**DIRECTIONS**

Solve each problem.

1.  $84 - 56 = \underline{\hspace{2cm}}$

2. 
$$\begin{array}{r} 50 \\ \times 6 \\ \hline \end{array}$$

3.  $567 \div 8 = \underline{\hspace{2cm}}$

4. What is the number 100 after 3,875?  
  
\_\_\_\_\_

5. 60% of 30 is \_\_\_\_\_.

6. Write the next number in the sequence. 3,096; 3,146; 3,196;  
  
\_\_\_\_\_

7.  $\frac{7}{10} = \square \%$

8. Find  $v$ .  $v + 19.9 = 20$

$v = \underline{\hspace{2cm}}$

9. What is the volume of a cup (in  $\text{cm}^3$ ) that holds 500 mL?  
  
\_\_\_\_\_10. How many total degrees are in two right angles?  
  
\_\_\_\_\_

11. What is the median of this set of data?

523, 491, 501, 479, 512  
  
\_\_\_\_\_12. Cookies cost \$6.00 for a dozen. What is the cost for 8 cookies?  
  
\_\_\_\_\_SCORE

1. (Y) (N)

2. (Y) (N)

3. (Y) (N)

4. (Y) (N)

5. (Y) (N)

6. (Y) (N)

7. (Y) (N)

8. (Y) (N)

9. (Y) (N)

10. (Y) (N)

11. (Y) (N)

12. (Y) (N)

\_\_\_\_ / 12

**Total**

# ANSWER KEY (cont.)

## Day 131

- 124
- 455
- $92\frac{3}{5}$
- 4 thousands or 4,000
- $\frac{9}{12}$  or  $\frac{3}{4}$
- 1
- 7
- 11
- 1:01 A.M.
- rhombus
- 

Family	Milk	Juice	Water
Kims	3	1	4
Bergs	4	2	4

- 33 marbles

## Day 132

- 188
- 320
- $38\frac{1}{7}$
- $1,000,000 + 300,000 + 50,000 + 600 + 7$
- $\frac{21}{8}$
- Number of Sides: 20, 30, 40, 50;  
Rule: Multiply the number of decagons by 10 to get the number of sides.
- $5b + 20$
- 20
- 6
- reflected
- 3 equal sections labeled with 1, 2, and 3.
- 17 hours and 30 minutes

## Day 133

- 217
- 150
- 57
- 45,000
- 84%
- 64
- 97
- 41
- 14 m
- cylinder
- $\frac{3}{6}$  or  $\frac{1}{2}$
- 25%

## Day 134

- 77
- 150
- $57\frac{2}{3}$
- 7 or -7
- 5
- 88
- 65
- $4x - 84$
- 50 km per hour
- triangular prism; 5; 6; stack; solid
- $\frac{3}{11}$
- Answers may vary.  
Possible answer:  $\frac{7}{15}$

## Day 135

- 28
- 300
- $70\frac{7}{8}$
- 3,975
- 18
- 3,246
- 70
- 0.1
- $500 \text{ cm}^3$
- $180^\circ$
- 501
- \$4.00

## Day 136

- 130
- 2,400
- 66
- positive number
- 4
- 40
- $4\frac{1}{4}$
- $g - 49$
- 09:26
- yes
- yes
- \$6.00

## Day 137

- 294
- 120
- $115\frac{1}{2}$  or 115.5
- 1, 3, 9, 27
- $\frac{11}{4}$
- 14
- 518
- $q = 192$
- 3,900 g
- 12 edges
- $\frac{6}{11}$
- 1, 2, 3, 5, 6, 10, 15, 30

## Day 138

- 114
- 2,000
- 48
- 12, 14, 15, 16, 18
- $\frac{8}{3}$
- 8
- 5
- $52 - 13h$
- 24 months
- 5 sides
- $\frac{28}{35}$  or  $\frac{4}{5}$
- 1 cup

## Day 139

- 317
- 1,200
- $153\frac{2}{3}$
- no
- 3.58
- 15
- 60
- 14
- 9.3 km
- 2.28 m
- 50 times
- 9 people

