



# Sixth Grade

## (6)

### **WEEK #2**

English Language Arts

Math

Social Studies

Science

Physical Education & VAPA

## Lesson 10

## Consistency in Style and Tone



## Introduction

When you write, choose a style and tone that suit your purpose and audience. You might choose a formal style and serious tone for a report. For a personal e-mail, you might choose an informal style and humorous tone. Once you've decided on a style and tone, you need to be consistent.

- The words you choose and your sentence patterns form your **style**.

Formal	During meteorological events, animals tend to scatter.
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Informal	It's raining. Look at that mouse run for cover. It's fast!
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- Your tone shows your attitude toward your subject and/or readers. For example, a tone may be serious, playful, humorous, angry, calm, joyful, or sad.

Serious	Some animals seek shelter in and under trees or bushes.
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Playful	Can a lizard use a tree as an umbrella? It sure can!
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## Guided Practice

Read the passage. Then rewrite the underlined sentences to match the style and tone of the rest of the passage.

## Hint

The style and tone of the story are informal and casual. The underlined sentences contain language that is either too poetic or too technical. Replace them with language that matches the story's style and tone.

"Our camping trip is off to a great start," said Dad. We had just begun to unpack. Then crack, sizzle! Lightning flashed through the sky. Thunder made the mountains tremble in fear.

"Run to the car!" yelled Dad. "We'll wait it out there." After an hour, the rain stopped. When we exited the vehicle, we found that our belongings had absorbed a vast amount of moisture!

1 \_\_\_\_\_

\_\_\_\_\_

2 \_\_\_\_\_

\_\_\_\_\_



## Independent Practice

Read the paragraph below. Then answer the questions that follow for numbers 1–4.

### Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number  
Correct

4

(1) Saving our local campground is of great importance. (2) First, it gives kids a bunch of outside stuff to do, like running around by the river. (3) There is also nothing quite like the thrill of snoozing under the stars, outside of the city. (4) I know that building new houses matters, but keeping a space for people to enjoy nature is necessary, too. (5) Can you imagine if this option were taken away? (6) No way, I say!

- 1** What revision of sentence 2 best matches the style and tone of sentence 1?
- A** First, it offers children outdoor exercise, such as hiking.
  - B** First, it allows kids to finally get a chance to run around.
  - C** First, it lets children do stuff, like run around outside.
  - D** First, kids get to run around the river and do other outside stuff.

- 2** Which sentence should be deleted because it introduces a tone that is inconsistent with most of the paragraph?
- A** sentence 1
  - B** sentence 4
  - C** sentence 5
  - D** sentence 6

- 3** Which best replaces the word snoozing in sentence 3 to add a formal style and serious tone to the paragraph?
- A** catching some z's
  - B** falling asleep
  - C** nodding off
  - D** getting some shut-eye

- 4** Which sentence could be added to the paragraph without changing its style or tone?
- A** Nobody gets it!
  - B** We need to stop those pesky builders from taking over!
  - C** They've really got to leave our campground alone.
  - D** We must preserve our local campground!

## Lesson 13

# Using a Dictionary or Glossary



### Introduction

Many words have more than one definition and can serve as more than one part of speech. When you are reading or writing, use a dictionary to check the precise meaning of a word or phrase.

- Words in a **dictionary** appear in alphabetical order. Each entry provides the pronunciation, the part of speech, and the meanings of the word. Sample sentences are often included to clarify meaning.

**account** (ə kount') *n.* **1.** a record of events or time period **2.** money in a bank **3.** worth, importance  
**account for** *v.* **1.** to be the main reason for: *Heavy rain accounted for the flooding.* **2.** to explain: *I can't account for the dog's barking.*

When there is more than one meaning, each definition is numbered.

The abbreviations show the part of speech: *n.* stands for *noun* and *v.* stands for *verb*.

**extract** (ik sträkt') *v.* **1.** to pull out **2.** to obtain or get meaning, pleasure, or information from something **extract** (äk' sträkt) *n.* **3.** an excerpt or part of a text **4.** a flavoring

The pronunciation of the word is in parentheses. For some words, the pronunciation depends on the part of speech.

- A **glossary** is similar to a dictionary. It is an alphabetical list of special words that are used in a book. Each entry defines the word as it is used in that book.



### Guided Practice

**Read the paragraph. Use the entries above to find the meanings of the underlined words and phrases. Write the number of the correct meaning above each word or phrase.**

#### Hint

Identify how a word is used in a sentence before you use the dictionary. If the word is used as a noun, then you should read the definitions given for a noun.

Our museum has an exhibit on Chinese art. The catalog includes extracts from books about the landscape paintings. Many people extract pleasure from viewing these paintings. However, various accounts suggest that these paintings were also used to teach life lessons. If the paintings were used to teach morals, then scholars could account for the wide use of symbols that stand for character traits.





## Independent Practice

For numbers 1–4, use the dictionary entries to answer the questions.

**express** (ɪk sprɛs') v. **1.** to say or state **2.** to communicate ideas or feelings **3.** to squeeze or press something out n. **4.** type of transportation that moves with few or no stops adj. **5.** specific: *I bought these apples for the express purpose of baking a pie.* **6.** stated **7.** moving with few or no stops

**1** What part of speech is express as used in this sentence?

My mother and I took the express train to the museum.

- A** noun
- B** adjective
- C** verb
- D** adverb

**2** Which definition of express best fits this sentence?

One artist painted a gloomy landscape to express the theme of grief and loss.

- A** Definition 2
- B** Definition 3
- C** Definition 5
- D** Definition 6

### Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number

Correct

4

**reflect** (rɪ flɛkt') v. **1.** to bend back light **2.** to show an image, to mirror **3.** to show clearly or reveal: *The novel reflects the writer's unhappiness.* **4.** to consider seriously: *You need to reflect on your actions.* **5.** to bring negative attention to: *The team's rowdiness reflected on the school.*

**3** Which definition best fits reflect as used in this sentence?

Many landscape paintings reflected the artist's mood.

- A** Definition 1
- B** Definition 3
- C** Definition 4
- D** Definition 5

**4** Which definition best fits the way reflect is used in this sentence?

When you view a Chinese landscape painting, reflect on the artist's message.

- A** Definition 2
- B** Definition 3
- C** Definition 4
- D** Definition 5

## Lesson 14

# Using a Thesaurus



### Introduction

You can use a thesaurus to make your writing more precise or interesting. A **thesaurus** provides synonyms and antonyms for particular words.

- A thesaurus lists words in alphabetical order. Each entry gives the part of speech, the definition, and a list of synonyms. Antonyms, if any, are also included.

**bitter** *adj.* **1.** a strong, unpleasant taste: *The white part of a lemon rind is bitter.* **acrid, unpleasant** Antonyms: *sugary, sweet* **2.** harsh and cold: *Winter has been bitter this year.* **rough, severe** Antonyms: *mild, pleasant* **3.** having or showing resentment: *Al felt bitter when he lost his job.* **angry, resentful, sullen** Antonym: *friendly*

**claim** *v.* **1.** to need: *This issue claims our attention.* **deserve, demand, require** **2.** to say that something is true: *Nola claims that bees sleep at night.* **state, declare, insist** Antonym: *deny* *n.* **3.** a statement that something is true: *The ad makes the claim that Brand X is the best flour.* **assertion, allegation, declaration** Antonym: *denial*

When there is more than one meaning, each definition is numbered.

Sometimes there is a sample sentence.

Some words can serve as more than one part of speech.



### Guided Practice

Read the paragraph. Use the thesaurus entries above to answer the questions about the underlined words.

#### Hint

Remember: A *synonym* is similar in meaning to another word. An *antonym* has the opposite meaning of the word.

Nearly 2,600 years ago, people in Mexico and Central America drank a bitter chocolate drink, which they made from cocoa beans. Some scholars claim that people drank chocolate even longer ago.

- 1 Which words are synonyms of *claim* as used in the paragraph?

\_\_\_\_\_

- 2 Which word is an antonym of *claim*? \_\_\_\_\_

- 3 Which words are synonyms of *bitter* as used in the paragraph?

\_\_\_\_\_

- 4 Which words are antonyms of *bitter*? \_\_\_\_\_



## Independent Practice

For numbers 1–4, read the sentence. Then use the thesaurus entry to answer the question.

**significant** *adj.* 1. expressing a meaning: *Dad gave Lee and Arlo a significant glance when they started to argue.* **meaningful, informative** Antonym: *meaningless* 2. having influence: *Thu has a significant job with the Government.* **important** Antonyms: *insignificant, unimportant*

**1** As the food of rulers, gods, and everyday people, chocolate was significant for the Maya.

Which is a synonym for significant as it is used above?

- A** meaningful
- B** unimportant
- C** insignificant
- D** meaningless

**permit** *v.* 1. to allow to do something: *I'll permit you to pick plums.* **allow, authorize** Antonyms: *forbid, prohibit* 2. to be favorable: *We'll have a picnic if the weather permits.* **accommodate, oblige** *n.* 3. written permission: *The contractor got a permit to build a home.* **license, permission**

**2** The Aztecs, however, would permit only certain people to drink it.

Which is an antonym for permit as it is used above?

- A** license
- B** allow
- C** forbid
- D** oblige

### Answer Form

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

Number

Correct

4

**powerful** *adj.* 1. physically strong: *The oxen are powerful.* **strong, mighty** Antonyms: *weak, frail* 2. able to influence: *Leaders are powerful people.* **high-ranking, influential** Antonym: *low-ranking*

**3** Only the powerful members of Aztec society drank the sacred beverage.

Which is a synonym for powerful as it is used above?

- A** high-ranking
- B** powerless
- C** weak
- D** frail

**valuable** *adj.* 1. having monetary worth: *Gold is valuable.* **precious** Antonym: *cheap* 2. having use or importance: *A job teaches you valuable skills.* **useful, worthwhile** Antonym: *worthless*

**4** Cocoa beans were so valuable that the Aztecs used the beans as money.

Which is an antonym for valuable as it is used above?

- A** useful
- B** worthwhile
- C** precious
- D** cheap

# Citing Evidence to Make Inferences

Theme: *Passing Wisdom Down Through the Ages*

Have you heard the story of Pinocchio, the wooden boy who came to life? Each time he lies, his nose grows. Later in the story, Pinocchio says he has been to school, and—*zoink!*—his nose grows. Now, the author doesn't say at this particular point in the story that Pinocchio lied. But you can make an **inference**—a conclusion based on what you already know and text evidence—that he did.

Good inferences are supported with textual evidence. You can practice this right now.

**Read the paragraph below. Then use the chart to support an inference about the narrator.**

Abraham Lincoln once said, "Whatever you are, be a good one." Easy for him to say—he was good at *everything*. It's nice advice, I guess. Still . . . you can say that you're going to be good at playing the piano. You can even say that you'll perform beautifully at the big recital. You can say that all you want, and you can still forget the notes to your song halfway through and run off the stage in tears. I wonder what Lincoln would have said about that! He probably wouldn't have felt as miserable as I do right now, at the very least.

