

A Unit of Study for Grades K–2, 3–4, and 5–6



# Castle

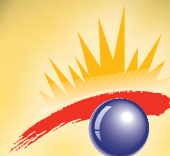
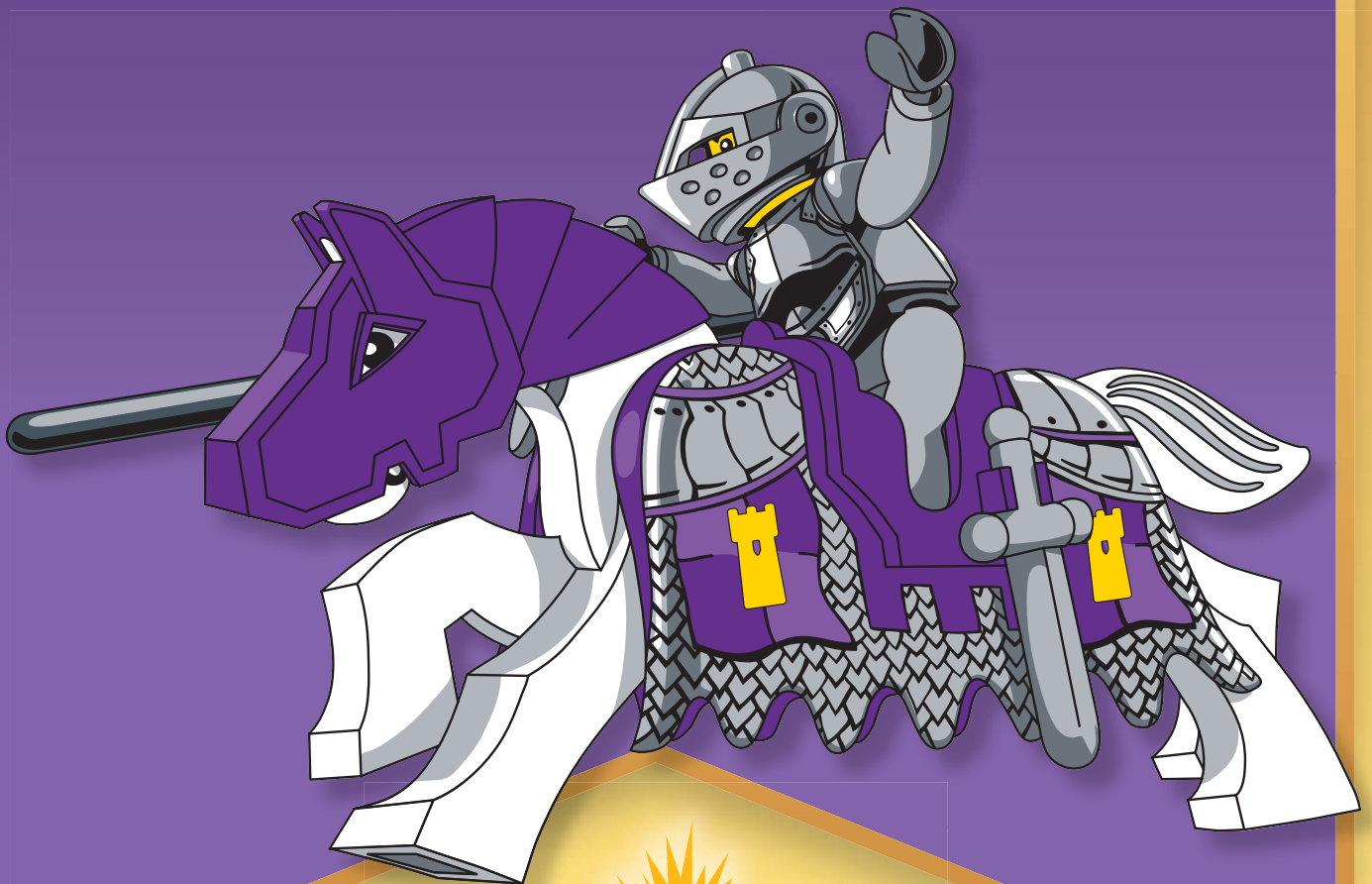
## ADVENTURE



Produced by The Children's Museum of Indianapolis

Presented by:  **FAZOLI'S**  
fast. fresh. italian.

Supported by:  **Coca-Cola**



**The Children's Museum**  
of Indianapolis



## A Unit of Study for Grades K–2, 3–4, and 5–6

### Acknowledgments

The Children's Museum of Indianapolis thanks Dr. Beverly Reitsma, University of Indianapolis; Sue Keene, Tonya Mercer, and Angie Kiplinger, MSD Decatur Township Schools, Indianapolis; and the LEGO Group for their assistance in the development of this unit of study.



### About the LEGO Group

The LEGO Group is a privately held, family-owned company based in Billund, Denmark. One of the world's leading manufacturers of creatively educational play materials for children, the company is committed to the development of children's creative and imaginative abilities. Employees are guided by the motto adopted in the 1930s by founder Ole Kirk Christiansen: "Only the best is good enough." Find more information online at <http://www.LEGO.com>.



### The Children's Museum of Indianapolis

The Children's Museum of Indianapolis is a nonprofit institution dedicated to providing extraordinary learning experiences that have the power to transform the lives of children and families. It is the largest children's museum in the world, serving more than 1 million people across Indiana and visitors from other states and nations.

The museum provides special programs and experiences for students as well as teaching materials and professional development opportunities for teachers. To plan a visit or learn more about educational programs and resources, visit the Teacher section of the museum's Web site at <http://www.childrensmuseum.org>.

Produced by The Children's Museum of Indianapolis in cooperation with LEGO Systems, Inc.

LEGO and the LEGO logo are trademarks of the LEGO Group.

© 2009 The LEGO Group. All rights reserved.

THE CHILDREN'S MUSEUM OF INDIANAPOLIS © 2009

# TABLE OF CONTENTS



# Castle

## ADVENTURE

Produced by The Children's Museum of Indianapolis



## INTRODUCTION ..... 4

### Lesson One



#### CASTLE TALES: SLAYING DRAGONS AND CELEBRATING GOOD DEEDS

<b>Grades K–2 Experience:</b> Apprentice Builder	
Storyteller's Craft: Exciting Adventures	12
<b>Grades 3–4 Experience:</b> Journeyman Builder	
Storyteller's Craft: Magic and Mystery	14
<b>Grades 5–6 Experience:</b> Master Builder	
Storyteller's Craft: Magnificent Language	16
<b>Assessment</b>	18

### Lesson Two



#### NOT QUITE A FAIRY TALE: THE CASTLE COMMUNITY

<b>Grades K–2 Experience:</b> Apprentice Builder	
Scholar's Craft: Growing Up Prince and Peasant	24
<b>Grades 3–4 Experience:</b> Journeyman Builder	
Scholar's Craft: Feasts, Festivals, and Everyday Life	26
<b>Grades 5–6 Experience:</b> Master Builder	
Scholar's Craft: Medieval Voices	28
<b>Assessment</b>	31

### Lesson Three



#### THICK WALLS AND HIGH TOWERS: THE ART AND SCIENCE OF BUILDING CASTLES

<b>Grades K–2 Experience:</b> Apprentice Builder	
Builder's Craft: Castles Inside and Out	37
<b>Grades 3–4 Experience:</b> Journeyman Builder	
Builder's Craft: Castle Basics	39
<b>Grades 5–6 Experience:</b> Master Builder	
Builder's Craft: Construction and Destruction	42
<b>Culminating Experience: Build a Castle of LEGO® Bricks</b>	45



## RESOURCES ..... 49

Books	49
Magazines	49
Web sites	50
Map of Europe	50
Glossary	51
Academic Standards	52

## INTRODUCTION

### Introduction

**Building Prior Knowledge:** Lessons 1, 2, and 3 provide students with a better understanding of castles and the people who lived in them. Experiences are tailored to prepare them for the exhibit and the culminating LEGO® Castle Building Adventure!

#### Enduring Idea

Construction of a castle combined both skill and artistry. While built to be a fortress against invaders, the castle stands as a symbol of hope and a tribute to human ingenuity. Students use creativity, knowledge, and a variety of skills as they build their own LEGO castles.



- **Lesson 3:** focuses on castle construction and sets the stage for the Culminating Experience, building castles with LEGO bricks.
- The Culminating Experience is divided into three sections, pre- and post-castle building and an actual visit to LEGO *Castle Adventure*. This experience also presents a plan for family involvement in a school “Castle Raising” event.

The lesson format features the key concepts *connect*, *construct*, *contemplate*, and *continue* developed by LEGO Education Division. While the terms may be new to some educators, the underlying philosophy is not (see <http://www.LEGOeducation.com>).

In this unit, the following concepts are used to provide a focus for the interrelated phases of each learning experience:

- **CONNECT** — The first goal of each experience is to *connect* with students’ existing knowledge or skill base to maximize learning.
- **CONSTRUCT** — In this phase students *construct* both knowledge and skills. It is a period of active engagement that includes hands-on learning.
- **CONTEMPLATE** — After each experience students *contemplate* or reflect on the content and skills learned. It is also a time to think about such unit concepts as honor or heroism and consider what they mean in today’s world.
- **CONTINUE** — The final section encourages students to *continue* learning, by expanding their content knowledge and improving skills.



#### THE EXHIBIT

LEGO *Castle Adventure* is a traveling exhibit created by The Children’s Museum of Indianapolis and the LEGO Group. Through the inspiration of LEGO bricks, students and families are transported back in time to the era of great castles! The adventure begins as travelers enter the castle gates to the welcoming cries of the herald. Within the castle walls visitors have the opportunity to explore the great hall, presided over by the king and queen of the manor, and peek into the treasure room and the castle dungeon. Hands-on experiences give adventurers the opportunity to learn about the different parts of the castle; the life of a knight, its most notable resident; and the many weapons used to attack and defend the castle. Special features of the exhibit include the LEGO building stations, where young and old work together to build the castles of their dreams.

This exhibit is not only an adventure in time but also an adventure in learning. The Children’s Museum and the LEGO Group believe that learning should be hands-on, student-directed, and fun! The interactive nature of the exhibit provides a challenging but safe environment where students are free to explore, solve problems, imagine, and learn. In addition to meeting academic goals, the LEGO building stations provide students with the understanding that complex tasks, such as building a castle, are best achieved through teamwork!

#### THE UNIT OF STUDY

LEGO *Castle Adventure* is an integrated unit that targets Social Studies, English Language Arts, and Math standards. The unit is organized in layered learning experiences for Grades K–2, 3–4, and 5–6. The three-lesson sequence provides students with background knowledge about castles and the medieval era and prepares them for the museum visit.

- **Lesson 1** sparks students’ interest and activates existing prior knowledge.
- **Lesson 2:** provides factual information about the castle community and addresses misconceptions stemming from stories or movies.

## INTRODUCTION

### WHAT WILL STUDENTS LEARN?

All unit learning experiences address national and state academic standards. The academic standards developed by the National Council for the Social Studies (NCSS) are the content base for all three lessons. Important NCSS themes include: a) culture and diversity; b) time, continuity, and change; and c) people, places, and environments. Building on this base, Lessons 1 and 2 focus on English Language Arts skills. In Lesson 2 students learn how to tell exciting stories through the use of action, suspense, and figurative language. Lesson 2 provides opportunities to learn and practice research skills. Lesson 3 focuses on Math and features the knowledge and skills used to design and build great castles. Measurement, geometry, and problem solving are among the areas addressed. Throughout unit learning experiences, students have many opportunities to read, write, speak, listen, solve problems, and work cooperatively. The developers of this unit encourage educators to adapt lessons in this unit to meet the specific learning goals of their students, community, and state.

### WHAT'S AHEAD?

Each of the three lessons in this unit has a theme and key skills. The themes provide a focal point and context for the concepts and skills learned.

### ACADEMIC STANDARDS

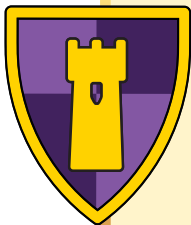
The National Council for the Social Studies (NCSS) recognizes Ten Themes that provide a framework for organizing Social Studies content. Listed here are three major themes related to this unit of study.

- **Culture:** The Social Studies curriculum should include experiences that provide for the study of culture and cultural diversity. Key questions related to this theme include: How are groups of people alike and different? What is culture? How does culture unify a group of people? How do the beliefs, values, and behaviors of a group of people help the group meet its needs and solve problems?
- **Time, Continuity, and Change:** Social Studies should include experiences that provide for the study of ways human beings view themselves over time. Key questions for student investigations include: What happened in the past? How do people perceive the past? How has the past influenced the present?
- **People, Places, and Environment:** Social Studies curricula should include experiences that provide for the study of people, places, and environments. See the NCSS Web site for recent updates to the standards at <http://www.ncss.org>.

### Lesson One

#### CASTLE TALES: SLAYING DRAGONS AND CELEBRATING GOOD DEEDS

Throughout the ages, the castle has been a primary setting for adventure, mystery, and wonder. Students read and listen to a variety of tales, examine the differences between fact and fiction, analyze the features that make an exciting story, write and perform their own stories, and contemplate key concepts such as good versus evil, heroism, and honor.