## Day 140

- 101
- 36,000
- 132
- 1,248
- 5
- 1,860
- $\frac{5}{10}$  or  $\frac{1}{2}$
- 8
- 3 cm
- reflex
- \$105
- $12 \div 4 + 3 = 6$ ;  
 $15 \div 5 + 3 = 6$

## Day 141

- 31
- 76
- $47\frac{1}{3}$
- hundreds
- .55
- 23
- 120
- 216
- 4
- $7.5 \text{ cm}^2$
- Wednesday
- rectangular prism

## Are Public Curfews Fair?

### Should teens be allowed to stay out, or forced to go home?

Do your parents give you a *curfew*—a time you have to be in at night? Or do town officials make that call for them?

People are debating public curfews in and out of court. The U.S. Supreme Court has avoided it so far. But it might not be able to for much longer.

Whom do curfews affect? And what do curfew laws say? What happens to teens who violate them?

Curfews apply to *minors* (anyone under 18). The laws vary. Most curfews are 10 p.m. during the week and 12 midnight on Fridays and Saturdays.

Police often question teens who are out past curfew. Those who have broken the curfew are taken home or to the police station. From there, teens may call their parents.

Some minors receive fines of up to \$500 for repeat offenses. Others may have to do work for their community.

Does that seem fair? Read the arguments below. Then decide.

### Yes! Public Curfews Are Fair!

Cities and towns should have curfews. "[A curfew] allows less time to get in trouble with gangs, alcohol, drugs, and things like that," said one teen.

Curfews lower the number of teens involved in crimes. From 1995 to 1999, the number of minors arrested for violent crimes dropped 23 percent. Experts credit public curfews for the drop in crime.

Curfews don't take away teens' rights. Minors don't have the same rights as adults. If a movie theater can keep minors out of R-rated movies, why can't a law keep minors from staying out late?

Curfews help parents and teens. Some teens don't listen to their parents. Public curfews give parents some extra help. They make sure teens are back at home by a certain time.

### No! Public Curfews Aren't Fair!

Cities and towns should not have curfews. "It is unfair to punish good kids who are out trying to make something of themselves when only a small percentage of young people are committing crimes," said one parent.

Curfews don't lower teen crime. Studies of curfews in Tulsa, Oklahoma, showed that arrests rose despite the curfew law. Curfews don't stop teens from getting into trouble. Teens who want to commit a crime won't let a curfew stop them.

Our country is based on freedom. Curfews violate a minor's rights. The First Amendment gives all people the right to gather in groups. Shouldn't that law apply to minors also?

Parents are responsible for their underage children. It's not the law's place to be another parent. It's up to parents to choose a curfew.

Name: \_\_\_\_\_ Date: \_\_\_\_\_

1. Which of the following is a possible consequence for a teen who is repeatedly out past curfew?

- A. The teen might have to be home by 10 p.m. during the week.
- B. The teen might receive a fine of up to \$500.
- C. The teen might be taken to the police station.
- D. The teen might have to call their parents.

2. Which of the following accurately states one argument for and one argument against curfews for minors?

- A. One argument for curfews is that curfews lower the teen crime rate. One argument against curfews is that parents, not the law, should decide about curfews for their children.
- B. One argument for curfews is that curfews do not take away the rights of minors. One argument against curfews is that parents need curfews to help keep their children safe.
- C. An argument for curfews is that minors should be fined for breaking curfew. One argument against curfews is that minors should listen to their parents.
- D. One argument for curfews is that curfews do not help with the problem of teen crime. One argument against curfews is that curfews violate the rights of minors.

3. It can be inferred from the passage that

- A. some teens have the same rights as adults
- B. many teens do not listen to their parents
- C. some teens do not follow the curfew laws
- D. many teens appreciate having a curfew

4. Read the following sentences and answer the question:

"Whom do curfews affect? And what do curfew laws say? What happens to teens who violate them?"

What does the word **violate** mean?