**The chart below states an inference about the narrator. Complete the chart by writing one more phrase from the paragraph that directly supports the inference.**

What You Know	+	What the Narrator Says	=	Inference
<p>People sometimes feel bad when embarrassed.</p>		<ul style="list-style-type: none"> <li>• "Still . . . you can say that you're going to be good at playing the piano."</li> <li>•</li> </ul>		<p>The narrator has just had a bad experience performing in a piano recital.</p>

When reading, always support your inferences with textual evidence. An unsupported inference won't make your nose grow an inch, but you won't be on your way to a better understanding of the story, either!



Read the first two paragraphs of an ancient Greek myth.

Genre: Myth

# Athena, Arachne, and the Weaving Contest

by Sofia Lillios

Athena, the goddess of wisdom, was an exceptional weaver. She shared her knowledge with humans, as long as they consistently showed her their deepest gratitude. Athena’s most talented student was a young woman named Arachne.

Each day, Athena and Arachne sold their creations at a country market, and everyone said Arachne’s cloth was incredible. Athena overheard Arachne tell customers she taught herself to weave. Athena cringed as she listened to Arachne’s lies. Then, on one fateful day, Arachne kept bragging to customers that she was the greatest weaver in the world, and that her creations were more beautiful than all the others at the market.

(continued)

**Explore how to answer this question:** “How does Athena feel about Arachne’s bragging? Make an inference about how Athena feels. Support your inference with two details from the text.”

Look for details from the text that hint at how Athena feels about Arachne. One detail is shown in the chart below. Write a second detail next to the second bullet point. Then write down your inference.

What You Know	+	Details from the Text	=	Your Inference
Someone who expects gratitude would likely be upset if she did not receive it.		<ul style="list-style-type: none"> <li>• She shared her knowledge with humans, as long as they consistently showed her their deepest gratitude.”</li> <li>•</li> </ul>		

Use details from the chart to support the inference that Athena is upset about Arachne’s bragging.

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### Close Reading

On page 46, the author says that Athena shares her skills with humans on one condition. **Circle** the phrase stating this condition.

### Hint

The question asks *why* Arachne was turned into a spider, not how.

**Continue reading “Athena, Arachne, and the Weaving Contest.” Use the Close Reading and the Hint to help you answer the question.**

*(continued from page 46)*

An old woman in a cloak smiled and challenged Arachne to a weaving contest, which Arachne gladly accepted. The rules were simple: each would weave one complete tapestry by nightfall, and customers would judge the winner.

Throughout the day, the two sat at looms, weaving furiously. Just before sunset, they finished. Both tapestries were marvelous to behold, but the crowd chose the old woman, for her creation was flawless. “Spin and weave forever without my help, fool,” the old woman suddenly said, and pointing one finger at Arachne, turned her into a spider.

**Circle the correct answer.**

Which sentence best explains why Arachne was turned into a spider?

- A** The old woman had special powers.
- B** Arachne did not show her thanks to Athena.
- C** Athena was disguised as the old woman.
- D** Like Arachne, spiders are good at weaving.



### Show Your Thinking

Look at the answer you chose above. Explain how the details in the story helped you infer why Arachne was turned into a spider.

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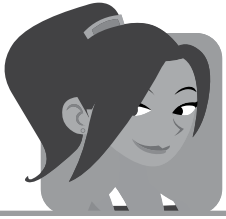
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Read the Native American story. Use the Study Buddy and the Close Reading to guide your reading.

Genre: Native American Legend/Myth



Based on the first paragraph, I think Young Man is a patient and determined person. I'll underline the phrase that tells me about Young Man's character.

### Close Reading

What does Young Man learn on his journey? **Underline** the sentences that explain the lesson of his journey.

The willow tree is kind and wise. **Circle** words and phrases that describe the tree.

## The Wisdom of the Willow Tree

by Wilson Mekashone

- 1 Young Man often felt lost and pondered questions about the purpose of his life. He decided to journey far away, seeking wisdom. He hiked tirelessly for several days.
- 2 One day, the sun blazed down and he was hot, thirsty, and desperate for shade. In the distance, he saw a willow tree and crawled to it. Exhausted, he lay between its roots and had a vivid dream. In the dream, the tree had a wise old face that smiled at him and looked strangely familiar.
- 3 Young Man said to the tree, "I have failed on my journey. I still don't understand how to live my life. I'm thirsty and weary, and I cannot summon the strength to return home."
- 4 The tree then reached down its oldest branch, stroked Young Man gently on the cheek, and said, "Sleep in my shade. I am old and know the value of rest. When you wake up, follow my roots. They are wrinkled but know the way."
- 5 Young Man awoke and followed the tree's enormous roots to a burbling stream. As he drank, he saw his reflection and was shocked when he realized that the face he had seen in the willow's trunk had been his own, only much older.
- 6 He smiled as he now understood that he must age like the wise tree and help others find their way when they feel lost and defeated. Over time, he would gradually become Wise Man, whom people would seek out for help, shelter, and advice. This, he knew, would take much strength and patience.



### Hints

Which choice describes what it takes for Young Man to become Wise Man?

Read each answer choice carefully. Which answer contains a word that describes something people do when they are happy?

How does Young Man feel when he approaches the willow tree? How does the willow tree encounter change Young Man's feelings?

### Use the Hints on this page to help you answer the questions.

- 1** A student makes the following claim about Young Man in “The Wisdom of the Willow Tree.”

Young Man has to develop skills if he wants to become Wise Man. Which sentence from the text best supports this claim?

  - A** “He decided to journey far away, seeking wisdom.”
  - B** “This, he knew, would take much strength and patience.”
  - C** “I am old and know the value of rest.”
  - D** “In the distance, he saw a willow tree and crawled to it.”
  
- 2** Which sentence from the text best shows that Young Man is happy about his encounter with the willow tree?

  - A** “Young Man awoke and followed the tree’s enormous roots to a burbling stream.”
  - B** “As he drank, he saw his reflection and was shocked when he realized that the face he had seen in the willow’s trunk had been his own, only much older.”
  - C** “I’m thirsty and weary, and I cannot summon the strength to return home.”
  - D** “He smiled as he now understood that he must age like the wise tree and help others find their way when they feel lost and defeated.”
  
- 3** Explain how the willow tree’s kindness and wisdom help Young Man. Include at least one detail from the story to support your explanation.

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Read the story. Then answer the questions that follow.

## A Sewing Sensation

by William Rivera

1 Juan sat on the floor of Mom's sewing room with one eye on his soccer magazine and one eye on his mother. His mother was making a wedding dress for their neighbor's daughter, and Juan could see that the dress was going to be beautiful. Juan's mother had designed and sewn dresses for many of the girls in his town, and Juan felt proud that people wanted to wear his mother's creations on their special days.

2 Juan glanced up again from his magazine and asked, "Is your machine running okay, Mom? I think it's making a weird noise."

3 Mom hardly looked up and said, "I think it's working just fine. It's whirring and humming away, just as always."

4 Juan looked disappointed, but he went back to pretending to read his magazine. A few minutes later, he asked, "Do you want me to sew the hem of the dress so that you can rest your fingers? I've watched you do it millions of times, so I could do it if you are really tired." This time, Juan's mother studied Juan's face carefully.

5 "You know, I could use a break," she said, "and we need some new pillowcases. I've got the pattern cut out, and all you'd have to do is stitch up the sides." Juan dropped his magazine and was sitting in Mom's sewing chair in no time. Juan's mom carefully removed the dress she was working on, showed Juan how to thread the sewing machine, and brought him some pillowcases to sew.

6 In his enthusiasm, Juan stomped on the foot pedal and almost sewed over his finger. Then he remembered the patience that his mother always showed, and he slowed down. His seams were straight and even. Juan had a huge smile on his face when he looked over his shoulder at his mom.

7 "I can't believe you sewed that so perfectly on your first try," Mom said, patting Juan on the back. "It took me years of practice to perfect my technique, and you're already a sensation. Why don't you try making a pillow for your room? You can design it, and I'll show you how to make the pattern and cut it out."

8 Juan's face lit up, but then a dark shadow seemed to pass over it. "I think I should probably just go outside and kick the ball with my friends." To himself, he muttered, "What would Anthony think if he saw me at a sewing machine?" as he headed outdoors.

9 Mom didn't say anything as she watched Juan's reaction, but that night at dinner, she and Juan's dad began talking about a local fashion designer who had moved to Dallas and become a very successful clothing designer. Juan pretended he wasn't listening, but the scowl slowly vanished from his face. "Many of the best fashion designers are men," Juan's dad continued. "They can make a lot of money for their designs."

10 After dinner, Juan got out his notebook and began sketching. Then he showed his notebook to his mother, and she nodded approvingly. Together, they headed to the sewing room for pattern tracing paper and scissors.



11 Juan cut out two large round pieces of cloth and began stitching them together, leaving one section open. He turned the cloth inside out, stuffed the opening with cotton batting, and then sewed up the open section. Finally, he used fabric markers to add details. He placed his finished creation on his bed.

12 The next day, Anthony came over to kick the ball with Juan, but it started to rain. The two headed to Juan's room to watch soccer videos instead. When Anthony saw the new oversized soccer ball on Juan's bed, he asked Juan where he got it. Juan grinned at his friend and said, "Mine is one-of-a-kind, but I think I know how to get you one that's almost like it."

Answer the questions. Mark your answers to questions 1–4 on the Answer Form to the right.

**Answer Form**

1 (A) (B) (C) (D)

2 (A) (B) (C) (D)

3 (A) (B) (C) (D)

4 (A) (B) (C) (D)

**Number  
Correct** **4**

**1** Juan does not have a lot of experience with sewing. Which sentence from the passage is the **best** evidence of this claim?

- A** "Juan glanced up again from his magazine and asked, 'Is your machine running okay, Mom? I think it's making a weird noise.'"
- B** "'I can't believe you sewed that so perfectly on your first try,' Mom said, patting Juan on the back."
- C** "To himself, he muttered, 'What would Anthony think if he saw me at a sewing machine?' as he headed outdoors."
- D** "'Many of the best fashion designers are men,' Juan's dad continued."

**2** Juan is very excited about learning to sew. Which of the following sentences from the passage **best** supports this statement?

- A** "Juan felt proud that people wanted to wear his mother's creations on their special days."
- B** "Juan sat on the floor of Mom's sewing room with one eye on his soccer magazine and one eye on his mother."
- C** "Juan had a huge smile on his face when he looked over his shoulder at his mom."
- D** "Then he remembered the patience that his mother always showed, and he slowed down."



**3** Which detail **best** supports the idea that Juan’s mother encourages her son’s interests?

- A** She tells him that her sewing machine doesn’t require fixing.
- B** She gives him some pillowcases to sew on his own.
- C** She sends him outside to play ball instead of sewing.
- D** She gives him a notebook for sketching and drawing.

**4** What is one reason Juan chooses to play soccer with his friends instead of continuing to sew?

- A** He knew that he needed to practice if he wanted to improve his soccer skills.
- B** He did not want his friends to think he was rude for keeping them waiting.
- C** He thought that his father would not approve of his interest in sewing.
- D** He was concerned that his friends might make fun of his sewing talent.

**5** Juan seems somewhat embarrassed about his strong interest in sewing. Write a paragraph in which you agree or disagree with that statement. Use at least **two** details from the story to support your answer.

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 **Self Check** *Go back and see what you can check off on the Self Check on page 43.*

Read the story. Then answer the questions that follow.