### Lesson Two

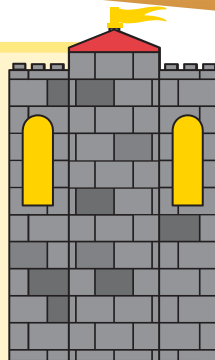
#### NOT QUITE A FAIRY TALE: THE CASTLE COMMUNITY

Castle life was rarely as heroic or romantic as the pictures painted in story and verse. Through research, students gain a realistic view of castle society and the differing lifestyles of nobles and peasants.

### Lesson Three

#### THICK WALLS AND HIGH TOWERS: THE ART AND SCIENCE OF BUILDING CASTLES

The construction of a castle was an enormous undertaking that required not only vision but also knowledge of math. Students put their mathematical knowledge to work to plan and design their own castles.





## INTRODUCTION

### CULMINATING EXPERIENCE

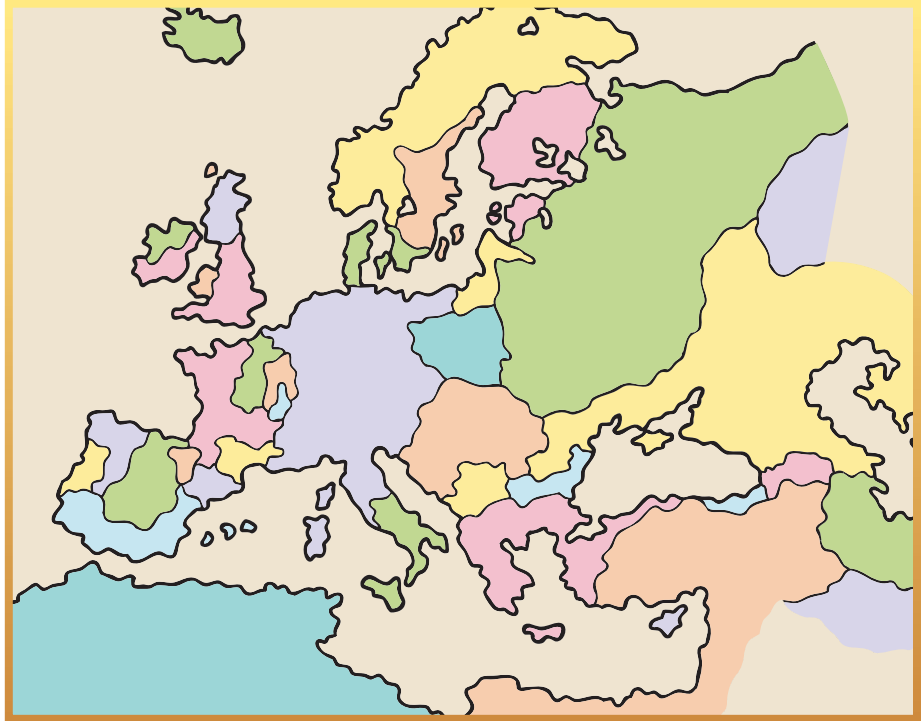
#### Build a Castle of LEGO® Bricks

Students put their plans and designs into effect as they use LEGO® bricks and work cooperatively to build a castle in the LEGO *Castle Adventure* exhibit or in the classroom. As a family involvement activity, students can help plan a “Family Castle Raising” event that involves families and community members.

### WHAT WILL STUDENTS BE ABLE TO DO?

#### Students will

- listen to and read fiction and nonfiction texts
- distinguish between fact, fiction, and fantasy in texts
- speak and write fiction and nonfiction texts
- use action, suspense, and/or figurative language to make stories exciting
- identify the characteristics that make a hero
- explain the hierarchical nature of medieval society
- use reading, writing, drawing, listening, and experiencing skills as they research medieval life
- explain how function can influence form in castle building
- use math skills to design and plan a castle
- work cooperatively to build a castle

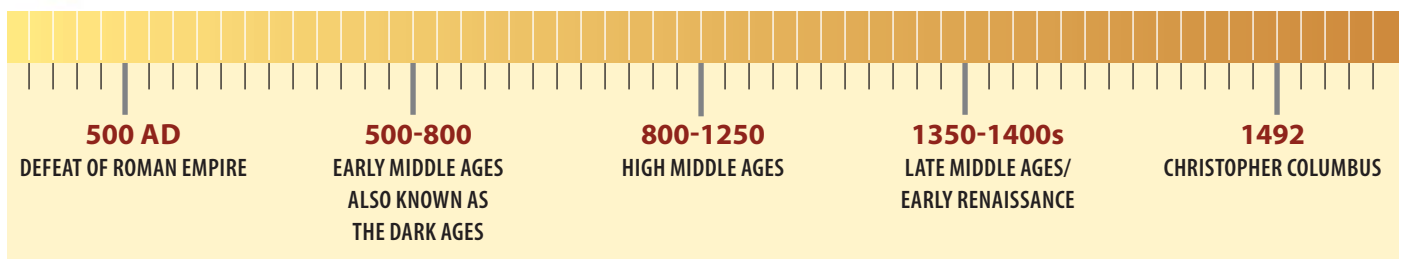


*Map of Medieval Europe, 13th Century: In the Middle Ages, Europe was made up of numerous kingdoms and did not have the same national boundaries we know today.*

### GETTING STARTED

#### The Middle Ages: A Brief History

Help students gain perspective on the period in history known for castle building by using maps and time lines. The Middle Ages is the name given to a time in European history that stretches from approximately 500 to 1500 AD. It was given the name “middle” or “medieval” because of its position between the fall of the Roman Empire and the beginning of the Renaissance. This period is often broken into three parts: early, high, and late Middle Ages. Although people in various parts of the world built castles at different times for a variety of purposes, most European castles were created during this period.



## INTRODUCTION

### Royal Tutor Tip

This unit provides a snapshot of medieval Europe. It does not reflect the learning and lifestyles of people living in other parts of the world at that time. For example, China in this same period experienced political stability, remarkable technological advances (including the invention of gun powder), and the exportation of luxury goods such as silk to Europe.

Students' knowledge of the Middle Ages may be limited or based on misconceptions. Legends, such as that of King Arthur, and modern books and movies have romanticized the period. While knights, castles, and the code of chivalry did exist, most people of the time were peasants who had few rights and spent their entire lives toiling in the fields. There was no centralized government, and small kingdoms were governed by the land-holding nobility. Although substantially better off, nobles did not live the ideal lives of folk and fairy tales. Castles were often more functional as forts than as homes. Men had the obligation of military service and women had few options other than marriage. Nobles and peasants alike were struck down by disease.

Some students may associate this period with another commonly used name, the "Dark Ages." This designation is equally misleading. Although life in this period was violent and plagued by disease, learning and the arts survived. Monasteries served as the curators of knowledge. The illuminated manuscript not only preserved information but also was an art form. Similarly, the evolution and building of castles throughout this period attest to the ingenuity and artistry of the time. Ironically, the very skills required to build these structures were in some measure the undoing of the feudal society they symbolized. The skilled workers needed for castle construction represented a new middle class and ultimately ushered in a new era. One goal of this unit of study is to provide students with a glimpse of both the fantasy and reality of the Middle Ages, and in doing so to provide a balanced understanding of the achievements and challenges of this period in history.





## INTRODUCTION

### CLASSROOM ENVIRONMENT

Due to the integrated nature of this unit of study, teachers can easily immerse students in medieval life. Students may convert the classroom into a great hall, try eating with only a knife and spoon, play games typical of the period, and take on the different roles of peasant or noble.

Fill the classroom with a wealth of age-appropriate fiction and nonfiction texts. Fiction may include folk or fairy tales and legends featuring not only King Arthur and his knights but also more humble individuals, such as Robin Hood. Include modern fantasy and fiction stories that feature medieval motifs, such as *The Hero and the Crown* (Robin McKinley), *Ella Enchanted* (Gail Carson Levine), and *The Book of Three* (Lloyd Alexander). Historical fiction is a great teaching tool because it combines an entertaining story with factual information. Older students will enjoy books by Karen Cushman and Avi. See the Resources section for specific titles (page 49).

A wide variety of nonfiction texts is essential for research and is an important element in combating misconceptions. Choose resources with lots of illustrations. This helps students understand a distant time and culture as well as comprehend unfamiliar concepts and vocabulary. The visual nature of the Internet makes it a particularly useful resource. Art and building supplies (boxes, tubes, and so on) help students gain a clearer understanding of the castle and its community. Students of all ages may enjoy donning a knight's armor or a lady's wimple!



*What would it be like to be a prince or princess in a fairy tale?*

### FAMILY CONNECTIONS – FAMILY GUIDE

Share the learning goals of this unit of study with families. Encourage them to become part of the research team by discussing class projects, reading and watching related books and programs, and searching online for additional information. Make sure that families have a list of resources, especially those that include stories dealing with fantasy topics and characters. It is helpful to make materials available to families before the start of the unit as well as to offer choices and alternatives. Include information about the LEGO® *Castle Adventure* exhibit, where families with children of all ages can enjoy building castles with LEGO sets. Make sure families know that they can visit the exhibit Web site <http://MyCastleAdventure.com> for interactive family experiences and a **Family Guide** that will enhance family learning in the exhibit and at home.





## INTRODUCTION



### LEGO® Castle Adventure Web Site

The exhibit Web site complements this unit of study and offers students and families an opportunity to learn more about the exhibit by means of highly visual and informative content and activities. As they explore the Web site, students can begin to answer their own questions, such as: What are castles? How are castles built? What was castle life *really* like? If I lived in a castle, what job would I do? What would it be like to be a noble or a peasant? The Web site also can help students write their own fairly tales or design a coat of arms for their family. As students complete interactive games and experiences, they accumulate bounty in the castle Treasure Room. Visit the site at <http://MyCastleAdventure.com>.

### The Unit of Study and Student Work

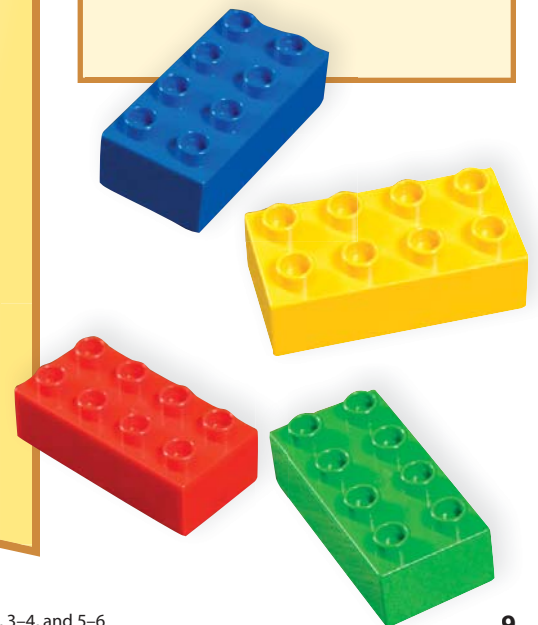
Visit the LEGO Castle Adventure Web site to view and download this unit of study and to examine student work supervised by teachers using the unit of study.



### The LEGO Experience at School

LEGO Educational Division creates hands-on learning concepts with LEGO elements for use in classrooms around the world. School programs provide cross-curricular activities in science and technology, biology, mathematics, geography, environmental studies, and history, and include guides for teachers and students. Preschool products encourage group play and support project-based early learning. The underlying principle of LEGO toys is group-oriented “playful learning” that can be applied all the way from kindergarten to college. For online lesson plans, visit

**<http://www.LEGOeducation.com>.**



## LESSON ONE

### Lesson One

## CASTLE TALES: SLAYING DRAGONS AND CELEBRATING GOOD DEEDS



### Castles: Places of Adventure

Whether it is a classic tale, such as King Arthur, or modern fiction and fantasy, storytellers throughout the ages have used the **castle** as a primary setting for adventure, mystery, and wonder. Populated by crusading knights, damsels in distress, and more than one fool, the tales within this lesson are catalysts for students to practice their reading and writing skills. During the lesson students listen to or read a variety of tales, analyze the features that make an exciting story, write and perform their own stories, and contemplate ancient yet relevant concepts as good versus evil, heroism, and honor.

#### OBJECTIVES

Students will

- read or listen to a variety of traditional tales and legends
- differentiate between fact, fiction, and fantasy in stories
- use writing strategies, such as action, suspense, and figurative language, to tell or write more exciting stories
- explain the meaning of being a hero and relate the idea of heroism and good deeds to their own lives

### YOU WILL NEED ...

#### GRADES K-2: APPRENTICE BUILDERS

##### Materials

- picture books with castles in different settings (see the Resources section, page 49).
- *The Knight and the Dragon* picture book by Tomie dePaola (see the Resources section, page 49).
- Student Handout: **Castle Adventure Storyboard Template**, page 19
- sheets of drawing or construction paper and other writing and drawing media

##### Time

Three class periods

#### GRADES 3-4: JOURNEYMAN BUILDERS

##### Materials

- selection of picture books or short stories based on fantasy (see the Resources section, page 49).
- entrance cards (index cards)
- chart paper for interactive story
- paper and other writing and drawing media

##### Time

Three class periods

#### GRADES 5-6: MASTER BUILDERS

##### Materials

- *Saint George and the Dragon* by Margaret Hodges (multiple copies for individual reading optional)
- projection device (group reading, Day 2)
- cards for word wall
- Student Handout: **Magnificent Language Organizer**, page 21
- paper and other writing and drawing media

##### Time

Three class periods

## LESSON ONE

### FOCUS QUESTIONS

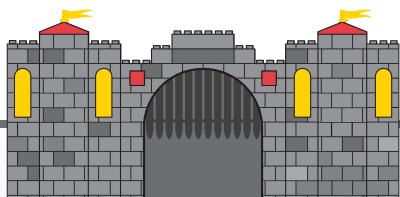
Use these discussion questions to help students focus on key ideas in Lesson One.