- A. to question someone about their activities
- B. to do something that isn't allowed
- C. to stay out very late at night
- D. to help parents raise their children

5. This passage deals primarily with

- A. police officers and the work that they do
- B. movie theaters and the R-rated movies that they show
- C. curfew laws and whether or not they are a good thing
- D. parents and the best way to raise children

6. What are two arguments in favor of curfews?

---

---

---

7. Why might a town government decide to make a law enforcing a curfew for minors?

---

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8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Some minors receive fines of up to \$500 for repeat offenses \_\_\_\_\_ others may have to do work for their community.

- A. so
- B. and
- C. after
- D. therefore

1. Which of the following is a possible consequence for a teen who is repeatedly out past curfew?

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- B. movie theaters and the R-rated movies that they show
- C. curfew laws and whether or not they are a good thing**
- D. parents and the best way to raise children

6. What are two arguments in favor of curfews?

One argument is that curfews reduce the teen crime rate. The other argument is that curfews help parents by making sure teens are home on time. [paragraphs #9, 11]

7. Why might a town government decide to make a law enforcing a curfew for minors?

A town government might make a curfew if the town officials feel that the teens in town are causing a lot of trouble at night.

8. The question below is an incomplete sentence. Choose the word that best completes the sentence.

Some minors receive fines of up to \$500 for repeat offenses \_\_\_\_\_ others may have to do work for their community.

- A. so
- B. and**
- C. after
- D. therefore

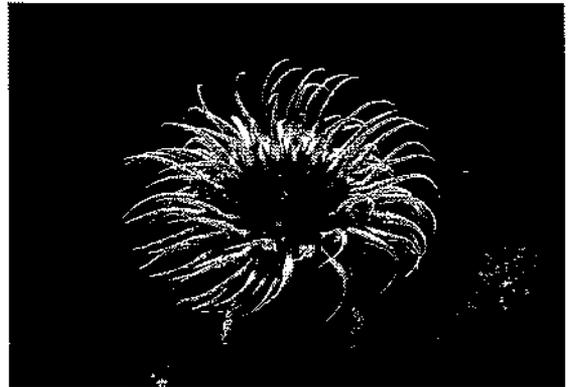


# Reading Science

Name: \_\_\_\_\_ Date: \_\_\_\_\_

## Coral Reefs and Climate Change

- 1 There are many different types of environments on the planet. Often there are many ecosystems within each environment. Ecosystems all contain a mixture of abiotic and biotic factors. The organisms within each ecosystem rely on natural resources in that ecosystem for survival. They are interdependent. Changes in the environment can affect the balance of an ecosystem. Resources include the amount of natural space, food, shelter, and water. Within each ecosystem, resources are limited. Species compete for these resources as they struggle to survive. These are known as limiting factors. Limiting factors affect every level of organization, from organism to ecosystem.



- 2 One of the most diverse ecosystems on the planet is found in the ocean's coral reefs. They are one of the most threatened ecosystems. Why? Life in these ecosystems is changing. Coral reefs are only found in one-tenth of the ocean's area. But over 25% of the ocean's marine species live in coral reef ecosystems. That is a lot of biodiversity for such a small space. Many changes can threaten the balance that holds this ecosystem together. This includes the amount of light, water quality, and sea temperatures. Why are coral reefs so threatened? It is important to first understand what makes a healthy coral reef ecosystem.
- 3 The world's coral reefs are found in certain areas. They are only found in the zone 30 degrees south and 30 degrees north of the equator. Corals need warm, shallow seas to grow. Those warm waters are found in these latitudes. Corals are very small animals. They belong to the phylum *Cnidaria*. This same phylum contains other marine animals, such as jellyfish and sea anemones. They live in very large colonies. When corals reproduce, the young are called polyps. The coral polyps float in the sea. When they reach a solid resting place, they attach to it. Then they make calcium carbonate in their bodies. The structure of the coral reef comes from this hard, internal skeleton. After this, each coral cannot move from its anchor spot. It feeds on passing debris. Its tentacles grab small food particles from the water. As the corals eat, they make more calcium carbonate, building the coral reef.