# Work Smarter, Not Harder

by Trevor Jackson

1 Kari wiped sweat from her forehead and stuck the shovel back into the haystack-sized pile of peppermint snow. It wasn't exactly snow. It was way too warm for it to be frozen water. The one time she licked off some that fell on her hand, she learned that it definitely didn't taste like peppermint. More like blended asparagus. But the mountain of powdery mush was definitely white with streaks of red swirling up through it. And Kari had to move it all off the wide green field and onto the dirt track around the field. All under the withering gaze of two suns.

2 It was her third day attempting to move the mush. Each day she worked as fast as she could, but she could never quite finish the job before falling down exhausted. She figured that was why each morning the pile was reset, waiting for her to get to work, as if she'd done nothing the day before.

3 Kari wasn't sure exactly how long she had been in Parival, if that's even where she really was. Two weeks? A month? Enough details shared by her uncle Otto matched what she had experienced since she fell down the well in the freezing, snow-filled woods behind her grandparents' house: the feeling of rising and falling at the same time when she first slipped on the well's rock wall, the way she cast two shadows because of the twin suns in the sky, the birdsongs that sounded more like a baby's midnight cries for food. Kari had thought these things were just stories, though, even if Otto always protested that they were true. Now she knew.

4 Kari hadn't been in Parival more than an hour before she'd spotted the big board. It was strung between two branches of an enormous tree, its limbs heavy with a scary-looking red fruit, like giant cherries. The board read, CHORES FOR KARI. She looked around as if there might be someone to explain. The suns beat down on her neck as she stepped closer to examine the chart. Each row gave a title and a brief description followed by a box for a check mark to show Kari had finished.

5 So far each task had proved to be more complicated than it seemed at first. She had to make choices about how she was going to complete each task. A job of collecting and sorting eggs as big as an ostrich's forced her to use some math skills she didn't know would ever come in handy. Another job involved her singing a row of musical notes, but she had to sing them from right to left instead of left to right.

6 Exhausted, Kari stopped shoveling the mush and dropped the shovel on the ground. She stamped her foot and gave a loud groan. She thought again about the tasks she had already completed. Each job was a combination of physical activity and some creative thinking. She had been shoveling for days, but had she applied any original thought to the task?

7 That was it! Kari suddenly remembered a magic trick she had performed at her little brother's birthday party. It had been a sunny day just like this one. Although of course there was only one sun in that sky. Kari's family and friends had all gathered in the backyard around the small patio table. Plates, cups, and plastic forks and spoons rested on top of a white tablecloth. Kari had grabbed the edges, counted to three, and yanked. Everything on top of the tablecloth stayed in one place, but the tablecloth was liberated. Kari's family applauded.

**Go On**

8 The grassy field had felt slippery under her feet while she had worked the last three days. Maybe it wasn't the peppermint snow that had to move, but the field underneath! Kari kicked the shovel aside and ran to the edge of the field. Sure enough, the edge of the field could be lifted. But the tablecloth had been much smaller and lighter than this grassy field. She would just have to try.

9 Kari gave the grass in her hands a shake and watched the pile of peppermint snow. The grass ripple she had shaken grew taller and taller as it moved toward the pile in the center. By the time the wave reached the center, it looked like a giant whale. The whale-shaped hump slid right underneath the pile, carrying it high up into the air. Kari saw her chance and pulled hard on the grass. The entire field came flying at her like it weighed no more than that tablecloth had last summer. She ducked as it flew over her head. Then she watched as the pile of snow came falling down to rest on the dirt that had been underneath the grass field. When it touched dirt, the pile vanished.

10 Kari dusted herself off and headed back to the big chores board; she would get home one way or another.

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**6** In the first paragraph of the story, what does it mean that Kari has to work "under the withering gaze of two suns"?

- A** The two suns disapprove of Kari's efforts.
- B** Kari feels judged by unseen persons in Parival.
- C** Kari is very angry at whoever brought her to Parival.
- D** The light from the suns is extremely hot and bright.

**7** Which sentence signals a major shift in the action of the story?

- A** "The suns beat down on her neck as she stepped closer to examine the chart."
- B** "She stamped her foot and gave a loud groan."
- C** "Kari suddenly remembered a magic trick she had performed at her little brother's birthday party."
- D** "Then she watched as the pile of snow came falling down to rest on the dirt that had been underneath the grass field."

**8**

The following question has two parts. First, answer part A. Then, answer part B.

**Part A**

Why does Kari work to carry out the tasks written on the board?

- A** She likes the challenge of creative problem-solving.
- B** She thinks completing them is her only way out of Parival.
- C** She is bored and doesn't have anything else to do.
- D** She is frightened of the red fruit hanging by the board.

**Part B**

Which sentence from the passage **best** supports the answer to part A?

- A** "It was strung between two branches of an enormous tree, its limbs heavy with a scary-looking red fruit, like giant cherries."
- B** "A job of collecting and sorting eggs as big as an ostrich's forced her to use some math skills she didn't know would ever come in handy."
- C** "Each job was a combination of physical activity and some creative thinking."
- D** "Kari dusted herself off and headed back to the big chores board; she would get home one way or another."

**Go On**

**9** Kari checks to see if the edge of the field can be lifted because she realizes that each previous task she completed required a creative solution. Which of the following sentences from the passage **best** supports this statement?

- A** "She had to make choices about how she was going to complete each task."
- B** "So far each task had proved to be more complicated than it seemed at first."
- C** "She had been shoveling for days, but had she applied any original thought to the task?"
- D** "Kari gave the grass in her hands a shake and watched the pile of peppermint snow."

**10** Which sentence from the story helps to illustrate how little information the narrator shares with the reader?

- A** "The one time she licked off some that fell on her hand, she learned that it definitely didn't taste like peppermint."
- B** "Each day she worked as fast as she could, but she could never quite finish the job before falling down exhausted."
- C** "Kari wasn't sure exactly how long she had been in Parival, if that's even where she really was."
- D** "Kari had thought these things were just stories, though, even if Otto always protested that they were true."
- E** "She looked around as if there might be someone to explain."
- F** "Each row gave a title and a brief description followed by a box for a check mark to show Kari had finished."
- G** "Another job involved her singing a row of musical notes, but she had to sing them from right to left instead of left to right."

One of the themes of this story is that creative thinking can help you solve problems. The following folktale, "The Crow and the Pitcher," also shares this theme. Read the folktale.

### The Crow and the Pitcher

A crow, weak from thirst, was delighted when he spotted a pitcher up ahead. He flew to it as fast as he could, hoping it would be filled with water. To his great disappointment, the pitcher was more than half empty, and through its narrow mouth, he couldn't reach a drop of the water it contained. He thought and thought about what to do and was about to give up. At last, he had an idea. He gathered a pile of stones and dropped them one at a time into the pitcher until the water rose within his reach.

Compare and contrast how "Work Smarter, Not Harder" and "The Crow and the Pitcher" present the theme stated above. Use details from the stories to support your answer.

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***Go On***



Read the passage. Then answer the questions that follow.

# His Wings and Tail

by Olive Thorne Miller

from *The Children's Book of Birds*, Houghton Mifflin Company, New York, 1901

1 A bird's wing does not look much like our arm and hand, yet the bones show that they are the same. The bird has a shoulder, elbow, and wrist, as we have. He even has fingers, though they are so covered up by feathers that one would never know it. He has not so many fingers as we have, and they are not movable like ours.

2 A bird's wing is a wonderful flying-machine, which men have been trying to imitate these many years. It is made of long stiff feathers, which fold down smoothly over one another at his side when he is resting, but can spread in an instant into a broad fan, to beat the air and carry him away.

3 One would not think that feathers could have so much power; but when the wing is spread, the barbs of the feathers hook together with tiny hooks, so small a microscope is needed to see them; and that, together with the edges lapping over each other, makes them almost like one solid surface.

4 Wings are not alike in shape. The wing of a swallow is long and narrow, while that of a hen or grouse is short and round. We can tell by the shape of a wing how a bird flies.



Wing of a Swift

5 A long, narrow, pointed wing shows that the bird has an easy, skimming flight—either he flies great distances, or spends hours at a time on wing.

6 The short round wing shows that a bird has a strong flight for short distances. These wings are found mostly on rather heavy birds, like grouse.



Wing of a Sparrow

7 The longest wings are seen on water birds, such as the petrel and the frigate-bird. The shortest, also, are found among water birds, those who swim more than they fly, as the auks.

8 All the feathers of the wing are named, and it will be well to remember that the long stiff quills are called remiges or “rowers.” These are firmly rooted in the flesh, and are the hardest to pull out. They are the most important to the safety of the bird.

9 Birds have also another use for their wings. They are a strong weapon to defend themselves, or to fight others. A large bird can give a severe blow with his wing, and when pigeons fight, it is said they hold up one wing to protect themselves while they strike at the enemy with the other.

10 Sometimes wings serve as musical instruments. Woodcocks make whistling sounds with their wings as they fly, and mourning doves softly murmuring ones. Ruffed grouse produce with theirs a rolling drum-like effect, and others rattle theirs like castanets.

11 If wings are not used, they slowly get to be smaller and weaker, each generation having them more and more useless, till after a while they are of no use whatever, and the birds cannot fly at all. This has happened, it is supposed, to the ostrich family and to some birds living in the sea.

12 The tail of a bird is formed of an equal number of feathers in pairs, most often twelve. When spread they are the shape of a fan, and when closed they lie over each other with the middle pair on top.

13 The tail feathers are not always of the same length, and that makes a difference in the shape of the end. Sometimes they are even, when the tail is said to be “square.” Sometimes the middle feathers are a little longer than the outside ones, and then it is “rounded” or “pointed.” If the outside feathers are longest, the tail is “forked.”

14 The feathers of the tail are called rectrices, or “rudders,” because they are supposed to be used to steer, or direct the bird’s course in flying. But the tail is used also as a brake to check the speed in alighting.

15 The tail is used more than any other organ to express the emotions. Some birds, like the catbird and thrasher, keep it moving nearly all the time, jerking it this way and that, and tossing it upward.

16 In woodpeckers and swifts the tail feathers are not soft at the end like others, but the stems or shafts project beyond the feathery part, and are stiff like the tail of a sapsucker or sharp like that of the chimney swift. These birds use the tail as a prop to hold them against the tree trunk or chimney wall, and to help them in climbing.

17 Tail feathers are not so strongly rooted as wing feathers, and are easily pulled out. Sometimes, when a man or boy tries to catch a bird by the tail, the bird will escape, leaving the tail in his hand.

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**12** Why does the author include the sentence “A bird’s wing is a wonderful flying-machine, which men have been trying to imitate these many years” (paragraph 2) in the passage?

- A** to describe how birds are different from humans
- B** to illustrate how exciting the study of birds’ wings is
- C** to introduce how different birds fly in different ways
- D** to explain how strong birds’ wing feathers can be

**Go On**

**13** Based on the illustrations and the passage, select **two** sentences that tell how swifts and sparrows are **most likely** different.

- A** Sparrows generally fly shorter distances than swifts do.
- B** Swifts are water birds, whereas sparrows are not.
- C** Sparrows have smooth, easy flights, whereas swifts do not.
- D** Swifts generally flap their wings more than sparrows do.
- E** Sparrows have weak wings, whereas swifts have powerful wings.
- F** Swifts are better able than sparrows to use their wings to glide.