- How do storytellers and writers make their stories exciting?
- What does it mean to “paint pictures with words”?
- What is a “good deed”? What good deeds have you done or have been done for you?
- What makes a hero a hero? When were you a hero and why?
- How are fictional and real-life heroes different? How are they the same?
- How can you tell if a story is fantasy?



Photo courtesy of the LEGO Group

LEGO® Master Builders created this model of Blarney, a famous castle in Ireland.



### LANGUAGE BRICKS FOR EXCITING STORIES

Vocabulary development is one of the basic building blocks for literacy. Introduce the following words to students as they appear in the context of each learning experience in this lesson.

adventure	hero
castle	honor
champion	knight
chivalry	language
dragon	medieval
fact	Middle Ages
fantasy	pledge
fiction	plot
figurativ	suspense
good or brave deed	visualize



### Royal Tutor Tip

#### FACT VS. FICTION

Throughout Lesson One, help students differentiate between elements of fact, fiction, and fantasy in the literature they are reading. For example, dragons are mythical creatures. They are not ancient ancestors or distant cousins of dinosaurs!





## GRADES K–2 EXPERIENCE: APPRENTICE BUILDERS STORYTELLER’S CRAFT: EXCITING ADVENTURES



*Tell a tale of a knight in shining armor!*

Students listen to selected folk and fairy tales and learn how storytellers make their tales more exciting by creating adventures (a plot) involving their characters. Students create a series of related events for a story and complete a prewriting storyboard. They discuss the concept of being a hero and doing good deeds, and relate this to their own lives.

### ACADEMIC STANDARDS

#### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

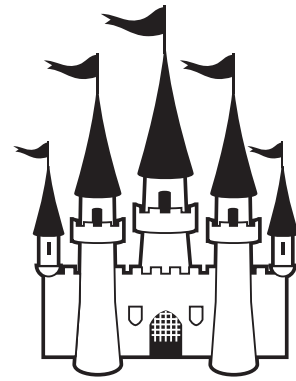
**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature

#### Indiana’s Academic Standards

**Social Studies** — K.1.1, K.1.3, 1.1.1, 1.1.2, 2.1.7, 2.2.2

**English Language Arts** — K.3.1, K.3.3, K.4.1, K.4.3, K.5.1, K.7.5, 1.3.1, 1.3.4, 1.4.1, 1.4.2, 1.5.1, 1.7.1, 1.7.5, 2.3.6, 2.3.7, 2.4.2, 2.4.3, 2.5.1, 2.7.1

*\* Indicators in bold type are included in the Indiana Core Standards.*



### Royal Tutor Tip

Bring the castle setting alive through picture books. This supports comprehension and provides essential background information to English language learners, students having difficulty learning to read, and those not familiar with specific tales.

### PROCEDURES

#### DAY 1

##### Connect

- Have students close their eyes. Ask them to imagine a **castle**. What does it look like? Share ideas.
- Encourage students to share favorite stories that feature a castle. Questions might include: Who lives in a castle? What story do you know that has a castle in it?

##### Construct

- Select and read a fairy tale that features a castle in the setting. Examples include *Sleeping Beauty*, *Rapunzel*, *The Twelve Dancing Princesses*, *Snow White*, or *Beauty and the Beast*.
- Ask students how they can tell that the tale is a **fantasy** or “just pretend” story.



- Have students think about their favorite character in the story, and ask them to tell why they like this character.
- Ask students to share more information about their favorite characters. Encourage them to explain why the characters are their favorites. Answers might include “strong” or “he was brave” or “she scared me, but it was good scary.”

## Contemplate

- Tell students that storytellers make tales more exciting by having the **hero** experience an **adventure**, a series of exciting events. These adventures often include fighting against evil, such as slaying a **dragon**, or accomplishing a **good deed**.
- Have students think of someone they know who accomplished a good deed and tell why he or she a hero.

## Continue

- Remind students that good storytellers make their tales more exciting by having the hero participate in adventures.
- Have students think of examples of adventures from other stories or real life.

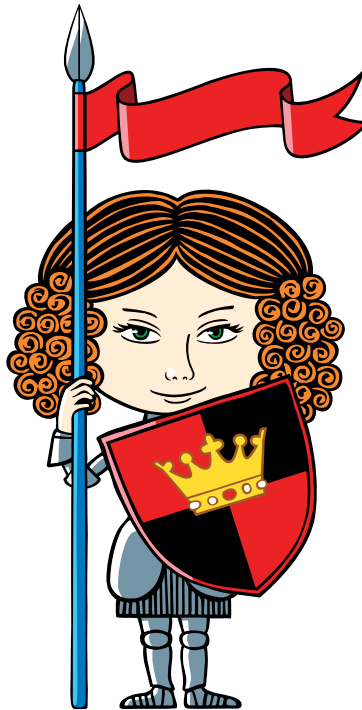
## DAY 2

### Connect

- Have student pairs briefly share their real or storybook adventures.
- Introduce *The Knight and the Dragon* by Tomie dePaola.
- Have students predict the hero and potential adventures.

### Construct

- Preview the story’s **plot** by reviewing the illustrations. Encourage the students to tell the story using the pictures. At this point do not stop to explain the pictures.
- Read the story.



## Who Is a hero?

Both girls and boys can be **heroes**.

- Emphasize the actions of the two main characters.

## Contemplate

- Ask: Who is the **hero** of the story? Who was the villain? Who fought against evil? Who did a **good deed**?
- Encourage students to see that both the **knight** and the **dragon** are heroes, each in their own ways.

## Continue

- Tell students that tomorrow will be their turn to be the storytellers. Each should think of a hero and an adventure for his or her very own castle adventure.

## DAY 3

### Connect

- Have students brainstorm potential heroes and adventures for their stories.

## Construct

- Introduce the **Castle Adventure Storyboard** template. On the left side of the template on page 19, model how to identify, draw, and describe the story’s hero. On the right side, describe and illustrate one adventure experienced by the hero.
- Tell the students that it is their turn to become storytellers. Have each student complete a storyboard using the template.
- Create a Museum Walk by displaying completed storyboards on the wall.

## Contemplate

- Show students how to take turns explaining and viewing the storyboards.

## Continue

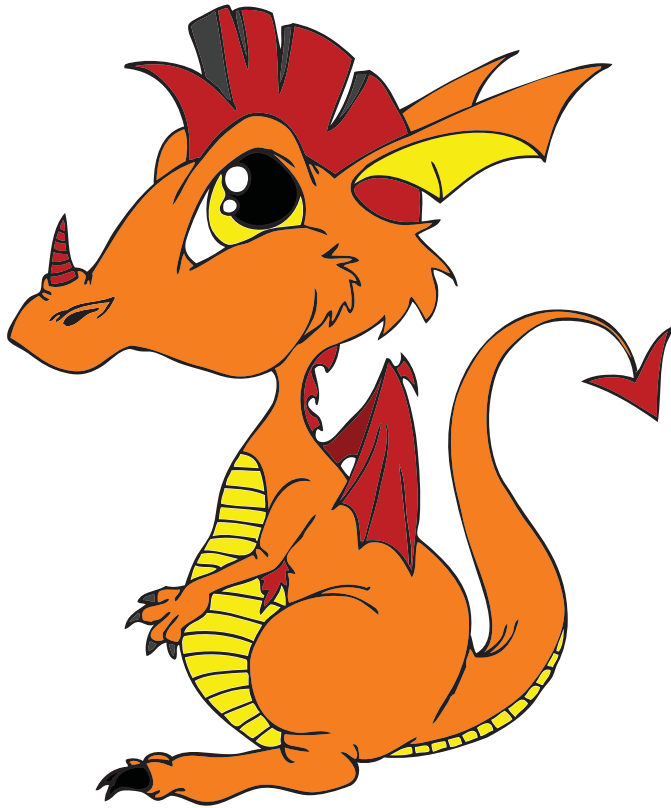
- Encourage students to continue reading and writing tales and thinking about past and present heroes.



## Royal Tutor Tip

Allow nonstandard forms of writing in the early grades. The percentage of words to pictures will vary according to the grade and individual levels of development.

## GRADES 3–4 EXPERIENCE: JOURNEYMAN BUILDERS STORYTELLER'S CRAFT: MAGIC AND MYSTERY



*Creating a fantastic creature, like a dragon, can make a story funny or scary!*

Students listen to and read a variety of fairy tales, learn how storytellers use suspense to make their stories more exciting, and practice the writing process by completing, peer reviewing, and revising suspenseful tales of their own!

### ACADEMIC STANDARDS

#### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; and People, Places, and Environment

**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature

#### Indiana's Academic Standards

**Social Studies** — State Standards for Grades 3 and 4 are specific to local and regional communities and Indiana. However, overarching concepts, such as change brought about by people and events, use of community resources to gather information, and distinguishing fact from fiction, are applicable to this unit.

**English Language Arts** — 3.3.1, 3.3.2, 3.3.3, 3.4.1, 3.4.2, 3.4.6, 3.5.1, 3.7.12, 4.3.1, 4.3.2, 4.4.1, 4.4.2, 4.4.10, 4.4.12, 4.5.1, 4.5.5, 4.7.11

*\* Indicators in bold type are included in the Indiana Core Standards.*

## PROCEDURES

### DAY 1

#### Connect

- Display several fairy tale books. Select one and share a scene (text or picture) that features a fantastic object, such as an invisibility cloak, or character, such as a **dragon**.
- Ask students to share other examples of **fantasy** from traditional or modern tales and to explain how fantasy is different from factual stories.

#### Construct

- Have the students select one of the stories. Read the story aloud.
- As a group, identify the **fantasy** elements in the story.

#### Contemplate

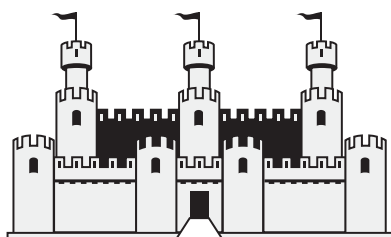
- Reread a particularly scary or exciting section of the story.
- Ask students: How did you feel when you heard this part of the story? Did your heart beat faster? Did you listen more carefully?
- Discuss student responses. Help them understand that fantasy is one way storytellers make their stories more suspenseful.

#### Continue

- Have pairs of students read a second tale.
- Direct students to complete Story Cards on index cards or small pieces of heavy paper and bring them to tomorrow's class. (See page 20.) On one side of the Story Card they should identify the title of the story, the fantastic idea used, and the character and events involved. On the reverse side they should evaluate the author's use of **suspense**. Did the fantastic object or character make the story more exciting? Why or why not?
- Remember, no invisible ink allowed!



## Royal Tutor Tip



Show students the sumptuous palace in Mahlon Craft's *Sleeping Beauty*. It is a perfect setting for magic and mystery!

### DAY 2

#### Connect

- Share the Story Cards. Post the cards in the classroom reading corner as book selection guides.

#### Construct

- Tell students that on the way to school, you found a fantastic object: a pencil that spells every word correctly! Show the pencil.
- Spin a tale: Have the class write a group story about the amazing, fantastic spelling pencil! Include in the tale how it was found, used, and what happened as a result.
- Challenge students to write their own individual tales. Remind them to include:
  - Introduction: A description of the object and its fantastic powers
  - Middle: How it was found and used
  - Ending: What happened to the object

#### Contemplate

- Encourage students to consider how the characters in their stories used their fantastic object. Highlight the importance of service and good deeds rather than material wishes.

#### Continue

- Remind students to think about how they can make their story more exciting, scary, or suspenseful through the use of magic.



### DAY 3

#### Connect

- Ask one volunteer to read his or her story draft aloud.
- Have students identify the scariest or most suspenseful parts of the story. Encourage them to explain their reasoning.
- Repeat the process, asking students to suggest ways to heighten the **suspense**.

#### Construct

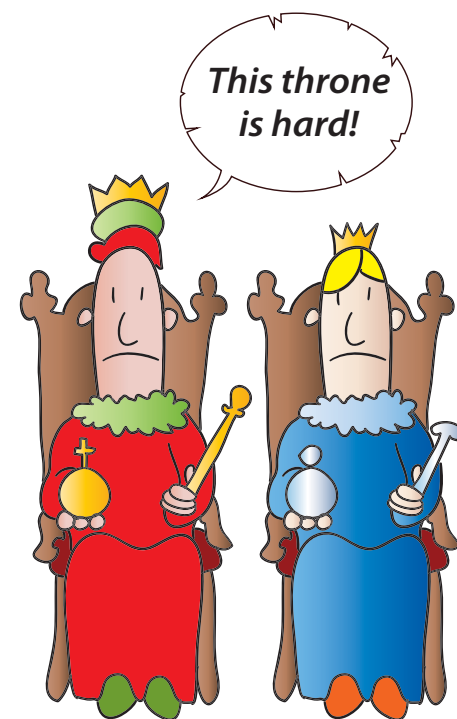
- Divide students into peer review teams. Have each team identify one strength of each story and one improvement that could be made.
- Using the peer review notes, have students incorporate story revisions.