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- 4 Healthy corals have a symbiotic relationship with one type of algae called zooxanthellae. Over time, the algae and the corals have adapted to work together. The algae lives inside the “skin” of the coral. Through photosynthesis, the algae make sugar from the light that shines through the water. However, water absorbs light, so the seas must be shallow for enough light to reach the algae. The coral can use the sugars produced from photosynthesis. In return, the corals give the algae a home. The coral protects them and helps them reach the light; however, these algae can only live within a very narrow temperature range within the sea. Coral protects more than just algae. Corals and the reefs that they build provide important habitat for many other ocean creatures. The reefs provide shelter and food sources and reduce wave action around the reef.
  
- 5 Ocean plants get energy from the Sun. So do corals, through the zooxanthellae. Other ocean organisms eat corals and other food sources housed on and around the reef. Thus, energy flows from the Sun through all trophic levels, creating a food web. If the corals die, then the entire system is harmed. Unfortunately, a variety of environmental changes can hurt the coral. In some places, the ocean waters near the reef are becoming warmer. In other places, the currents have changed. New currents bring different water temperatures and nutrients to the reefs. Temperature change is not the only problem. In some parts of the ocean, the water near reefs has become more acidic. The zooxanthellae algae cannot live in the acidic water. Sometimes they leave the corals. This is known as “coral bleaching.” The corals cannot survive without their symbiotic partners. As a result, the corals on the reef die. Coral can also get covered so that light cannot reach the zooxanthellae. Soil from erosion can cover the coral. Sometimes the runoff of fertilizers can cause seaweed to overgrow and also cover the coral. As these types of environmental changes happen, the reef structures fall apart. Many marine creatures lose their shelter and food source. Fish and other reef inhabitants are forced to move. This affects the entire balance of the coral reef ecosystem.
  
- 6 People are working to repair and rebuild coral reefs around the world. Many successful artificial reefs have been placed. Some are farther from the equator, outside the normal growth zone. Others are in deeper water, such as off the Texas coast in the Gulf of Mexico. There are two ways to make artificial reefs. The first is used where natural reefs have been damaged or destroyed. The main goal is to restore the environment. Biologists start with pieces of healthy corals. They attach each piece to an artificial substrate, similar to a large metal cage. Within as little as a year, the corals will grow. As they grow, marine animals will return to live in and around the structures. This is a good step toward saving this important ecosystem.
  
- 7 A second type of artificial reef is made by just sinking things to the seafloor. Sometimes this could be the artificial substrate. More often this is a way to reuse items that would be difficult to dispose of otherwise. This includes old drilling rigs and cargo ships. It also includes large chunks of concrete from demolition projects. Coral polyps will attach to the surfaces and begin to grow. Eventually, a reef system will develop. This will benefit the environment by providing a new habitat.



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1. According to paragraph 1, which of the following factors limits the abilities of populations within an ecosystem to survive?
  - A. The frequency of reproduction of each species
  - B. The number of organisms becomes too large
  - C. Availability of space, shelter, food, and water
  - D. Availability of a diversity of species

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2. Corals are related to other commonly found marine animals. What other animals are found in the phylum *Cnidaria*?
  - A. Polyps
  - B. Jellyfish
  - C. Zooxanthellae
  - D. They are not related to other marine animals

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3. What external factors can affect the health of the coral reef ecosystems?
  - A. Rising ocean temperatures
  - B. Changing ocean currents
  - C. Increased acidification of the oceans
  - D. All of the above



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4. The balance of the coral reef ecosystem is being affected by warming oceans, changing ocean currents, and what other external factor?
- A. The acidification of the oceans
  - B. The light that enters the system
  - C. Marine animals leaving the reef
  - D. Not enough information is given
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5. Why are coral reefs important?
- A. Coral reefs house over 25% of marine species.
  - B. Coral reefs provide an important habitat for many ocean creatures.
  - C. Coral reefs create important food webs.
  - D. All of the above
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6. Healthy ecosystems depend on—
- A. a balance of abiotic and biotic factors.
  - B. Coral reefs.
  - C. Zooxanthellae.
  - D. warm oceans.

## Reading Science - Coral Reefs and Climate Change

### Answer Key

1. Availability of space, shelter, food, and water
2. Jellyfish
3. All of the above
4. The acidification of the oceans
5. All the above
6. A balance of abiotic and biotic factors