**14** The following question has two parts. First, answer part A. Then, answer part B.

**Part A**

Why are a bird's tail feathers less strongly rooted than its wing feathers?

- A** A bird uses its wing feathers to fly, while it uses its tail feathers to make sounds.
- B** Even birds that cannot fly need their wing feathers to help them swim.
- C** Losing its tail feathers is less dangerous to a bird than losing its wing feathers.
- D** A bird's wing feathers serve a greater variety of purposes than its tail feathers.

**Part B**

Find **two** sentences in the passage with details that support the correct answer to part A. Write those sentences on the lines below.

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**15**

The author states that a bird's wing can be used as a weapon of defense. Which of the following details from the passage **best** supports this statement?

- A** "One would not think that feathers could have so much power; but when the wing is spread, the barbs of the feathers hook together with tiny hooks . . ."
- B** "A large bird can give a severe blow with his wing, and when pigeons fight, it is said they hold up one wing to protect themselves while they strike at the enemy with the other."
- C** "Woodcocks make whistling sounds with their wings as they fly, and mourning doves softly murmuring ones."
- D** "Ruffed grouse produce with theirs a rolling drum-like effect, and others rattle theirs like castanets."

**16**

The following question has two parts. First, answer part A. Then, answer part B.

**Part A**

Read the sentences from paragraph 14 of the passage.

The feathers of the tail are called rectrices, or "rudders," because they are supposed to be used to steer, or direct the bird's course in flying. But the tail is used also as a brake to check the speed in alighting.

As used in the passage, the word "alighting" most closely means

- A** landing
- B** flying
- C** steering
- D** jerking

**Part B**

Which of the phrases from the passage **best** helps the reader understand the meaning of "alighting"?

- A** "feathers of the tail"
- B** "used to steer"
- C** "direct the bird's course"
- D** "as a brake"

**Go On**



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# Reading Discourse Cards


UNDERSTANDING LITERATURE 

How does a character change in the story?

First, the character \_\_\_\_\_.  
Then, the character \_\_\_\_\_.

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5

UNDERSTANDING LITERATURE 

If the story were told by a different character, which details might be different?

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11

UNDERSTANDING LITERATURE 

How do the illustrations help you understand the characters, setting, or events in the story?

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14

UNDERSTANDING INFORMATIONAL TEXTS 

What is the main topic of this text?  
How do you know?

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16


KNOWLEDGE BUILDING 

What does this text help you understand?

Now I know \_\_\_\_\_.

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32


KNOWLEDGE BUILDING 

What does this part of the text make you want to learn more about?

The text makes me want to know \_\_\_\_\_.

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33


KNOWLEDGE BUILDING 

What do you already know about this topic?  
Where have you learned about this topic?

I already know \_\_\_\_\_  
from \_\_\_\_\_.

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37

KNOWLEDGE BUILDING 

What were you surprised to learn from the text?

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40

ACADEMIC TALK  

I'm curious about \_\_\_\_\_.

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70

ACADEMIC TALK  

Can you tell me more about \_\_\_\_\_?

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77



# Tarjetas de discusión

TEXTOS LITERARIOS

¿Cómo cambia un personaje a lo largo de la historia?

Primero, el personaje \_\_\_\_\_.  
Luego, el personaje \_\_\_\_\_.

Ready | Reading Curriculum Associates, LLC 5

TEXTOS LITERARIOS

Si la historia la contara un personaje diferente, ¿qué detalles podrían ser distintos?

Ready | Reading Curriculum Associates, LLC 11

TEXTOS LITERARIOS

¿Cómo te ayudan las ilustraciones a comprender los personajes, el escenario o los sucesos de la historia?

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TEXTOS INFORMATIVOS

¿Cuál es el tema principal de este texto?  
¿Cómo lo sabes?

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ASIMILAR CONOCIMIENTOS

¿Qué te ayuda a entender este texto?

Ahora sé \_\_\_\_\_.

Ready | Reading Curriculum Associates, LLC 32

ASIMILAR CONOCIMIENTOS

¿Sobre qué te anima a aprender más esta parte del texto?

El texto hace que quiera saber \_\_\_\_\_.

Ready | Reading Curriculum Associates, LLC 33

ASIMILAR CONOCIMIENTOS

¿Qué sabes ya sobre este tema?  
¿Dónde has aprendido sobre este tema?

Ya sé \_\_\_\_\_  
Lo aprendí \_\_\_\_\_.

Ready | Reading Curriculum Associates, LLC 37

ASIMILAR CONOCIMIENTOS

¿Qué aprendiste en el texto que te haya sorprendido?

Ready | Reading Curriculum Associates, LLC 40

LENGUAJE ACADÉMICO

Siento curiosidad por \_\_\_\_\_.

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LENGUAJE ACADÉMICO

¿Puedes decirme algo más sobre \_\_\_\_\_?

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# Using Unit Rates to Convert Measurements

► Solve each problem. Show your work.

- 1 Susan has a 12-inch board for constructing a wooden chair. The directions say to use a board that is 29 centimeters long. Is her board long enough to cut?  
(1 inch = 2.54 centimeters)
- 2 Kevin uses 84 fluid ounces of water to make an all-purpose cleaner. The directions call for 4 fluid ounces of concentrated soap for every 3 cups of water. How many fluid ounces of soap should he use? (1 cup = 8 fl oz)
- 3 Shannon test-drives a car in Germany and drives 95 kilometers per hour. What is her speed in miles per hour? (1 kilometer  $\approx$  0.62 mile)
- 4 Keith works 8 hours per day for 5 days per week. Melba works 2,250 minutes each week. Who spends more time at work?

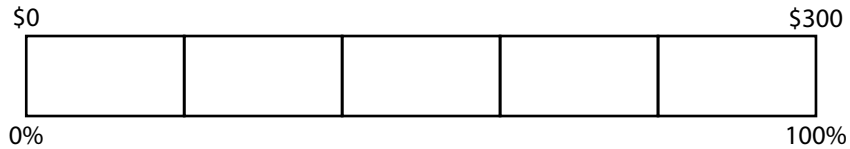


## Using Unit Rates to Convert Measurements *continued*

- 5 Jason runs 440 yards in 75 seconds. At this rate, how many minutes does it take him to run a mile? (1 mile = 1,760 yards)
- 6 Boxes of granola are on sale at a price of 2 for \$4.50. There are 12 ounces of granola in each box. What is the unit price in dollars per pound?
- 7 Sam is delivering two refrigerators that each weigh 105 kilograms. There is an elevator with a weight limit of 1,000 pounds. Can he take both refrigerators on the elevator in one trip? (1 kilogram  $\approx$  2.2 pounds)
- 8 For every 140 feet that Kelly rides on her bicycle, the wheels turn 20 times. About how many times do the wheels turn in 5 miles? (1 mile = 5,280 feet)

# Understanding Percents

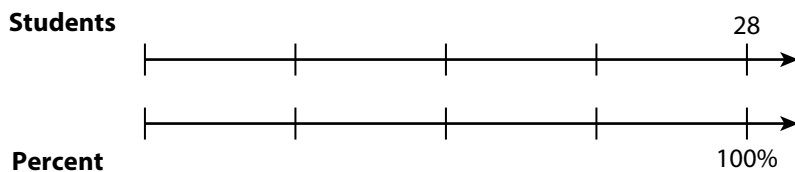
- 1 Emma is saving for a bicycle that costs \$300. This month, she reaches 60% of her goal. Label and shade the bar model to show her progress. How much money has she saved? Explain.



- 2 Justin needs to make 80 illustrations for an art book. He has made 40% of the illustrations. Make a bar model to show his progress. How many illustrations does he still need to make? Explain.

- 3 In a classroom of 28 students, 75% of the students have met their reading goal.

Label the double number line. How many students met their reading goal? What fraction of 28 students met their reading goal? Explain.



# Finding a Percent of a Quantity

► Find the percent of the number. The answers are mixed up at the bottom of the page. Cross out the answers as you complete the problems.

1 40% of 80

\_\_\_\_\_

2 25% of 60

\_\_\_\_\_

3 10% of 90

\_\_\_\_\_

4 50% of 70

\_\_\_\_\_

5 80% of 500

\_\_\_\_\_

6 75% of 80

\_\_\_\_\_

7 90% of 250

\_\_\_\_\_

8 65% of 400

\_\_\_\_\_

9 85% of 800

\_\_\_\_\_

10 55% of 140

\_\_\_\_\_

11 45% of 160

\_\_\_\_\_

12 95% of 180

\_\_\_\_\_

13 70% of 720

\_\_\_\_\_

14 15% of 220

\_\_\_\_\_

15 65% of 200

\_\_\_\_\_

## Answers

9	77	504	72	225
260	171	33	60	35
400	32	130	680	15

# Finding the Whole

► Solve each problem.

1 25% of what number is 13?

\_\_\_\_\_

2 50% of what number is 140?

\_\_\_\_\_

3 10% of what number is 60?

\_\_\_\_\_

4 5% of what number is 12?

\_\_\_\_\_

5 30% of what number is 72?

\_\_\_\_\_

6 70% of what number is 56?

\_\_\_\_\_

7 95% of what number is 57?

\_\_\_\_\_

8 75% of what number is 66?

\_\_\_\_\_

9 85% of what number is 102?

\_\_\_\_\_

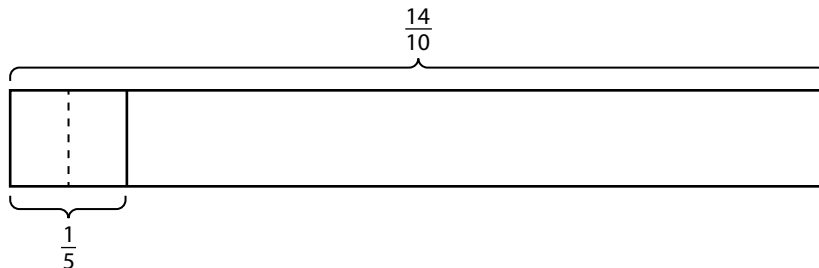
10 45% of what number is 63?

\_\_\_\_\_

11 Explain how you could use 25% of a number to find the number.

# Understanding Division with Fractions

- 1 Complete the bar model to show how many  $\frac{1}{5}$ s make  $\frac{14}{10}$ .



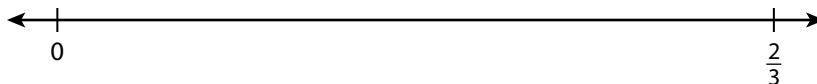
How many  $\frac{1}{5}$ s make  $\frac{14}{10}$ ? \_\_\_\_\_

Complete the equations.

$$\frac{14}{10} \div \underline{\hspace{2cm}} = 7$$

$$\underline{\hspace{2cm}} \cdot \frac{1}{5} = \frac{14}{10}$$

- 2 Use the number line to show  $\frac{2}{3} \div \frac{1}{12}$ .



What is the quotient? \_\_\_\_\_

- 3 Which type of model do you like better, the bar model or the number line? Explain.

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## 10.2 Types of Matter

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### Lesson Objectives

- Describe elements and atoms.
- Describe compounds, molecules, and crystals.
- Define mixture, and identify types of mixtures.