#### Contemplate

- Tell students that fantastic objects or powers abound in past folk lore and present-day literature.
- Challenge students to think of reasons why **fantasy** remains so popular.

#### Continue

- Have students look for other ways that writers in both print and electronic media create **suspense**.



## Royal Tutor Tip

Attract reluctant writers by combining graphics and text. Use storyboards or comic book frames and word balloons to capture the action and words.

# GRADES 5–6 EXPERIENCE: MASTER BUILDERS STORYTELLER’S CRAFT: MAGNIFICENT LANGUAGE



*Storytelling was a popular form of entertainment in medieval times. A good storyteller was welcome at any feast.*

Students listen to and visualize the story of *Saint George and the Dragon*, learn how storytellers “paint pictures” with words, and use “magnificent language” to create a class book celebrating their brave or good deeds. They explore facets of the Code of Chivalry, such as honor, making a pledge, and brave deeds.

## ACADEMIC STANDARDS

### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature

### Indiana’s Academic Standards

**Social Studies** — **6.1.4, 6.1.7, 6.1.8, 6.1.9, 6.1.19, 6.1.20, 6.1.21**

Grade 5 standards are specific to United States history. However, overarching concepts, such as the use of historical fiction and nonfiction to understand historical time periods or the role of government, are applicable to this unit.

**English Language Arts** – **5.3.1, 5.3.4, 5.3.5, 5.3.6, 5.3.7, 5.4.1, 5.4.7, 5.4.8, 5.5.1, 5.5.5, 5.7.9, 6.3.1, 6.3.4, 6.3.6, 6.3.7, 6.3.8, 6.4.1, 6.4.8, 6.5.1, 6.5.6, 6.7.10**

*\* Indicators in bold type are included in the Indiana Core Standards.*

## PROCEDURES

### DAY 1

#### Connect

- Write the following words on the board: **brave or good deed, champion, chivalry, figurative language, honor, pledge, and visualize.**
- Brainstorm what these words mean and predict how they relate to the story students are about to hear.

#### Construct

- Read *Saint George and the Dragon* by Margaret Hodges to the class without showing the pictures, so students can focus on the language of the legend.

## Royal Tutor Tip

Prior to reading the story, meet with students who are English language learners. Using the pictures, provide a summary of the **plot** line. Make copies of the book available to them during the class reading.

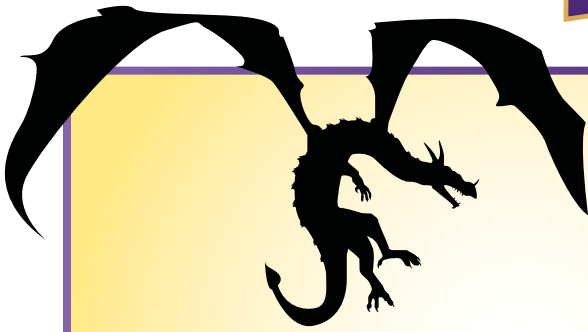
#### Contemplate

- Reread the description of the dragon and the first battle.
- Ask students to **visualize** the battle. What do they see, hear, smell, and feel?

#### Continue

- Encourage students to reread the book, this time carefully examining the illustrations.
- Have students give examples of fantasy elements in the story and explain how fantasy stories are different from other types of fiction.
- Tell students: For tomorrow, think about how the author paints a picture with her words.





## A PICTURE IN WORDS

*Saint George and the Dragon* is a treasure trove of figurative language! The following descriptions of the dragon are just one example: “The dragon’s wings stretched out like two sails when the wind fills them. . . . His blazing eyes, flaming with rage, glared out from deep in his head.”

### DAY 2

#### Connect

- Ask students what it means to “paint pictures with words.”
- Explain that this type of descriptive language is called **figurative language**. It helps the reader imagine events and creates a mood.

#### Construct

- Using a projection device, have students take turns reading aloud the description of the first battle.
- As a class, highlight the words that paint pictures, such as “scales of brass,” “blazing eyes,” or “flaming with rage.”
- Provide small groups with different sections of the story. Have them highlight words and phrases that paint pictures.
- Place examples on the Magnificent (figurative) Language word wall.

#### Contemplate

- Explain that **knights** were expected to follow a strict code of behavior, which included defending those who were powerless, such as women, children, and the poor. They never attacked without warning. This was known as the Code of Chivalry.

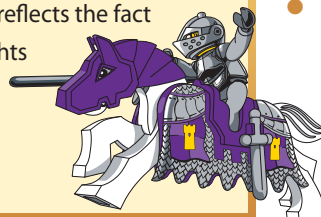
- Review the words introduced on Day 1. Have the students clarify the meaning of the words using examples from the story and making connections to the chivalry.
- Help students understand that **chivalry** and **brave deeds** were more than battles. Saint George (later known as the Red Cross Knight) kept his promise, did not give up, and gave his monetary reward to the poor.

#### Continue

- Ask students whether **chivalry** exists today. Does it have a place in modern society?
- Challenge students to think of a time when they did a **brave deed**, became a champion of a person or a cause, or made a **pledge**.

## Chivalry Is Not Dead

The word **chivalry** comes from the French words *cavalier* and *chevalier* (horseman) and reflects the fact that the first knights were soldiers on horseback.



### DAY 3

#### Connect

- Have students share their examples of chivalrous deeds.
- Tell students they will celebrate their good deeds in a class book. Titles might include *Chivalry Is Not Dead!* or *Good Deeds for the Twenty-First Century*.

#### Construct

- Model the following using the **Magnificent Language Organizer** (page 21):
  - Write a summary of a **good deed** or an act of **chivalry** in the center box.
  - Use your senses to **visualize** the event.
  - Brainstorm words (figurative language) that “paint pictures.”
  - Check the word wall for ideas.
- Using words and phrases from the graphic organizer, have students write drafts of their stories.
- Remind students that in the tradition of great legends and storytelling, “stretching the truth” is allowed!

#### Contemplate

- Have students choose partners to review their word choices. Each pair must highlight magnificent words or phrases and revise “not so magnificent” language. They must use at least one word from each of the five categories.

#### Continue

- Have students share their most magnificent language with the class.
- Encourage students to continuously revise language as they write subsequent drafts of their stories.
- Conclude with the reminder that everyday acts of kindness are the bravest deeds of all.

## A TRUE LEGO® TALE

Like the knights of times gone by, Ole Kirk Christiansen followed a code of excellence. His story and the creation of LEGO® toys could be a fairy tale, but it is fact. Christiansen opened a carpentry shop in Billund, Denmark, in 1916. His major business was building houses and making furniture for farmers in the region. In 1932, he began making wooden toys, including buses, animal pull-toys, and piggy banks. Denmark was in the middle of the worldwide Great Depression at that time, but Christiansen believed that parents would still want to provide well-made educational toys for their children. In 1932, he chose the name LEGO for his new business. The name is a contraction of two Danish words, *leg* and *godt*, meaning “play well.” By coincidence, LEGO also means “I put together” in Latin.

In 1949, Christiansen introduced Automatic Binding Bricks, interlocking plastic blocks that were the forerunners of today's LEGO bricks. In the 1950s, Christiansen's son, Godtfred, began to develop a high-quality, comprehensive toy system that would provide unlimited play opportunities for boys and girls of all ages at any time of the year. In 1958, the company introduced a brick with tubes as well as studs underneath. Two eight-stud bricks (“two by fours”) of the same color could now be joined 24 ways. Three bricks of the same color could be combined 1,060 ways. This allowed children to build tall structures of practically any shape. By the end of the 1950s, LEGO bricks had become the most popular toys in Europe. The LEGO Group continues to enhance the system, introducing new sets, special pieces and colors, and new characters and stories each year. Today, LEGO toys are sold in 130 countries and have inspired creative play for more than 400 million children.

## LESSON 1 ASSESSMENT: KNIGHT TIME TALES

Lesson 1 focuses on the strategies that storytellers and writers use to make their narratives more interesting and exciting. Students' narratives will be scored based on

- development of writing skills
- use of storytelling elements, including plot (events, actions) and literary devices, such as suspense and figurative language.
- understanding and using concepts of chivalry, such as heroism and good deeds, in a story.

## SCORING RUBRIC

This rubric provides a framework for assessing a student's performance based on the criteria above.

### PARTIAL

Students create a story, but the product may not demonstrate grade-level skills. Younger students use pictures to help tell their stories, but the pictures may not always relate directly to the story they are trying to tell. Older students might fail to use sensory details in their writing, or use such words inappropriately. Stories demonstrate a plot, but may lack chronological clarity or clear progression of events (beginning, middle, and end). The themes of heroism and/or good deeds may be missing or misrepresented. Students in Grades 5 and 6 attempt to use literary devices such as symbolism, imagery, and metaphor, but may fail to use them appropriately or effectively. The story may lack a sense of suspense or excitement.

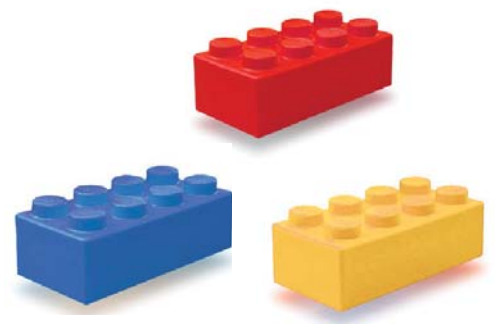
### ESSENTIAL

Students create a story that demonstrates grade-level skills. Younger students use pictures to help tell their stories, but the pictures may not always relate directly to the story they are trying to tell. Older students use sensory details in their writing, but may fail to vary word choice. Stories display a plot that demonstrates chronological clarity and a clear progression of events (beginning, middle, and end). The story shows the student's understanding of the themes of

heroism and/or good deeds. Students in Grades 5 and 6 use literary devices such as symbolism, imagery, and metaphor, although the story may lack a sense of suspense or excitement.

### EXCEPTIONAL

Students create a story that exceeds grade-level expectations. Younger students use pictures to tell their stories successfully. Older students use sensory details in their writing, adequately varying word choice to make the story more interesting. The story contains a plot that demonstrates chronological clarity and a clear progression (beginning, middle, and end). The story shows understanding of the themes of heroism and/or good deeds. Students in Grades 5 and 6 use literary devices such as symbolism, imagery, and metaphor. Stories at all grade levels create a sense of suspense or excitement.



## GRADES K-2 EXPERIENCE

## Castle Adventure Storyboard Template

[illegible]

LESSON ONE

GRADES 3-4 EXPERIENCE

# Sample Castle Adventure Story Card

FRONT

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

Title of Story: \_\_\_\_\_

Fantastic Idea: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Character: \_\_\_\_\_

BACK

Author's use of suspense: \_\_\_\_\_

Examples: 1. \_\_\_\_\_

2. \_\_\_\_\_

3. \_\_\_\_\_

Did these objects, characteristics or events make the story more exiting?: \_\_\_\_\_