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### Vocabulary

- atom
- colloid
- compound
- crystal
- element
- mixture
- molecule
- solution
- suspension

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### Introduction

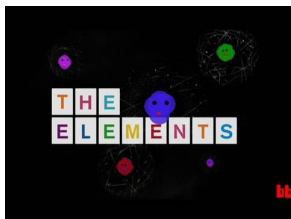
The properties of matter, both physical and chemical, depend on the substances that matter is made of. Matter can exist either as a pure substance or as a combination of different substances.

---

### Elements

An **element** is a pure substance. It cannot be separated into any other substances. There are more than 90 different elements that occur in nature. Some are much more common than others. Hydrogen is the most common element in the universe. Oxygen is the most common element in Earth's crust. **Figure 10.7** shows other examples of elements. Still others are described in the video below.

<http://www.youtube.com/watch?v=d0zION8xjbM> (3:47)




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**MEDIA**

Click image to the left or use the URL below.

URL: <http://www.ck12.org/flx/render/embeddedobject/5064>

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### Helium

Helium is a gas that is lighter than air. That's why it is used in balloons.



### Carbon

Carbon has the ability to combine with many other elements as well as with itself. It can form many different substances. It is the most common element in living things.



### Neon

Neon is a gas that gives off a reddish orange glow when electricity flows through it. It is used in colored lights and signs.



### Iron

Iron is a metal that is very hard and strong. It is the main component of steel.

---

**FIGURE 10.7**

Each of the elements described here has different uses because of its properties.

---

## Properties of Elements

Each element has a unique set of properties that make it different from all other elements. As a result, elements can be identified by their properties. For example, the elements iron and nickel are both metals that are good conductors of heat and electricity. However, iron is attracted by a magnet, whereas nickel is not. How could you use this property to separate iron objects from nickel objects?

## History of Elements

The idea of elements is not new. It dates back about 2500 years to ancient Greece. The ancient Greek philosopher Aristotle thought that all matter consists of just four elements. He identified the elements as earth, air, water, and fire. He thought that different kinds of matter contain only these four elements but in different combinations.

Aristotle's ideas about elements were accepted for the next 2000 years. Then, scientists started discovering the many unique substances we call elements today. You can read when and how each of the elements was discovered at the link below. Scientists soon realized that there are far more than just four elements. Eventually, they discovered a total of 92 naturally occurring elements. <http://www.nndc.bnl.gov/content/origindc.pdf>

## Elements and Atoms

The smallest particle of an element that still has the element's properties is an **atom**. All the atoms of an element are alike, and they are different from the atoms of all other elements. For example, atoms of gold are the same whether they are found in a gold nugget or a gold ring (see **Figure 10.8**). All gold atoms have the same structure and properties.



Gold nugget



Gold ring

FIGURE 10.8

Gold is gold no matter where it is found because all gold atoms are alike.

## Compounds

There are millions of different substances in the world. That's because elements can combine in many different ways to form new substances. In fact, most elements are found in compounds. A **compound** is a unique substance that forms when two or more elements combine chemically. An example is water, which forms when hydrogen and oxygen combine chemically. A compound always has the same components in the same proportions. It also has the same composition throughout. You can learn more about compounds and how they form by watching this video: <http://www.youtube.com/watch?v=-HjMoTthEZ0> (3:53).



### MEDIA

Click image to the left or use the URL below.

URL: <http://www.ck12.org/flx/render/embeddedobject/195>

## Properties of Compounds

A compound has different properties than the substances it contains. For example, hydrogen and oxygen are gases at room temperature. But when they combine chemically, they form liquid water. Another example is table salt,



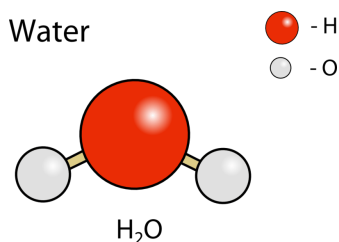
or sodium chloride. It contains sodium and chlorine. Sodium is a silvery solid that reacts explosively with water, and chlorine is a poisonous gas (see **Figure 10.9**). But together, sodium and chlorine form a harmless, unreactive compound that you can safely sprinkle on food.

**FIGURE 10.9**

Table salt is much different than its components. What are some of its properties?

### Molecules and Crystals

The smallest particle of a compound that still has the compound's properties is a **molecule**. A molecule consists of two or more atoms that are joined together. For example, a molecule of water consists of two hydrogen atoms joined to one oxygen atom (see **Figure 10.10**).

**FIGURE 10.10**

Water is a compound that forms molecules. Each water molecule consists of two atoms of hydrogen (white) and one atom of oxygen (red).

Some compounds form crystals instead of molecules. A **crystal** is a rigid, lattice-like framework of many atoms bonded together. Table salt is an example of a compound that forms crystals (see **Figure 10.11**). Its crystals are made up of many sodium and chloride ions. Ions are electrically charged forms of atoms. You can actually watch crystals forming in this video: <http://www.youtube.com/watch?v=Jd9C40Svt5g> .

### Mixtures

Not all combined substances are compounds. Some are mixtures. A **mixture** is a combination of two or more substances in any proportion. The substances in a mixture may be elements or compounds. The substances don't combine chemically to form a new substance, as they do in a compound. Instead, they keep their original properties and just intermix. Examples of mixtures include salt and water in the ocean and gases in the atmosphere. Other examples are pictured in **Figure 10.12**.

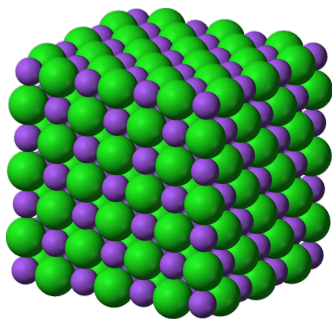


FIGURE 10.11

A crystal of table salt has a regular, repeating pattern of ions.



This lemonade is mixture of water, lemon juice, and sugar.



This rock is a mixture of smaller rocks and minerals.



This salad dressing is a mixture of olive oil, vinegar, herbs, and spices.



This package contains a mixture of seeds of several types of wildflowers.

FIGURE 10.12

All these substances are mixtures. How do they differ from compounds?

### Homogeneous and Heterogeneous Mixtures

Some mixtures are homogeneous. This means they have the same composition throughout. An example is salt water in the ocean. Ocean water everywhere is about 3.5 percent salt.

Some mixtures are heterogeneous. This means they vary in their composition. An example is trail mix. No two samples of trail mix, even from the same package, are likely to be exactly the same. One sample might have more raisins, another might have more nuts.

### Particle Size in Mixtures

Mixtures have different properties depending on the size of their particles. Three types of mixtures based on particle size are described below. **Figure 10.13** shows examples of each type. You can watch videos about the three types of mixtures at these links:

<http://www.youtube.com/watch?v=q96ljVMHYLo> (4:35)



### MEDIA

Click image to the left or use the URL below.

URL: <http://www.ck12.org/flx/render/embeddedobject/5065>

<http://www.youtube.com/watch?v=96OOIL6atXs> (6:13)

Distinguishing Between Solutions and Mechanical Mixtures		
	Solutions	Mechanical Mixtures
Are the parts evenly mixed?	YES	NO
Can you see the separate parts (w/filter)?	NO	YES
Do particles fall to the bottom?	NO	YES
Can you see clearly through this mixture?	YES	

### MEDIA

Click image to the left or use the URL below.

URL: <http://www.ck12.org/flx/render/embeddedobject/5066>

- A **solution** is a homogeneous mixture with tiny particles. An example is salt water. The particles of a solution are too small to reflect light. As a result, you cannot see them. That's why salt water looks the same as pure water. The particles of solutions are also too small to settle or be filtered out of the mixture.
- A **suspension** is a heterogeneous mixture with large particles. An example is muddy water. The particles of a suspension are big enough to reflect light, so you can see them. They are also big enough to settle or be filtered out. Anything that you have to shake before using, such as salad dressing, is usually a suspension.
- A **colloid** is a homogeneous mixture with medium-sized particles. Examples include homogenized milk and gelatin. The particles of a colloid are large enough to reflect light, so you can see them. But they are too small to settle or filter out of the mixture.

## Separating Mixtures

The components of a mixture keep their own identity when they combine. Therefore, they usually can be easily separated again. Their different physical properties are used to separate them. For example, oil is less dense than water, so a mixture of oil and water can be separated by letting it stand until the oil floats to the top. Other ways of separating mixtures are shown in **Figure 10.14** and in the videos below.

- [http://www.youtube.com/watch?v=jWdu\\_RVy5\\_A](http://www.youtube.com/watch?v=jWdu_RVy5_A) (2:30)

**FIGURE 10.13**

These three mixtures differ in the size of their particles. Which mixture has the largest particles? Which has the smallest particles?

**MEDIA**

Click image to the left or use the URL below.

URL: <http://www.ck12.org/fix/render/embeddedobject/653>

- <http://www.youtube.com/watch?v=UsouAIL-YZU> (2:41)

**MEDIA**

Click image to the left or use the URL below.

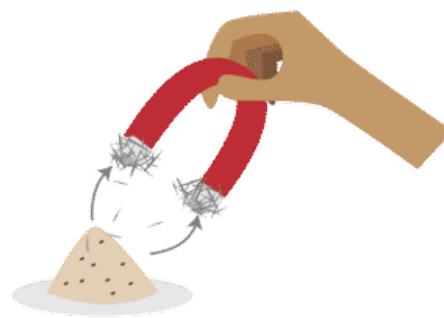
URL: <http://www.ck12.org/fix/render/embeddedobject/5067>



The sun heats salt water in this lake. This causes some of the water to evaporate, leaving the salt behind.



A coffee filter lets water but not coffee grounds pass through into the pot below.



A magnet can be used to separate iron filings from sand. Can you explain why?

**FIGURE 10.14**

Separating the components of a mixture depends on their physical properties. Which physical property is used in each example shown here?

## Lesson Summary

- Elements are pure substances with unique properties. There are more than 100 different elements (92 of which occur naturally). The smallest particles of elements are atoms.
- Compounds are unique substances that form when two or more elements combine chemically. The smallest particles of compounds are molecules. Some compounds form crystals instead.

## Lesson Review Questions

### Recall

1. What is an element? Give three examples.
2. Describe compounds.
3. Identify molecules and crystals.
4. What are mixtures?

### Apply Concepts

5. How could you use water and a coffee filter to separate a mixture of salt and sand?

6. Homogenized milk is a colloid. It has been treated to prevent its different components from separating when it stands. When non-homogenized milk stands, the cream rises to the top because it is less dense than the rest of the milk. Which type of mixture is non-homogenized milk? Explain your answer.

### Think Critically

7. Create a table comparing and contrasting compounds and mixtures. Include an example of each.
8. How are atoms related to molecules?

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### Points to Consider

The properties of matter are not fixed. In fact, matter is always changing.

- What are some ways you have seen matter change?
- What do you think caused the changes?

## ESSENTIAL QUESTION

*How do people adapt to their environment?*



## VOCABULARY

*husbandry*: care of plants and animals  
*secure*: reliable  
*“day job”*: familiar term for work that a person needs to pay everyday bills

*sustenance*: food needed for survival

# Agriculture and Trade

**DIRECTIONS:** Read the excerpt and answer the accompanying questions.

**EXPLORE THE CONTEXT:** Geographer Lydia Mihelic Pulsipher is a cultural-historical geographer. She studies how people and geography affect each other in the present and the past. In this excerpt, she discusses the development of farming.