Why or why not?: \_\_\_\_\_

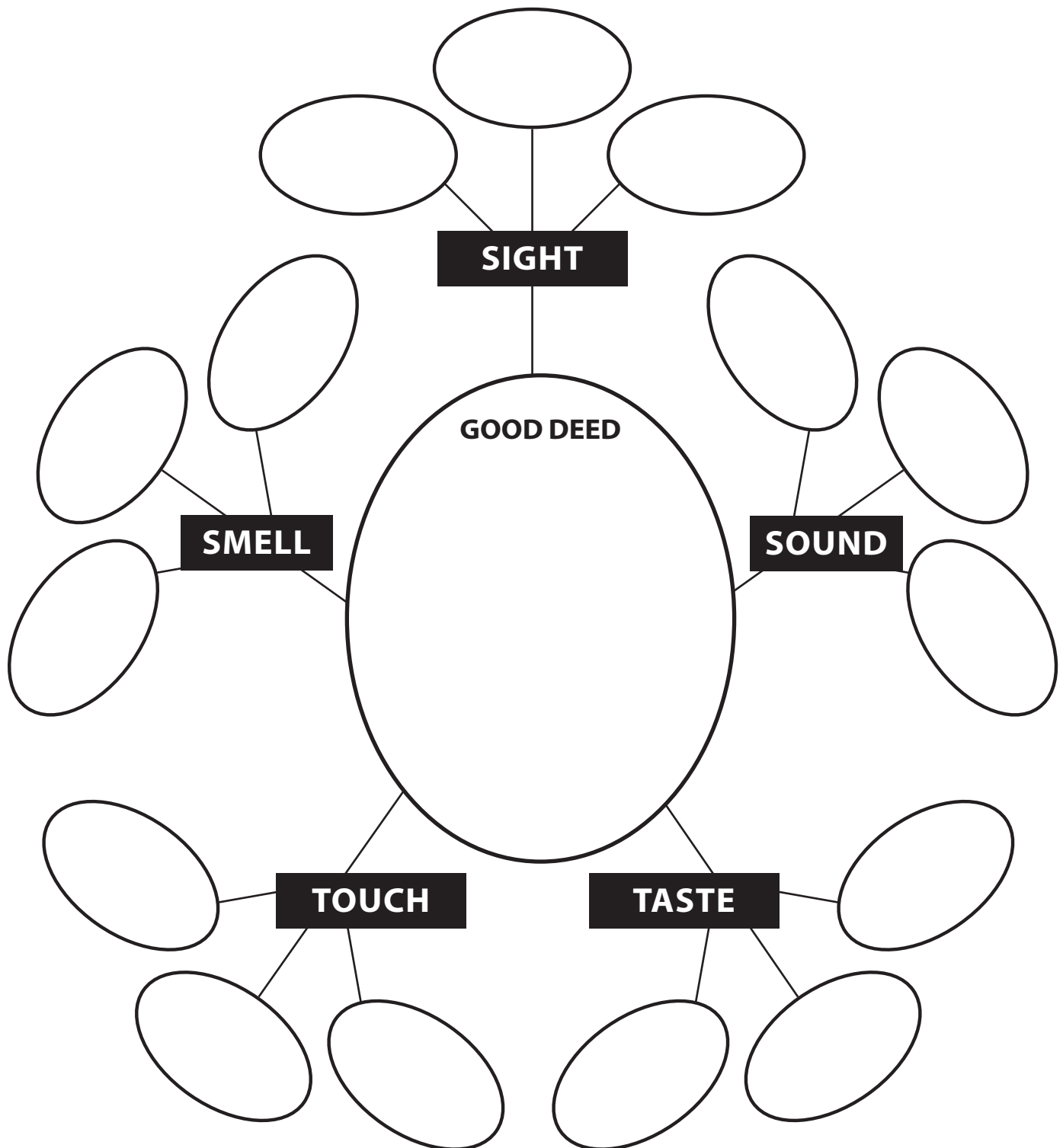
\_\_\_\_\_

\_\_\_\_\_



GRADES 5-6 EXPERIENCE

# Magnificent Language Organizer



## LESSON TWO

### Lesson Two NOT QUITE A FAIRY TALE: THE CASTLE COMMUNITY

Photo courtesy of the LEGO Group



LEGO® Master Builders created this model of Neuschwanstein Castle, located in Bavaria, Germany.

### Castles: Places of Work and Play

In contrast to the tales told in Lesson 1, Lesson 2 presents a realistic portrait of what it was like to be a part of a castle community. Through their research, students learn the structure of castle society and the symbiotic relationship of “work for protection” that existed between the noble and peasant classes. Other research topics include the types of food eaten, clothes worn, and games played. While rank had its privileges, life was often hard for both prince and peasant. Great halls were drafty and damp, cottages were cramped, dark, and smelly, and disease and war were ever present.

#### OBJECTIVES

Students will

- use a variety of resources to research the castle community
- explain the difference between fiction and nonfiction resources and the importance of each
- describe the structure of medieval society
- compare the lives of people in different levels of medieval society
- give examples and describe different types of work done by people in the castle community
- experience the games and celebrations typical of the era
- communicate information about the castle community orally and in writing

#### YOU WILL NEED ...

##### GRADES K-2: APPRENTICE BUILDERS

###### Materials

- *Adventures in the Middle Ages* by Linda Bailey and Bill Slavin
- equipment for selected games and dances
- simple costumes, such as scarves, hats, cloaks, or crowns, for a medieval “feast”
- Visual Aid: **Noble Children** and **Peasant Children** (page 32)
- Student Handout: **Castle Community Sorting Game** (page 33)

###### Time

Three class periods

##### GRADES 3-4: JOURNEYMAN BUILDERS

###### Materials

- *A Medieval Feast* by Alik
- nonfiction and historical fiction resources
- potential research topics and resources
- Student Handout: **Research Grid** (page 34)
- classroom Web page

###### Time

Three or four class periods

##### GRADES 5-6: MASTER BUILDERS

###### Materials

- *Catherine Called Birdy* by Karen Cushman
- nonfiction and historical fiction resources
- *Good Master! Sweet Ladies: Voices from a Medieval Village* by Laura Amy Schlitz
- Samples of different forms of narrative and poetry, such as blank verse, two voices, list poem, and others.

###### Time

Three or four class periods

## LESSON TWO

### FOCUS QUESTIONS

Use these discussion questions to help students focus on key ideas in Lesson 2:

- What new facts have you learned about life in a castle? How have your thoughts changed based on your **research**?
- What resources are available to learn about the Middle Ages?
- How is **historical fiction** different from **nonfiction**? How are both types of information used to study history?
- What would it be like if you were a member of a castle **community**? How are the lives of **noble lords** and **ladies** and **peasants** alike and different?
- What kinds of jobs did people have in the castle community? How are castle jobs similar to and different from the kinds of jobs people do today?
- How is a **medieval feast** like a holiday celebration today? What games and songs are still played today?
- How are the **jesters**, jugglers, minstrels, **troubadours**, and acrobats of medieval times like today's entertainers?



### LEGO® CASTLE ADVENTURE WEB SITE

On the exhibit Web site, students can learn what it might have been like to live in a castle community and consider the jobs they might have. They can explore the roles of a musician, a scullery maid, a blacksmith, a marshall, or a fletcher. In one interactive experience, they play the role of noble lords who must decide how to manage multiple variables in order to command their subjects and build a castle. Students can explore the realities of life in the Age of Chivalry at <http://MyCastleAdventure.com>.



### LEGO LORDS AND LADIES

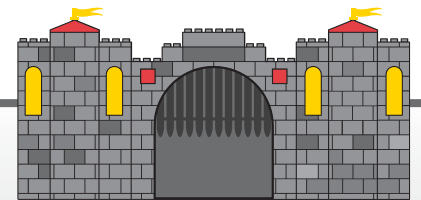
Since 1974, the LEGO Group has been populating the worlds that children build with human and animal figures. The idea came from Ole Kirk Christiansen's grandson, Kjeld Kirk Kristiansen, the current LEGO Group owner. He believed that adding figures would allow children to include role playing in their LEGO building experiences. The LEGO family figures, introduced in 1974, were the first to arrive on the scene. The first LEGO minifigures inhabited the 1978 Town, Space, and Castle themed play sets. In 1984 the Castle series was introduced with knights, horses, and other new elements. The Castle population has been growing and taking part in children's imaginary adventures ever since. In 2004, LEGO KNIGHTS' KINGDOM™ won the Toy of the Year award for Best Boys' Toy.



### Royal Tutor Tip

#### Discovering the Middle Ages

The magazine *Kids Discover: Middle Ages* provides a short but comprehensive pictorial review of medieval society. Single and bulk issues are available: <http://www.kidsdiscover.com>



### LANGUAGE BRICKS FOR ACCURATE RESEARCH

community	noble
feast	nonfiction
historical fiction	peasant
jester	troubadour
medieval	research
lady	voice
lord	

# **GRADES K-2 EXPERIENCE: APPRENTICE BUILDERS** **SCHOLAR'S CRAFT: GROWING UP PRINCE AND PEASANT**



*Most peasants were farmers who worked the land that belonged to a lord or other noble. They lived in small villages near the lord's castle.*

Students participate in a simple simulation illustrating that most individuals in the castle community were peasants, not nobility, and experience a variety of games played during the medieval era. The **Castle Community Sorting Game** (page 33) highlights the differences in the lives of peasant and noble children and provides students with opportunities to tell stories based on the characters.

## **ACADEMIC STANDARDS**

### **National Standards**

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature; Standard 7: Research; Standard 8: Using Information Resources

### **Indiana's Academic Standards**

**Social Studies** — K.1.1, K.1.2, K.1.3, K.2.1, K.3.6, K.4.2, K.4.4, 1.1.1, 1.1.2, 1.1.5, 1.1.9, 1.1.10, 1.2.1, 1.2.3, 1.4.2, 2.1.4, 2.1.7, 2.2.5

**English Language Arts** — K.2.2, K.2.3, K.3.1, K.4.6, K.4.7, K.4.8, K.7.2, K.7.5, 1.2.2, 1.2.3, 1.2.5, 1.2.7, 1.4.4, 1.4.5, 1.4.6, 1.7.1, 1.7.2, 1.7.5, 2.2.3, 2.2.4, 2.2.9, 2.7.1, 2.7.2, 2.7.9, 2.7.12

*\* Indicators in bold type are included in the Indiana Core Standards.*

## **PROCEDURES**

### **Introductory Experience**

- Choose one king and one queen, two **lords**, and four knights from among the students. Have the remaining students play the role of **peasants**.
- Tell the king and queen to sit at the front of the class in their castle (one large space). Have the two lords and their attending knights sit in each of their castles (two large spaces). Crowd the remaining peasants around and close to the castle "walls."



## **Royal Tutor Tip**

For the directions and words to a variety of games, see  
[http://www.geocities.com/traditions\\_uk/play.html](http://www.geocities.com/traditions_uk/play.html)

- Explain that most of the people in the castle **community** were peasants. Life for the king and knights was very different from the life of the peasants.

## **DAY 1**

### **Connect**

- As a class, examine the pictures on "A Peasant's Life" in the book *Adventures in the Middle Ages* by Linda Bailey and Bill Slavin. Encourage students to ask questions and point out features related to clothing, housing, food, and work.
- If students are a bit discouraged by the life of a **peasant** child, tell them they are in luck because today there is a Medieval Fair! A medieval fair is a little like a school carnival, with food, games, music, and opportunities to play with friends!



## Construct

- Explain that many of the games played in **medieval** times are still played today. Some examples are Hide and Seek, Blind Man's Bluff, and Musical Chairs. Lesser-known games are Hunt the Slipper, Orange and Lemons, and Bocci.
- Let students play a variety of games.
- Play early music so students can dance. Provide drums, triangles, and whistles for students who want to play along with the music. Provide ribbons or scarves for the dancers.

## Contemplate

- Explain that peasant children did not go to school. Few if any peasants learned to read or write. By the age of 12 most were doing adult work in the lords' fields, kitchens, or stables.
- Ask: "How would a peasant child feel?"

## Continue

- As a group, create a list of the positive and negative aspects of peasants' lives.
- Tell students that tomorrow it is their turn to try out the life of a **noble** child.

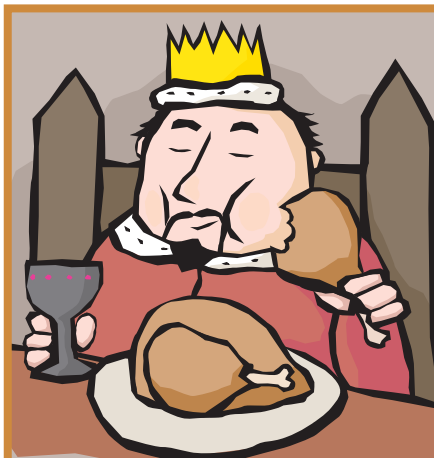
## DAY 2

### Connect

- Ask students to recall what they learned about peasant life. What did they like best? Worst?

### Construct

- Continue "reading" the pictures from *Adventures in the Middle Ages* that describe "A Medieval Castle" and the nobles' lives within it.
- Point out features related to clothing, housing, food, and chores.
- Return to the section on the great hall and discuss the life of a **jester**, an acrobat, and a **troubadour**.
- Dramatize a medieval banquet. Have students take turns entertaining the king and queen.



## Table Manners in the Dark Ages

Table manners were quite different in medieval times. There were no forks; large pieces of stale bread served as plates. Cups were often shared. Try eating dinner tonight with only your fingers and a knife. Watch out for the peas!

### Contemplate

- Explain that at age 7 most noble children were sent away to another castle to be schooled. Young boys might become pages, the first step to becoming a knight. Young girls were taught how to sew, sing, and dance.
- Have students think about the positive and negative aspects of nobles' lives, and add their responses to the previous list.

### Continue

- Help students understand not only the differences in noble and peasant lives but also the differences in children's lives past and present.

## DAY 3

### Connect

- Display figures of peasant children (see page 32). Quickly review what students learned about peasant children's lives.
- Repeat with figures of noble children.

### Construct

- Show the object cards from the **Castle Community Sorting Game** (page 33) one at a time. Discuss what each is.
- Depending on the grade level, have pre-cut cards or uncut templates for the game, one per child or group.
- Explain to the students that the cards represent objects from peasant or noble children's lives. Their job is to match the object to the correct child, noble or peasant.

### Contemplate

- Ask students to explain why an object belongs with a peasant or noble child.

### Continue

- Encourage students to make up stories related to castle life as they sort the object cards.



## Royal Tutor Tip

Laminate a set of figures and objects suitable for a flannel/magnetic board. Use in storytelling.

# **GRADES 3–4 EXPERIENCE: JOURNEYMAN BUILDER** **SCHOLAR’S CRAFT: FEASTS, FESTIVALS, AND** **EVERYDAY LIFE**



*In a castle, feasts usually took place in the great hall.*

Students participate in a simulation illustrating that most individuals were peasants, not nobility. They learn about a medieval feast from start to finish, and research different aspects of castle life. Through the use of a research grid, they learn how to ask questions and collect information from multiple sources.

## **ACADEMIC STANDARDS**

### **National Standards**

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature; Standard 7: Research; Standard 8: Using Information Resources

### **Indiana’s Academic Standards**

**Social Studies:** Grades 3 and 4 standards are specific to local and regional communities in Indiana. However, overarching concepts, including how people and events bring about change, and skills, such as the use of community resources to gather information and learning to distinguish fact from fiction, are applicable to this unit.

**English Language Arts:** 3.2.1, 3.2.2, 3.2.6, 3.2.8, 3.4.2, 3.4.4, 3.5.5, 3.5.8, 3.7.3, 3.7.5, 4.2.1, 4.2.2, 4.2.5, 4.2.6, 4.4.5, 4.4.6, 4.4.7, 4.5.3, 4.7.1, 4.7.12

*\* Indicators in bold type are included in the Indiana Core Standards.*



## **Royal Tutor Tip**

Recite the nursery rhyme “Sing a Song of Sixpence.” Live birds were sometimes put inside pre-baked pastry crusts during medieval times. When the pie was cut, the birds flew out, to the delight of the king and his court!

## **PROCEDURES**

### **Introductory Experience**

- Choose one king, two **lords**, and four knights from among the students. Have the remaining students play the role of **peasants**.
- Tell the king to sit at the front of the class in his castle (large space). Have the two lords and their attending knights sit in each of their castles (two large spaces). Crowd the remaining peasants around and close to the castle “walls.”
- Explain that most of the people in the castle **community** were peasants. Life for the **nobles** was very different from the life of a peasant. The peasants worked for the king and lords. In return the lord’s knights protected them.
- Ask students to speculate about the differences and similarities in the lives of peasants and the nobility.
- Explain that in many ways life was hard for both peasants and nobles, but even in **medieval** times people found ways to celebrate and have fun.

## DAY 1

### Connect

- Explain that a **feast** is another name for a special meal, such as a holiday dinner or banquet.
- Have the students share examples of the types of food they might have at a family feast.
- Tell the students that they are about to attend a different kind of feast — a medieval feast!

### Construct

- Show the cover and read the book *A Medieval Feast* by Alike. Explain that although the book looks like a story, it is **nonfiction**, a factual book.
- Ask the students to tell one new fact they learned about a **medieval** feast.
- List the responses on chart paper.

### Contemplate

- Ask: How was a medieval feast like a family feast? How was it different?

### Continue

- Explain that the feast is only one facet of medieval life.
- Encourage students to inspect the library center **nonfiction** materials about medieval life in order to find a topic that interests them.



## DAY 2

### Connect

- Show the students a list of potential **research** topics, such as clothing, becoming a knight, tournaments, games, medicine, and holidays.
- Briefly explain each topic. Encourage students to share what they know about the topics.

### Construct

- Have research pairs choose a topic from the list.
- Explain that the **Research Grid** (page 34) is a strategy for collecting information.
- Model the strategy using the grid.
  1. Identify a topic.
  2. Write the titles of two different resources along the top. Authors' names are optional.
  3. Write questions down the side, one per line. Use *who*, *what*, *when*, and *how* as question starters.
  4. Put answers to the questions under the appropriate resource.
- Have pairs identify three questions about their research topic and begin to gather information.

### Contemplate

- Ask students why the answers to questions may not be the same depending on the resource used. Help them understand why sources may disagree about medieval history or other topics.

### Continue

- Have students identify questions and problems related to finding information. Brainstorm solutions.

## DAY 3

### Connect

- Have students share their most interesting research discoveries.

### Construct

- Have students continue researching the questions.
- Ask pairs to share their most interesting question and research findings with the class.

### Contemplate

- Explain that **research** is a process of asking questions and finding answers.
- Ask students to describe what research skills they learned and still need to know.

### Continue

- Post research questions and answers on a classroom Web site. Invite families and friends to read research findings.

## Royal Tutor Tip

### Hear ye! Hear ye!

The Internet is the herald of modern times! Help students understand that the Internet is a useful source of information, but just because information is published in a book or on the Internet does not mean it is correct. Help them begin to develop criteria for evaluating information sources.

## GRADES 5–6 EXPERIENCE: MASTER BUILDER SCHOLAR'S CRAFT: MEDIEVAL VOICES



JOAN OF ARC

Students participate in a simulation that illustrates the hierarchical nature of medieval society. To better understand that a person's place in society was determined by birth and the limitations this system put on personal choice, students will research social roles, such as knight, jester, peasant, and lady, and provide a voice for these individuals through narratives and poetry.

### ACADEMIC STANDARDS

#### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**English Language Arts** — Standard 1: Reading; Standard 2: Reading Literature; Standard 7: Research; Standard 8: Using Information Resources

#### Indiana's Academic Standards

**Social Studies** — 6.1.4, 6.1.7, 6.1.8, 6.1.9, 6.1.19, 6.1.20, 6.1.21, 6.1.22, 6.1.23, 6.1.24, 6.2.1, 6.2.5

Grade 5 standards are specific to United States history. However, overarching concepts, such as using historical fiction and nonfiction to understand historical periods or the role of government, are applicable to this unit.

**English Language Arts** — 5.2.3, 5.2.4, 5.2.5, 5.4.5, 5.4.7, 5.4.8, 5.5.3, 5.5.5, 5.5.6, 5.7.4, 5.7.6, 5.7.10, 5.7.15, 6.2.3, 6.2.4, 6.4.2, 6.4.5, 6.4.8, 6.5.3, 6.5.6, 6.5.7, 6.7.4, 6.7.7, 6.7.8, 6.7.17

*\*Indicators in bold type are included in the Indiana Core Standards.*



### Royal Tutor Tip

#### Girl Power: Medieval Style

Eleanor of Aquitaine and Joan of Arc were exceptions to the "men only" rule!

Eleanor of Aquitaine was a powerful queen first in France and then in Britain. Joan of Arc led French soldiers into battle.

### PROCEDURES

#### Introductory Experience

- Choose one king, two **lords**, and four knights from among the boys in the class. Have the remaining students, both boys and girls, play the role of **peasants**.
- Have the king sit at the front of the class in his castle (large space). Have the two lords and their attending knights sit in each of their castles (two large spaces). Crowd the remaining peasants around and close to the castle "walls."
- Explain that the class structure of castle society was hierarchical, rigid, and determined one's role in life. **Peasants** rarely had opportunities to better themselves.
- Select a **lady** (wife) for each of the lords and knights. Explain that even **noble** women rarely had power or leadership opportunities beyond their roles as wives and mothers.



## DAY 1

### Connect

- Read the “24th Day of September” diary entry from *Catherine Called Birdy* by Karen Cushman.
- Use the passage as an introduction to **medieval** society. Ask the following questions: What is Birdy’s problem? How would you feel? How is this different from today’s society? Or is it?

### Construct

- Explain that the introductory experience highlighted the different classes of medieval society. The excerpt from *Catherine Called Birdy* focuses on the individual.
- Help students partake of medieval life via **historical fiction**.
- Divide students into literature circles, one book per group. Have students take turns reading the first chapter aloud. When finished, have the literature circles discuss what it would be like to be the main character. Continue as time permits.

### Contemplate

- Encourage the students to put themselves into the shoes (or armor) of the characters.
- Ask them how it would feel to be Birdy, the daughter of a minor noble, or a peasant shivering with cold, or a 7-year-old boy sent to a distant relative’s castle to become a knight?

### Continue

- Have students draw a person, such as a **jester**, knight, castle cook, page, or **peasant**, who will be the subject of their **research**.
- Explain that if they are to become the **voice** for their person, they must first know more about them.

## DAY 2

### Connect

- As a class, brainstorm topics or questions students might use in their research. Questions might include: What work did they do? Where did they live? What type of food did they eat? How did they entertain themselves?
- Highlight the differences between **historical fiction** and **nonfiction** resources and their respective uses.

### Construct

- Model how to group similar information under the appropriate topic or question categories. Be sure to include an *Interesting Facts* category!
- Have students research their topic using nonfiction resources.

### Contemplate

- Have student pairs practice speaking to each other like the people they chose to research, using the information gathered.
- Remind students that the goal of these conversations is not a perfect performance but to try out a variety of ideas. They should think of it as prewriting.

### Continue

- Read short sections from the book *Good Masters! Sweet Ladies! Voices from a Medieval Village* by Laura Amy Schlitz.
- Explain that students may choose different ways of communicating information about their character, such as narratives, rhymed poetry, blank verse, or even dialogue, as between Jacob Ben Salomon and Petronella.

## DAY 3

### Connect

- Review the different formats that students may use to communicate information.

### Construct

- Model how to change research notes into a chosen format, such as a list poem about a peasant woman’s life.
- Have students create monologues depicting the characters.

### Contemplate

- As students create their monologues, have them consider: What do I want others to know about me and my life?

### Continue

- As a class, have each student stand and share the voice of his or her medieval person.
- Encourage students to find their own voices through poetry, song, and story.



## Royal Tutor Tip



Try singing or rapping monologues like medieval **troubadours**!



## FUN FACT

The LEGO® minifigure has become the world's largest population group! In the last 30 years, more than 4 billion have been produced. This is almost three times the population of China and almost 12 times the population of the United States. Fortunately, they don't occupy as much space as their human counterparts!

## LESSON 2 ASSESSMENT: KNIGHT TIME TALES

Lesson 2 focuses on the differences between the lives of the nobility and the peasants. Other key concepts include the ability to differentiate fact from fiction. Students in Grades 3–6 should be able to explain the important role that research plays in this determination. Student performance will be scored based on the ability to

- explain how the lives of nobles and peasants were similar and different
- identify or describe the different artifacts and activities, such as clothing, food, entertainment, and jobs, associated with the different classes
- research and find answers to questions (Grades 3–6)
- research the roles of individuals who represent specific classes, such as a jester or a peasant woman, and write a composition that gives that person a voice (Grades 5–6)

### SCORING RUBRIC

This rubric provides a framework for assessing a student's performance based on the criteria above.

#### PARTIAL

**Grades K–2:** Students do not fully participate in class discussion or the **Castle Community Sorting Game**. As a group, students understand that there are differences between the lives of peasants and nobles, but they are unable to articulate those differences or unable to correctly complete the **Sorting Game**. Student groups are able to describe a few of the jobs in a castle community during discussion, but are unable to relate those jobs in the past to people's jobs in the present.

**Grades 3–4:** The information on the **Research Grid** is limited and/or may contain incorrect information. Supporting questions may not relate to the topic, but each question is answered using multiple sources. Or students' questions may support the topic, but students may fail to use multiple sources for information on each question. The sources used to answer the questions are not evaluated for credibility.

**Grades 5–6:** Students present their research as character monologues, but presentations are disorganized and lack details about their character's life in medieval times. Students' monologues

contain limited or inaccurate information and draw from a limited number of sources. Students' use of limited vocabulary negatively affects the presentation. Students present their monologues in first person, but fail to capture the voice of their character.

#### ESSENTIAL

**Grades K–2:** Students fully participate in class discussion and the **Castle Community Sorting Game**. As a group, students understand that there are differences between the lives of peasants and nobles, correctly completing the **Sorting Game**. Students can articulate the differences between peasants and nobles, but may need prompting to express the significance of those differences. Student groups are able to describe numerous jobs in a castle community during discussion, but are unable to relate those jobs in the past to people's jobs in the present.

**Grades 3–4:** The information on the **Research Grid** is accurate, with supporting questions that relate to the topic. Each question is answered using multiple sources, but students may fail to evaluate their sources for credibility.

**Grades 5–6:** Students present their research as character monologues. Presentations are well organized and contain details about their character's life in medieval times. Students draw information from a variety of sources, though they do not necessarily evaluate their sources' credibility. Students' use of diverse vocabulary makes for an effective presentation. Students present their monologues in first person, but may fail to capture the voice of their character.

#### EXCEPTIONAL

**Grades K–2:** Students fully participate in class discussion and the **Castle Community Sorting Game**. As a group, students understand that there are differences between the lives of peasants and nobles, correctly completing the **Sorting Game**. Students use sorting cards to provide specific examples of differences. Student groups are able to describe numerous jobs in a castle community during discussion and can relate those jobs in the past to people's jobs in the present.

**Grades 3–4:** The information on the **Research Grid** is accurate, with supporting questions that relate to the topic. Each question is answered using multiple sources that students have evaluated for credibility.

**Grades 5–6:** Students present their research as character monologues. Presentations are well organized and contain details about their character's life in medieval times. Students draw information from a variety of sources, which they have evaluated for credibility. Students' use of diverse vocabulary makes for an effective presentation. Students successfully capture the voice of their character for an engaging presentation.