## SECONDARY SOURCE: BOOK

“Why did agriculture and animal husbandry develop in the first place? Certainly the desire for more secure food resources played a role, but the opportunity to trade may have been just as important. Many of the known locations of agricultural innovation lie near early trade centers. There, people would have had access to new information and new plants and animals brought by traders, and would have needed products to trade. Perhaps, then, agriculture was at first a profitable hobby for hunters and gatherers that eventually, because of the desire for food security and market demands, grew into a “day job” for some—their primary source of sustenance.”

— Lydia Mihelic Pulsipher, *World Regional Geography: Global Patterns, Local Lives*, 2006 C.E.

**1 IDENTIFYING CAUSES** According to the author, why did early humans develop agriculture and animal husbandry?

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**2 ECONOMICS** According to the excerpt, how did the Agricultural Revolution affect trade?

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**3 ANALYZING** How did the excerpt show that the Agricultural Revolution affected even the early humans' thinking?

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**4 INFERRING** Based on this excerpt, how did early humans adapt to their environment?

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## ESSENTIAL QUESTION

*How do people adapt to their environment?*



## VOCABULARY

*anthropology*: the study of human society and culture

*archaeologist*: a person who studies material remains to learn about the past

*seminal*: an important part of a work that influences other parts of the work

*antiquity*: the long-ago past

*Pleistocene*: the geological period from about 2,588,000 to 11,700 years ago

# The Role of Caves

**DIRECTIONS:** Read the following excerpt written by an anthropological archaeologist and answer the accompanying questions.

**EXPLORE THE CONTEXT** Many archaeologists study caves because of the wealth of information they hold in artifacts and paintings. Archaeologist Holley Moyes explores caves as mysterious and sacred places. She has found many skeletons in the darkest parts of caves and became interested in why ancient people offered their sacrifices in these dark spaces.

## SECONDARY SOURCE: BOOK

“For over a century, the idea of living in caves has gripped the imagination of scholars and the general public to the point that, in popular culture, the term cave man has become synonymous with early humans. This is not surprising when we consider that European caves produced some of archaeology’s seminal finds. . . . Much of the earliest evidence for the antiquity of man came from European caves in which Pleistocene mammal bones co-occurred with stone tools.”

—Holley Moyes, *Sacred Darkness: A Global Perspective on the Ritual Use of Caves*, 2012 C.E.

**1 ANALYZING** Why do you think the author establishes the geographic location of the caves in this excerpt?

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**2 CITING TEXT EVIDENCE** What does the author mean by saying caves have “gripped the imagination of scholars and the general public”?

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**3 EXPLAINING** How does the author provide clues to the meaning of the word *seminal*?

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**4 ANALYZING** Based on this excerpt, what is the author’s purpose for writing this book?

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**5 HISTORY** How does this excerpt help the reader know more about human ancestors?

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## **F.I.T.T.**

- Frequency (how often) - exercise 3 times a week
- Intensity (how hard) - your heart rate should be between 120-160 beats per minute.
  - Level 1-little exertion; little perspiration
  - Level 2-able to speak without gasping; increase in heart rate
  - Level 3-sweating, breathing heavily; increase in heart rate
- Time (how long) - 20-30 minutes of continuous aerobic activity
- Type (what) - walking, running, jump roping, push ups, sit ups, planks, workout video, etc

**Please practice social distancing when participating outside in fitness activities.**

## **Physical Activity Log Instructions**

How to fill out the log:

- Write the date
- Write in the type of activity
- Write in the total number of minutes you were active
- Write in the intensity level
  - Level 1-little exertion; little perspiration
  - Level 2-able to speak without gasping; increase in heart rate
  - Level 3-sweating, breathing heavily; increase in heart rate

<b>Date</b>	<b>Activity</b>	<b>Number of Minutes</b>	<b>Intensity Level</b>

# Dance



Since ancient times, people have danced. Cave and rock paintings from as far back as 3300 B.C. show people dancing. People have danced for ritual, for celebration, and also just for fun!

Every culture has its own dance styles, and its own reasons for dancing. In ancient Greece, citizens would dance to honor gods and celebrate events. Ancient Egyptian women danced at funerals to express sadness. It was around Renaissance times that dance became something that people did for enjoyment.

In the 1600s, King Louis XIV of France enjoyed ballet, which helped make it popular with the public. Pretty soon, people were going to the theater to watch people dance, and it became into a true performing art. Now, there are all different styles of dance, from jazz to tap to hip-hop to salsa...and that's just in the Western world. All over the globe, there are countless styles of dancing, and countless reasons for it.

**Make up a dance to a favorite song. Draw each step in the boxes below.**

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**Now make up a dance that tells a story. Pick a favorite book or a famous fairy tale.**

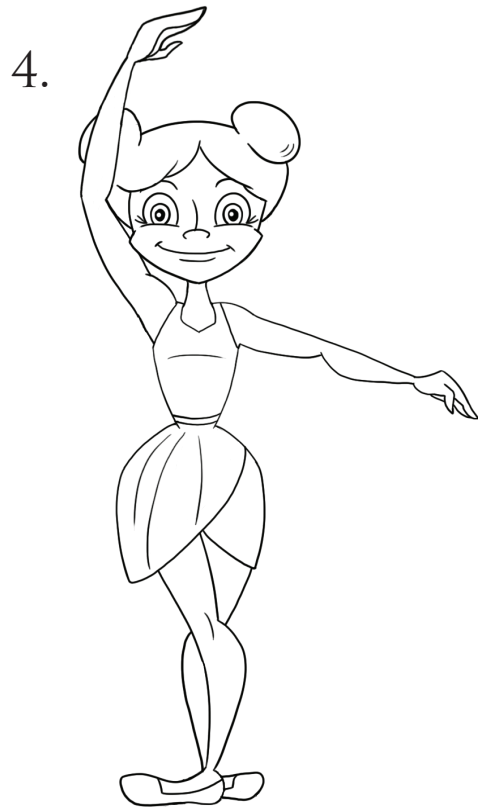
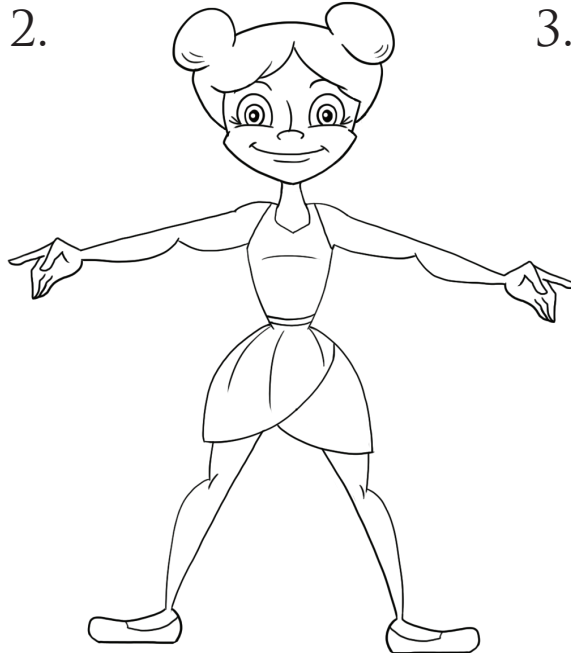
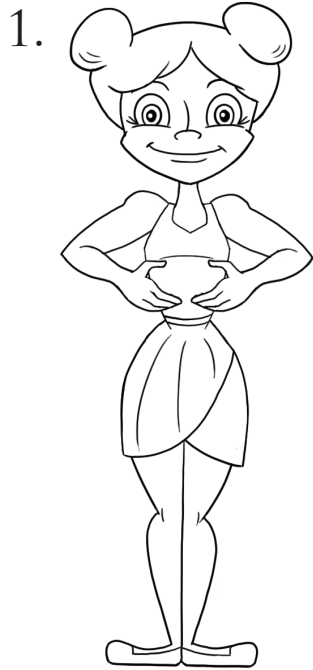
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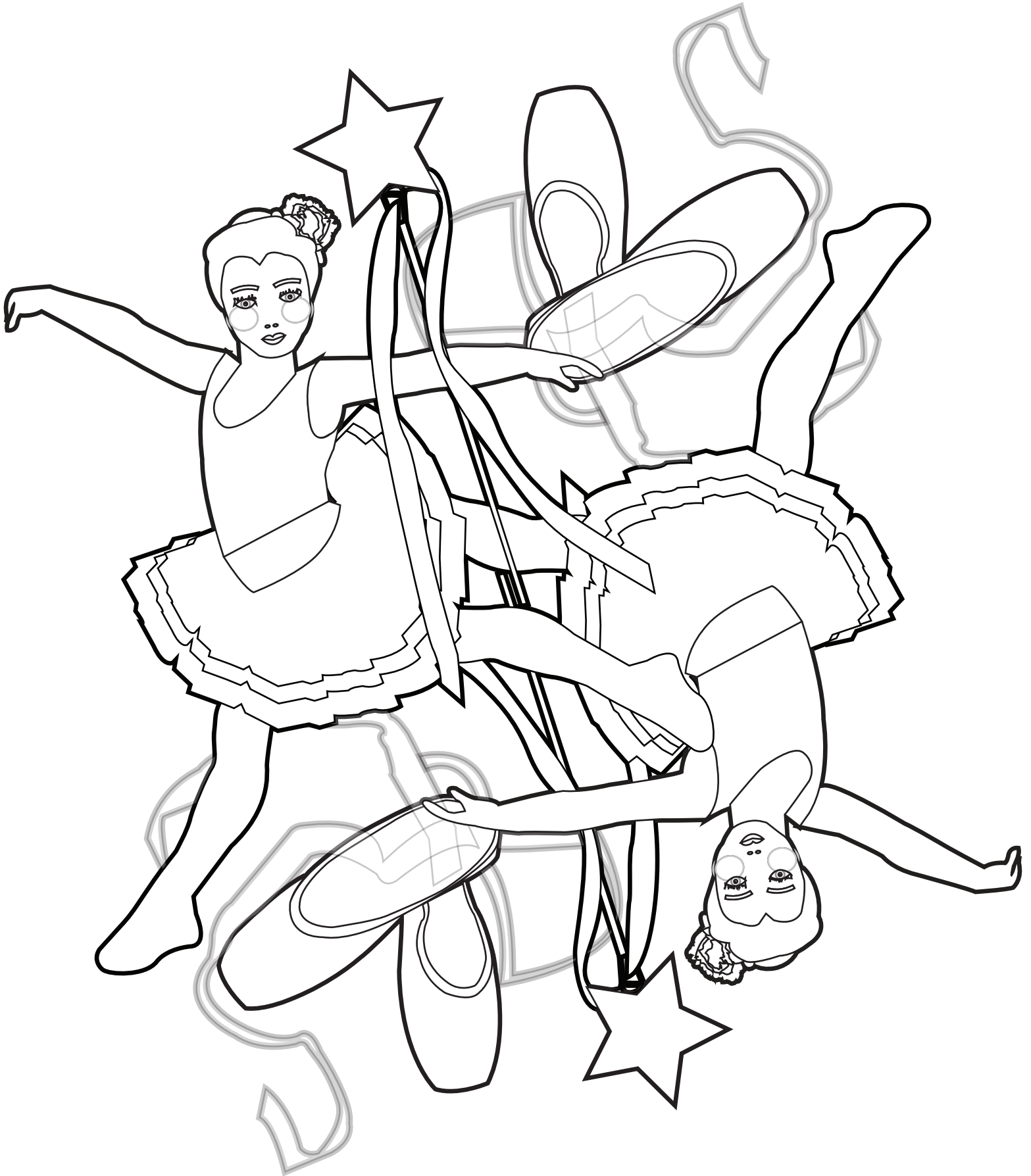


# BALLET

# BALLET

Keep all text and illustrations within the 0.5" margin.





DANCES FROM HISTORY

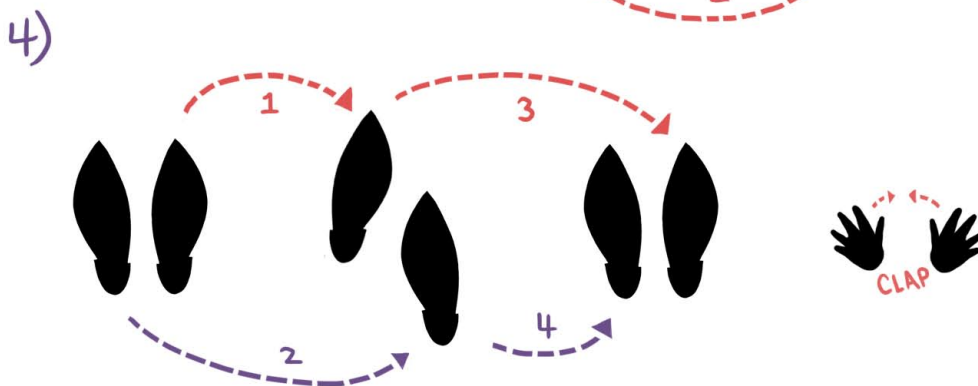
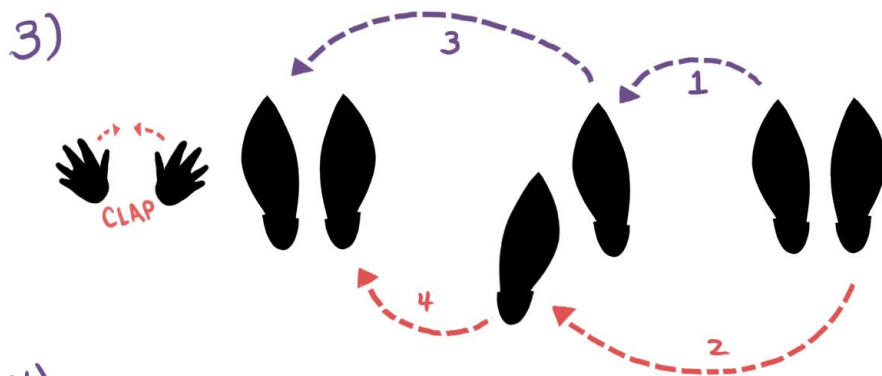
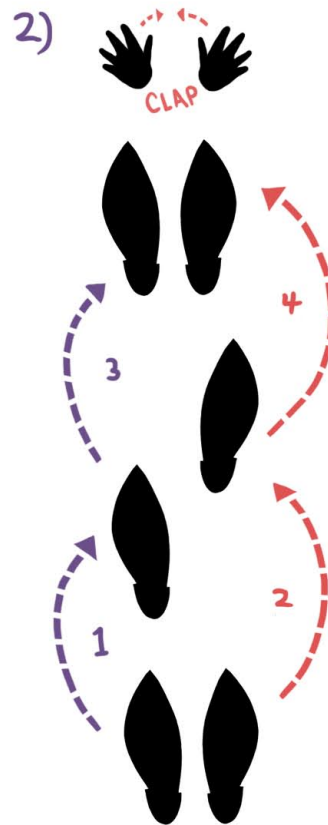
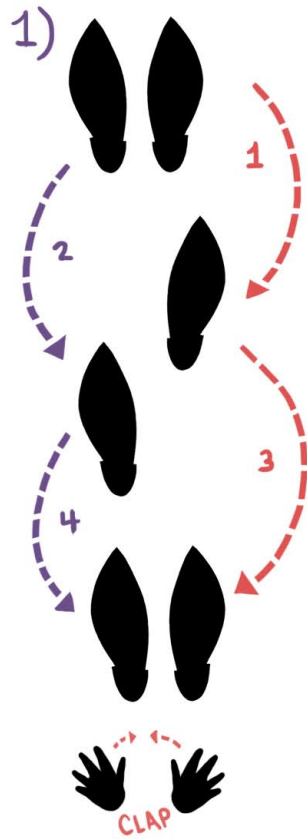


DISCO DANCE



# CALIFORNIA HUSTLE

CIRCA 1970



# Stand-Up



Stand-up is a kind of comedy where a person gets up on stage and tells jokes straight to an audience. Stand-up comedy started in the music halls of Britain and on the vaudeville stages of America. Comedy acts were by far the most popular kinds of acts in those shows, and the emcee, or host, would tell jokes to warm up the audience.

Stand-up comedy was at its peak in the '60s, '70s, and '80s. Some of the most famous actors and comedians of all time, like Bill Cosby, Woody Allen, and Jerry Seinfeld, got their start in stand-up.

Stand-up comedy can be performed anywhere, for anyone – from paying ticketholders in a theater to guests in a coffee shop to soldiers overseas. The jokes in stand-up can be told in many different ways, but they almost always poke fun at everyday life.

There are many different ways to tell a joke in stand-up. Try coming up with a joke for each of the joke types below. Then perform it them for your friends and family!

A **monologue** (mon-o-log) is basically a funny story. A comedian will spend a minute or two talking about something funny that happened to him or her. (Psst...it doesn't have to be true!)

A **one-liner** is a short joke that is one or two sentences long.

**Physical comedy** (fizz-ick-al com-eh-dee) is acted out instead of told.

**Prop comedy** uses props, or items, in a funny way.

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Write a monologue about...*dealing with your brother, sister or other family member.*

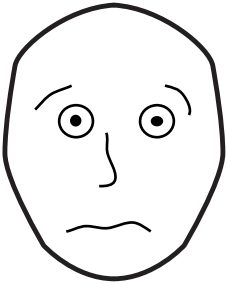
Write a one-liner about...*something you don't like.*

Do a physical joke about...*eating a school lunch.*

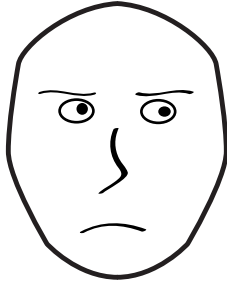
Do a prop joke about...*going to the dentist.*



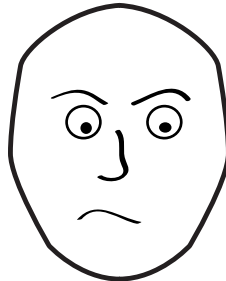
# FACIAL EXPRESSIONS: Our expressions tell people what we're feeling.



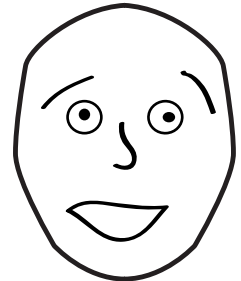
*Embarrassed*



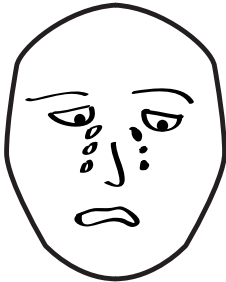
*Bored*



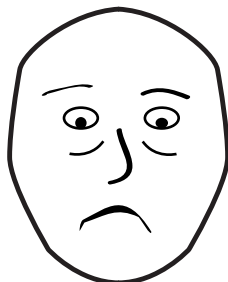
*Annoyed*



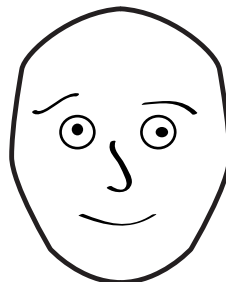
*Excited*



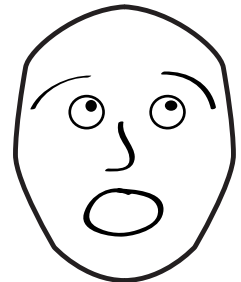
*Crying*



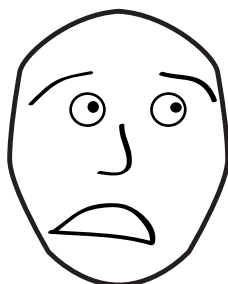
*Sad*



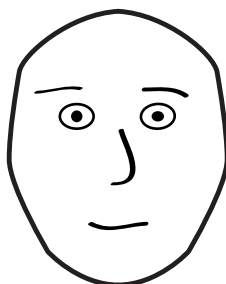
*Happy*



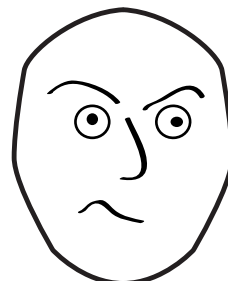
*Surprised*



*Scared*

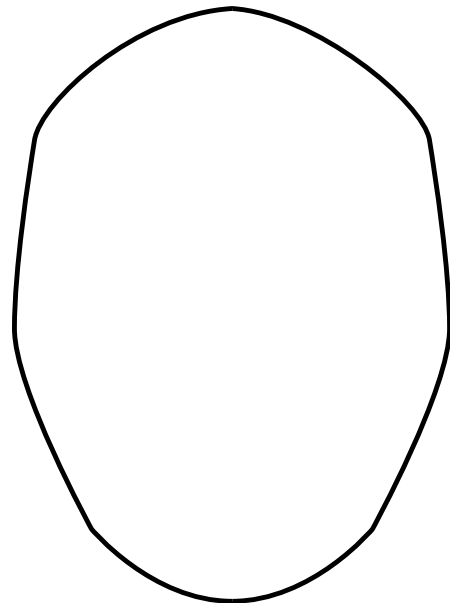
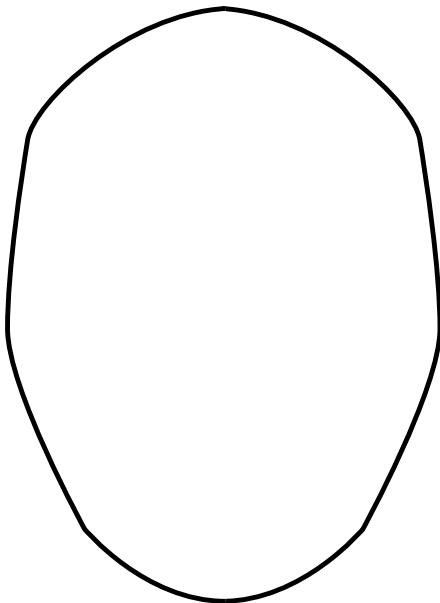
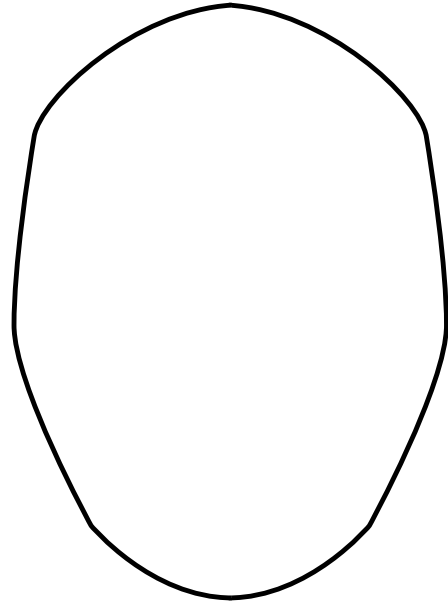
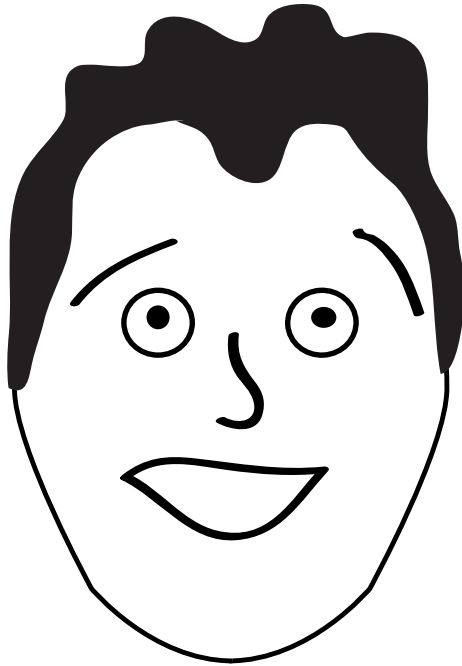