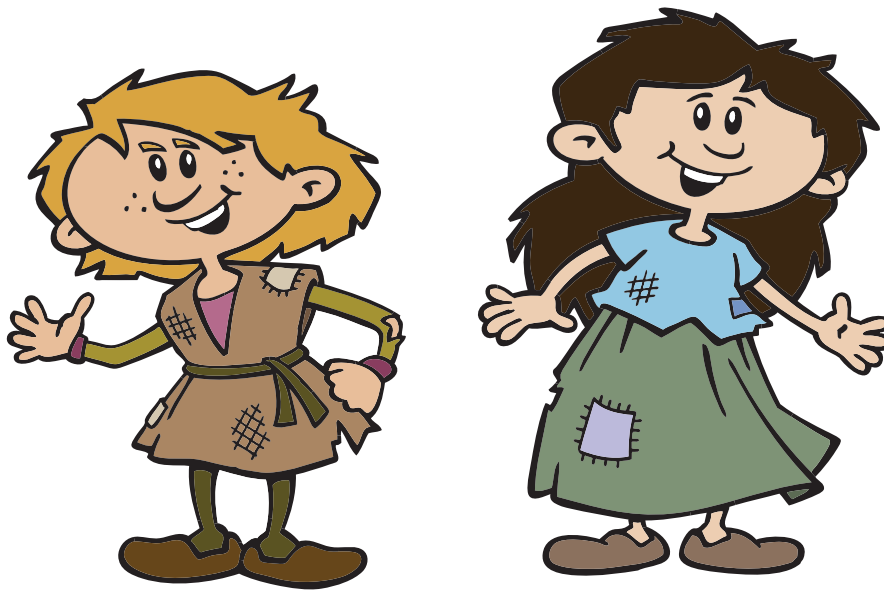
## LESSON TWO

GRADES K-2 EXPERIENCE

### Noble Children



### Peasant Children



GRADES K-2 EXPERIENCE

## Castle Community Sorting Game

1



2



3



4



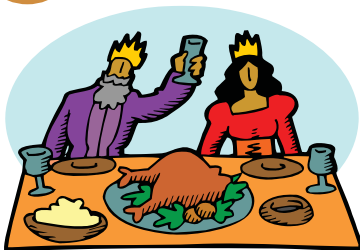
5



6



1



2



3



4



5



6



LESSON TWO

GRADES 3-4 EXPERIENCE

Research Grid

TOPIC:

QUESTIONS	Resource 1	Resource 2
	Title: _____ _____	Title: _____ _____
	ANSWERS	ANSWERS

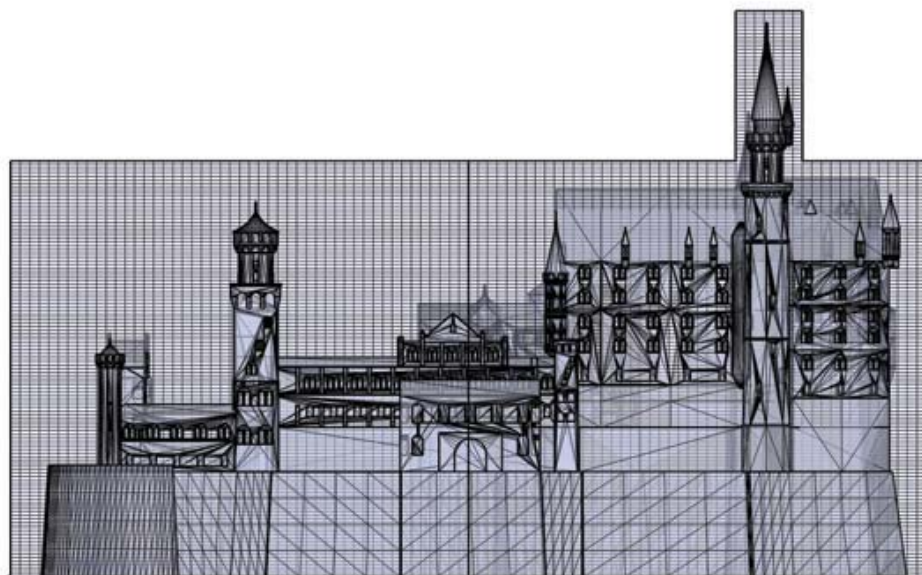


## LESSON THREE

### Lesson Three

## THICK WALLS AND HIGH TOWERS: THE ART AND SCIENCE OF BUILDING CASTLES

Photo courtesy of the LEGO Group



LEGO® Master Builders created this drawing of Neuschwanstein Castle to the exact scale of a LEGO brick.

### Castles Places of Safety and Security

The massive walls of a medieval castle, which in many cases are still standing today, highlight its role as fortress and protector. These walls also stand as symbols of determination and hope. The construction of a castle was an enormous undertaking that required not only vision but also years of labor by hundreds of workers, ranging from skilled craftsmen to unskilled peasants. In Lesson 3 students learn that each part of a castle was designed to meet a specific need, whether for defense or daily life. Students may be surprised that the concepts and skills used to build medieval castles (and, in some cases, to take them apart) are the same ones found in their math textbooks!

#### OBJECTIVES

Students will

- understand that castles were first and foremost fortresses
- identify the different parts of a castle and explain how each part added to its security
- identify geometric shapes (two-dimensional) and solids (three-dimensional) used in castle design
- use measurement tools (Grades 3–6) and calculate scale (Grades 5–6)
- use patterns and proportion to decorate the great hall (Grades K–4)
- build catapults and estimate and measure lengths of shots (Grades 5–6)

#### YOU WILL NEED ...

##### GRADES K–2: APPRENTICE BUILDERS

###### Materials

- pictures and drawings of castles
- pre-cut geometric shapes (assorted sizes of squares, rectangles, circles, and triangles)
- Visual Aid: **The Parts of a Castle** (page 47)
- index cards with names of castle parts, one term per card
- picture or sample of tapestry with repeated pattern
- sentence strips for pattern
- measurement tools, including rulers and meter sticks
- paper, glue, scissors, and a variety of coloring tools

###### Time

Three class periods

##### GRADES 3–4: JOURNEYMAN BUILDERS

###### Materials

- pictures of castles
- variety of texts about castle structures
- excerpt about a castle's function as a fortress, such as "Build It Strong" in *Days of the Knights* by Christopher Maynard
- boxes and tubes of various sizes, construction paper/tag board, popsicle sticks
- tape, glue, markers, markers, rulers, scissors, string/yarn
- digital camera
- graph paper (¼-inch scale)
- easel pad with grid (1-inch scale), cut to banner sizes
- ruler, meter stick, tape measure

###### Time

Four class periods

## LESSON THREE

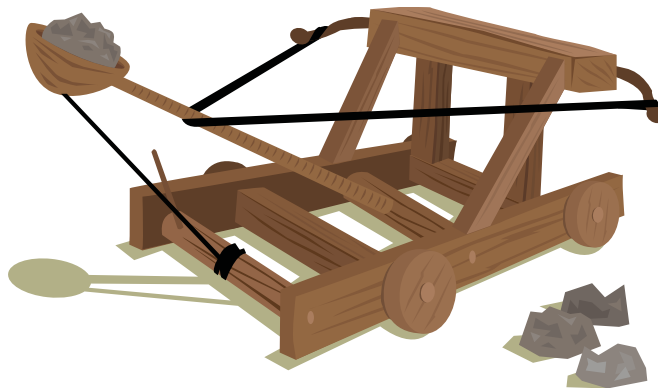
### GRADES 5–6: MASTER BUILDERS

#### Materials

- *Castle* by David Macaulay
- Visual Aid: **Plan of a Castle**
- easel pad, plain or with 1-inch grid
- bulletin board or shelf paper for the Castle Time Line
- multiple copies of *Castle* or one book divided into separate sections
- drawing paper, pencils, and drafting templates
- rulers, meter sticks, tape measures
- materials for catapult (varies depending on choice of plan)

#### Time

Three to four class periods



*The catapult was a fearsome weapon that could damage even a well-built castle.*

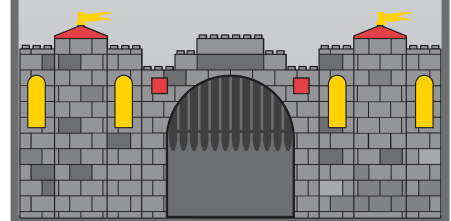


### LEGO® BRICK FUN FACTS

The basic element in all LEGO creations is the LEGO brick, which is a small, precision-molded piece of plastic with various studs and tubes. LEGO bricks are available in 53 different colors. Three eight-stud bricks of the same color can be combined in 1,060 different ways. LEGO bricks are much more than toys. They are used in classrooms from preschool to university to teach everything from language skills, math, and science to engineering and technology principles.

### LANGUAGE BRICKS: BUILDING CASTLES

- area
- breach
- catapult
- fortress: keep, inner and outer curtain, bailey, dungeon, great hall, moat
- geometric shapes: square, triangle, rectangle, circle
- geometric solids: cube, cone, pyramid, cylinder, rectangular
- perimeter
- scale
- tapestry



### FOCUS QUESTIONS

- How did the castle's role as a **fortress** influence its design and size?
- What were the parts of a castle and how did each part make the castle more secure?
- What part did math play in the construction of castles?
- How did art make a castle a home?
- What skills do you need to build a castle . . . and to destroy it? (Grades 5–6)
- What do modern-day castles look like? How are they different or similar to medieval castles? What are their uses? How does their purpose influence their design and size?



## Royal Tutor Tip

Adjust the number of shapes and the complexity of the collage pictures to the developmental level of the students. Students may finish the picture using crayons or markers.

## PROCEDURES

### DAY 1

#### Connect

- Show students a picture of a castle. Encourage them to describe what they see.
- Explain that castles were made up of many **geometric shapes**, such as squares, triangles, rectangles, and circles.
- Identify the different shapes found in the castle picture.
- Look at several other castle pictures, stopping to identify the different shapes.

#### Construct

- Highlight the basic parts of a castle, such as the walls, towers, drawbridge, narrow windows, and **moat**, and explain their uses.
- Model how to make a castle collage using geometric shapes for the various parts of a castle.
- Have students create a castle collage using pre-cut shapes. Older students may draw and cut out shapes for the collage. Encourage older students to experiment with different designs before they glue down the final plan.

## GRADES K–2 EXPERIENCE: APPRENTICE BUILDER BUILDER'S CRAFT: CASTLES INSIDE AND OUT



©2008 Cathy Hamaker

*Arundel in West Sussex, England, is a restored medieval castle from the time of King Edward the Confessor, who reigned from 1042 to 1066 A.D.*

Students identify two-dimensional shapes used in castle construction, create a castle collage using assorted shapes, and design tapestries using repeated patterns of color, shape, or line. They understand that the castle's primary purpose was to keep the community safe but that it also served as a home for the lord and his family.

## ACADEMIC STANDARDS

### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**Math** — PreK–2: algebra (patterns), geometry (two-dimensional shapes, visualization, and problem solving)

### Indiana's Academic Standards

**Social Studies** — K.1.1, K.2.1, 1.1.1, 1.1.2, 1.1.9, 2.1.1, 2.1.7, 2.2.2,

**Math** — K3.2, K.4.1, K.4.2, K.6.1, 1.4.1, 1.4.2, 1.4.4, 1.4.7, 2.4.1, 2.4.2, 2.4.3, 2.4.5

*\* Indicators in bold type are included in the Indiana Core Standards.*



# LESSON THREE

## Contemplate

- During construction, ask students to describe their castles. Encourage them to identify the different shapes, to sort pieces by shape, size, and color, and to compare the relative sizes of shapes.

## Continue

- Explain to students that shapes are all around us. Challenge students and their families to see how many shapes they can identify in their own homes.



## Royal Tutor Tip

### Beaumaris Castle, Wales – Main Gate

The books *Woof! Woof!* (David A. Carter), *Grandfather Tang's Story* (Robert Andrew Parker), and *Look! Look! Look!* (Nancy Elizabeth Wallace) combine geometric shapes and storytelling.

- Explain that today the students are going inside a castle.

## Construct

- Introduce **The Parts of a Castle** (page 47), showing the different areas of the castle: the **bailey**, **keep**, **great hall**, sleeping rooms, kitchen, and **dungeon**. (See David McCaulay's **Castle**)
- Have the class match each numbered part of the castle to its correct name. Start with familiar structures, such as the kitchen and sleeping rooms.
- Model how to find unfamiliar terms in the dictionary or glossary.
- As each structure is labeled, review and reinforce the concept that the use of the structure often determined its size and shape.

## Contemplate

- Ask students to consider the many safeguards built into the castle.
- Have students identify safeguards in their homes. How are they different from or similar to those in the castle?

## Continue

- Remind students that a castle was also a lord's home, so tomorrow they will decorate the **great hall**.



## Royal Tutor Tip

### Beaumaris Castle, Wales – Inner Ward or Bailey

The book *Adventures in the Middle Ages* by Linda Bailey and Bill Slavin has a good castle diagram on pages 30–31.

For Kindergarten, divide the sentence strips into several sections using vertical lines. Each section holds one element of the pattern.

## DAY 3

## Connect

- Ask the students to identify and describe the many activities that go on in the great hall.
- Encourage them to draw information from the different stories and informational texts used in previous lessons.

## Construct

- Explain that the castle and especially the **great hall** were often cold and drafty. To make the castle warmer and more colorful, the walls were covered with **tapestry**, colorful pieces of fabric.

## Continue

- Show a picture or example of a **tapestry** with a repeated pattern and explain that tapestries were often made up of patterns, repeated colors, shapes, and lines.
- Model how to make patterns out of repeated shapes and colors using sentence strips.
- Have students create a repeated pattern.
- To make individual tapestries, demonstrate how to cut the patterns apart at the repeat and glue to colored pieces of construction paper.

## Contemplate

- Have students think about the clothes they wear and the homes they live in. Challenge them to find repeated patterns in their classroom and homes.
- Explain that the students will be visiting the exhibit **LEGO® Castle Adventure**, where they can use what they have learned to build their own castle!