*Calm*



*Angry*

**F**ACIAL EXPRESSIONS: Use these empty heads to draw your own faces! Don't forget the eyebrows—they can be the most important part.



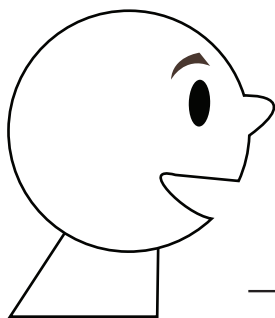
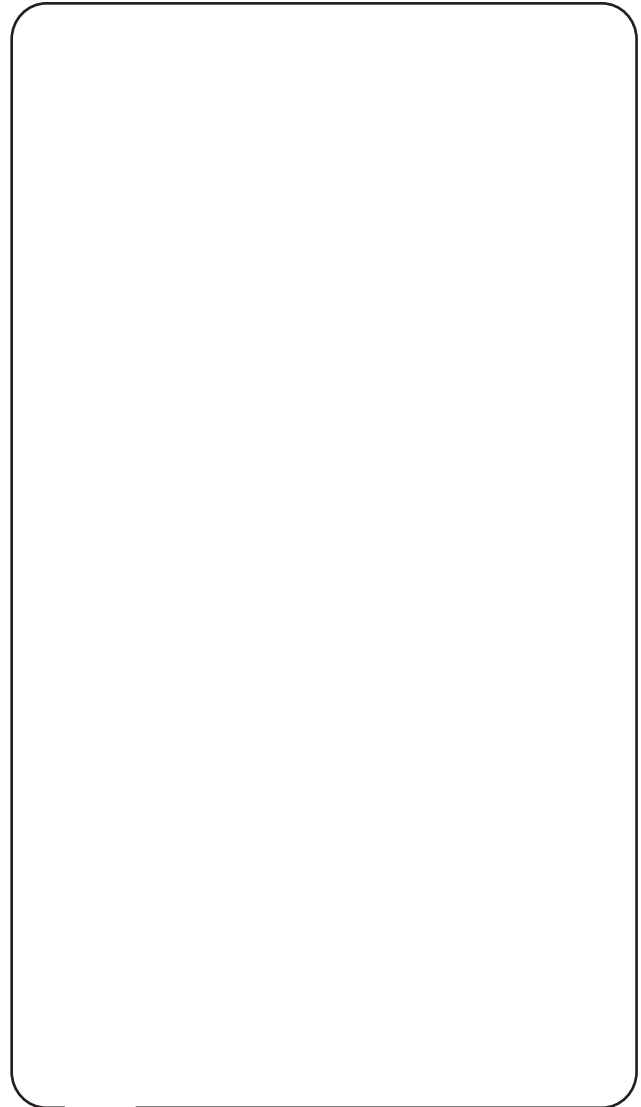
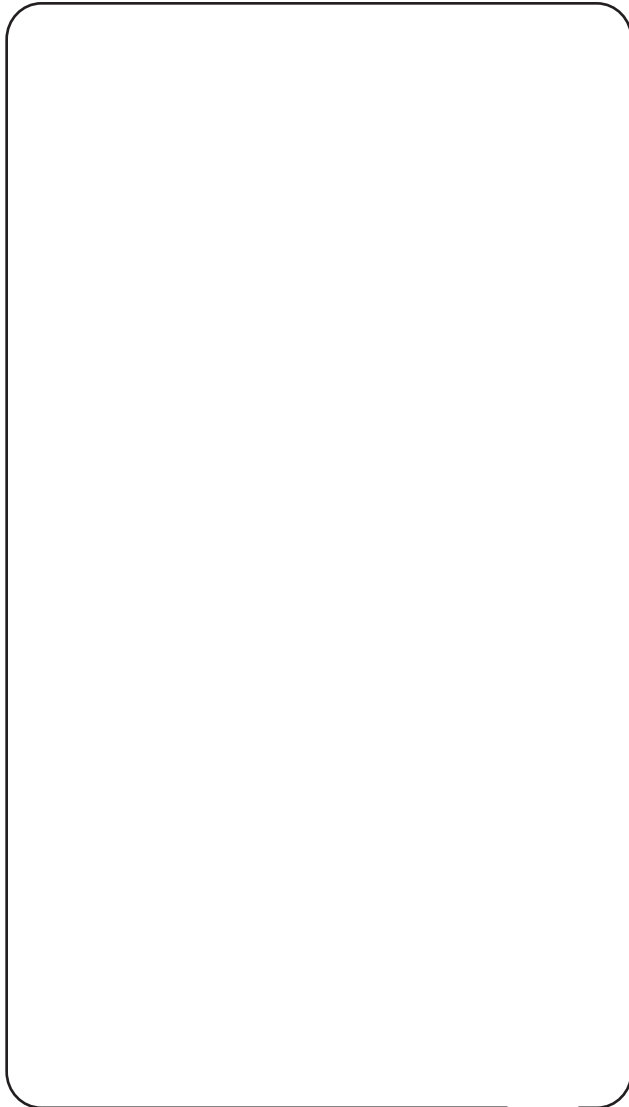
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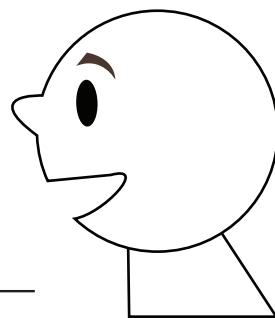
# Dialogue & Drama



Think about the personal narrative you are writing. Think about two characters in your narrative. Write words that they can say to each other in the speech bubbles below.

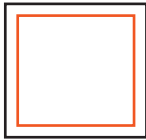

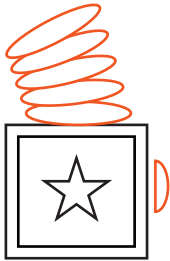
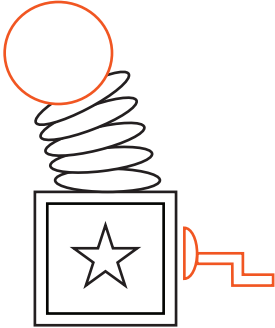
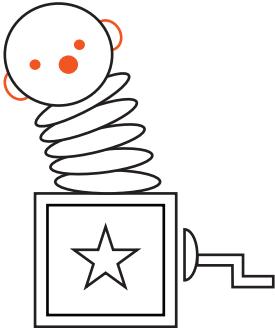
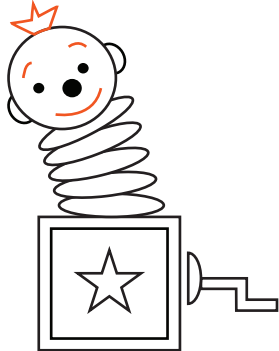
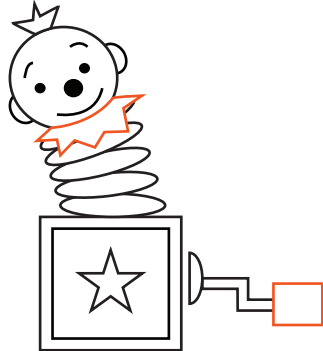
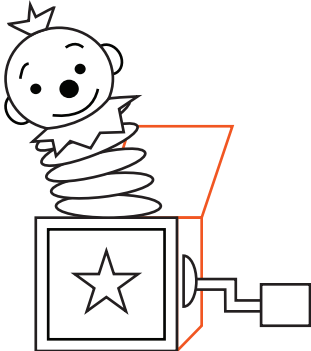
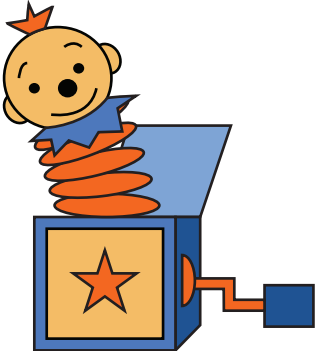
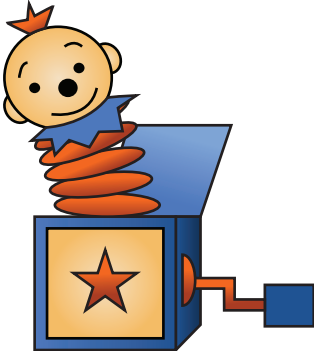
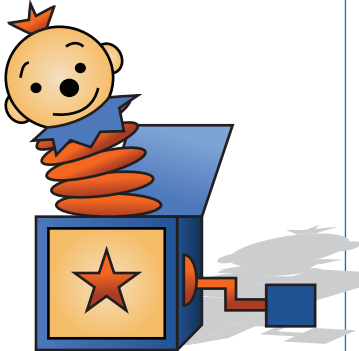


\_\_\_\_\_



\_\_\_\_\_

By combining simple shapes, we can create complex drawings. Let's draw a jack-in-the-box toy!

 <p>Start with a square and add a smaller square inside.</p>	 <p>Now add a star in the middle to decorate it.</p>	 <p>Draw the some ellipses and a half circle for the lever.</p>	 <p>Add a circle for the head and a zigzag shape for the lever.</p>
 <p>Now add circles for the face and half-circles for the ears.</p>	 <p>Add curves for the eyebrows and a puff of hair.</p>	 <p>Let's add the handle and a decoration below the neck.</p>	 <p>Now extend the box and add the cover.</p>
 <p>Add some colors!</p>	 <p>Use darker colors and lighter colors to shade him.</p>	 <p>Then add a little shadow.</p>	<p>Great job! You are done!</p>