## DAY 2

## Connect

- Have volunteers share their castle collages with the class, highlighting the different shapes used. Have older students describe the attributes of the shapes they used.

## GRADES 3–4 EXPERIENCE: JOURNEYMAN BUILDER BUILDER'S CRAFT: CASTLE BASICS

©2008 Cathy Hamaker



*Looking down at the moat from the keep at the drawbridge of Arundel Castle, Wales.*

Students identify three-dimensional forms in castle design, research different parts of the castle with a focus on their uses, and design and enlarge a banner for the great hall. Small groups build castles using geometric solids, such as cubes and cylinders. They understand that the size, form, and design of the castle's parts were influenced by their uses.

### ACADEMIC STANDARDS

#### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Places, and Environment

**Math** — Grades 3–5, Geometry: Analyze the characteristics of geometric shapes and solids and use visualization and spatial reasoning to solve problems; Measurement: Understand the measurable attributes of objects . . . and the processes of measurement.

#### Indiana's Academic Standards

**Social Studies** — Standards for Grades 3 and 4 are specific to local and regional communities and Indiana. However, general concepts, including how people and events bring about change, and skills, such as using community resources to gather information and distinguishing fact from fiction, are applicable to this unit.

**Math** — 3.4.3, 3.4.4, 3.4.10, **3.5.1**, 3.6.4, 4.5.1, **4.5.3**, 4.5.5, 4.5.7, 4.7.5

*\* Indicators in bold type are included in the Indiana Core Standards.*

### PROCEDURES

#### DAY 1

##### Connect

- Ask students to think about a castle. It may be from a movie, book, or their imagination.
- Invite students to describe a castle using words, phrases, and simple pictures. Put this information on the board.
- Incorporate student ideas into a simple castle drawing; label parts where appropriate.
- Explain to students that they are going to build castles, but before they do, they need to learn more about their construction.

##### Construct

- Show students the following castle schematic: [http://www.castles.org/Kids\\_Section/Castle\\_Story/parts.htm](http://www.castles.org/Kids_Section/Castle_Story/parts.htm).
- Explain that castles are assembled from **three-dimensional** forms.
- Review the different **geometric solids**, such as cubes, cones, pyramids, and cylinders, included in the castle design. Have students identify the different forms and describe their attributes.
- Explain that the form and size of the castle parts were often influenced by their purpose.
- Click the "Previous Page" button for more information about castle structures and their uses.

##### Contemplate

- Help students understand why the respective forms and sizes of the castle parts were (or were not) good choices for the castle's role as **fortress**. For example, the walls were very thick to resist invaders. The tower windows were small, permitting archers to shoot many arrows out but allowing few to come in!



## LESSON THREE



### Castle fun fact

Rounded towers and walls withstand battering rams and flying objects better than angled ones.

#### Continue

- Conclude by reading aloud a short passage about the castle as a **fortress**. “Build It Strong” (pages 26–29) in *Days of the Knights: A Tale of Castles and Battles* by Christopher Maynard is one resource.
- Explain that castle construction begins tomorrow!



### Royal Tutor Tip

Avery Hart and Paul Mantell’s book *Knights & Castles: 50 Hands-On Activities to Experience the Middle Ages* provides useful tips to help students build castles.

#### DAY 2

- Review the different parts of the castle. Encourage students to incorporate many of these parts in their castle construction.

#### Construct

- Show building materials.
- Compare geometric solids (Day 1) to building materials. Have students brainstorm potential uses for materials.
- In small groups, have students construct simple three-dimensional castles.

#### Contemplate

- Have students identify the challenges they faced building their castles and compare them to those faced by medieval builders. Ask how these challenges are alike and different.

#### Continue

- Explain that medieval builders were also master mathematicians. Tomorrow students will put their math skills to work completing castle calculations.

#### DAY 3

#### Connect

- Explain that most medieval castles were destroyed by war or, when no longer needed, by neglect. The enormous stone walls were often broken down and dragged away for use in new structures.
- Today, castles, new and old, are often sold. Show examples of castles for sale (<http://www.castles-for-sale.com>).

#### Continue

- Explain that realtors provide potential buyers with a buyer’s guide containing information about the size and features of a home.
- Tell students their job is to create a buyer’s guide for their castles.

#### Construct

- Review the **Castle For Sale — Buyer’s Guide** requirements below. Each guide must include:

##### Drawings

- front of the castle, including features such as the drawbridge, towers, window slits, and banners
- different perspectives of the castle or featured parts, such as the **great hall** (optional)

#### Measurements/Dimensions

- wall (**curtain**), including length and height, **perimeter**, and **area** within walls
- tower, including height and circumference
- **keep**, including length and height of walls and **perimeter** or circumference, depending on shape and **area** (optional)
- dimensions of featured parts (optional)
- Explain that measurements must be correct to the nearest half inch (Grade 3) or quarter inch/eighth inch (Grade 4).
- Have students complete their castle buyer’s guide with appropriate calculations.

#### Contemplate

- Challenge students to consider the role math plays in the lives of builders, yesterday and today.

#### Continue

- Explain that math was used not only to build the exterior of the castle but also to decorate its interior. Tomorrow’s task will be to design banners for the **great hall**.



## friend or foe?

Cloaked in armor from head to toe, knights often found it difficult to tell friend from foe! As a result they put a personal design, called a coat of arms, on their shields. These designs later became symbols for entire noble families and were used to decorate homes and clothing.

### DAY 2

#### Connect

- Review Lesson II in the book *A Medieval Feast* by Aliko, focusing on the banquet scenes, or show pictures of the interior of the **great hall** in a castle.
- Point out the banners and the coat of arms that adorn the walls. Explain that the different banners or coats of arms often represented different noble families.
- Discuss logos or symbols that are familiar to students, such as the logos used for fast food chains or clothing.
- Ask students: If you wanted to design a logo or symbol for your family, what would it be?

#### Construct

- Using ¼-inch graph paper, have students draw a personal coat of arms for their families. It may be a picture, geometric design, or repeated pattern. Have students use *Kids Discover: Knights and Castles* or other resources to find different types.
- Using the grids, model how to transfer the pattern from the graph paper to the larger 1-inch easel pad paper.
- Have students paint or color the coat of arms.

#### Contemplate

- Compare the size of the original drawing to the completed banner. Ask the students how big the banner would be if they used a different **scale**, such as 2 inches or 1 foot. Why does the shape of the design stay the same?

#### Continue

- Explain that the class will be visiting the exhibit LEGO® *Castle Adventure*, where they can use what they have learned to build their own castle!



## Create a Coat of Arms Online

Encourage your students to visit the LEGO

*Castle Adventure* Web Site,

<http://MyCastleAdventure.com>. On the **Kingdom Settings** section of the site, individual students can identify the symbols that are important to them and create a coat of arms. Students can edit the shape, colors, divisions, and charge (symbol) of their coat of arms and update it whenever they want. The various coats of arms created by children will be displayed so that all can view one another's designs.

## GRADES 5–6 EXPERIENCE: MASTER BUILDER BUILDER'S CRAFT: CONSTRUCTION AND DESTRUCTION

Students calculate perimeters and areas and draw the castle plan to scale. They develop a time line outlining the construction of a castle and build catapults, a primary weapon of castle destruction. They understand the skill and effort involved not only in building castles but also in destroying them.



Adam, age 13, enjoys building LEGO® castles and writing fantasy stories about the adventures of castle dwellers.

### ACADEMIC STANDARDS

#### National Standards

**Social Studies** — Culture; Time, Continuity, and Change; People, Place, and Environment

**Math** — Grades 3–5 and 6–8, Number and Operations: Compute fluently and make reasonable estimates; Geometry: Use spatial reasoning and geometric modeling to solve problems; Measurement: Understand measurable attributes of objects and units of measurement and apply appropriate techniques to determine measurements.

#### Indiana's Academic Standards

**Social Studies** — **6.1.4, 6.1.7, 6.1.8, 6.1.9, 6.1.18, 6.1.19, 6.1.20, 6.1.22, 6.1.24, 6.2.5**

Grade 5 standards are specific to United States history. However, overarching concepts, such as using historical fiction and nonfiction to understand historical periods or the role of government, are applicable to this unit.

**Math** — **5.2.2, 5.2.6, 5.4.1, 5.5.1, 5.5.2, 5.5.3, 5.7.1, 5.7.2, 5.7.7, 5.7.8, 6.2.6, 6.2.7, 6.5.1, 6.5.2, 6.7.1, 6.7.3, 6.7.4, 6.7.9, 6.7.10**

*\* Indicators in bold type are included in the Indiana Core Standards.*

### PROCEDURES

#### DAY 1

##### Construct

- Read the preface (page 5) of the book *Castle* by David Macaulay. Explain that the information about building the castle and town is factual. The story of the town and Lord Kevin, while fictional, is based on real events.
- Read pages 7–10 of *Castle*. Examine Macaulay's diagram of the castle and discuss how the choice of location and design of the castle and surrounding area were guided by one purpose, protection!



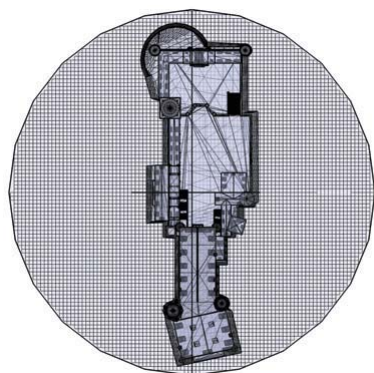


Photo courtesy of the LEGO Group

The “footprint” of a castle drawn to the scale of a LEGO® brick.

## Royal Tutor Tip

A documentary video about David Macaulay’s book *Castle* is available on DVD.

### Construct

- Using the **Plan of a Castle** and the dimensions given (page 48), model how to calculate and draw to **scale** the **perimeter** (inner and outer sides) of the outer **curtain** (scale, 1 inch = 70 feet).
- Model how to use proportion to estimate the size of the towers.
- Have the students work in small groups to calculate and draw to **scale**:
  - the **perimeters** of the inner **curtain** (inner and outer sides)
  - the circumference of the towers
  - the perimeters of inner curtain rooms
- Additional calculations might include the **area** of outer and inner wards, towers, and community rooms. Similar **scale** drawings can be made for the height and thickness of the walls/towers.

### Contemplate

- Highlight the enormity of the structures by measuring and marking out the original dimensions outdoors.
- Pose the questions, “How did medieval craftsmen and workers accomplish this task without modern machines? What would it be like to dig a **moat** with a shovel?”

### Continue

- Explain that castle building was not only a weighty task, but also time-intensive! Tomorrow students will draw a time line outlining the castle’s construction.

### DAY 2

### Connect

- Ask students why **scale** is important. How is it used today?
- Explain that time lines are similar to scale; they are graphic representations of time and sequences of events.
- Explain that the class will develop a time line for the construction of Lord Kevin’s castle.

### Construct

- Use bulletin board or shelf paper to post a castle construction time line beginning in Spring 1283 and ending in Spring 1289. For each of the intervening years mark spring and fall dates. For example, mark: Spring 1284, Fall 1284, and so on.
- As a class, complete the first time line entry using pages 7–15 in *Castle* as a guide. Entries include: 1) description of construction milestones, 2) key vocabulary with definitions, and 3) drawings illustrating construction milestones. Whenever possible, drawings should be to **scale**; estimations may be used when exact dimensions are not given.
- Assign small groups sections of the book *Castle*. Note: The text is chronological and breaks easily into topics, such as the construction of **curtains** (walls), the gatehouse, and the **great hall**.

### Contemplate

- Explain that building a castle took many years and much manpower. Have students think about their community. Are there projects today that are similar in scope? What are they? Who builds them? What are they used for?

### Continue

- Review key structures, their names, and their roles in protecting the castle community.
- Ask: How do you “unbuild” a castle? Tell students this is tomorrow’s challenge.



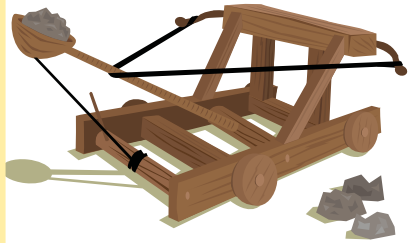
## Royal Tutor Tip

Have students draw and write information on separate pieces of paper and then attach them to the time line.

### DAYS 3 AND 4

### Continue

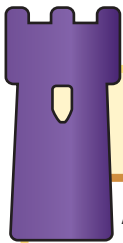
- Repeat the question from Day 2. How do you “unbuild” or destroy a castle?
- Read pages 65–74 from *Castle*. They describe an assault on the castle.
- Review the different ways that Prince Dffyd tried to **breach** the castle walls.
- Return to the section on catapults (pages 70–71). Look closely at their construction. Identify the different shapes used in their construction, such as the square base and triangular supports. Identify and explain how familiar tools, such as the lever and screws, were used. How did each work? How did each contribute to the effectiveness of the catapults?



### Royal Tutor Tip

Catapult building is a perfect opportunity to combine science and math through the study of simple machines. David Macaulay's book *The New Way Things Work* is a fun and informative resource.

Never shoot a catapult at a person! Never shoot hard objects! Miniature marshmallows make fun, safe projectiles.



### Chess: More Than Just a Game

Although the game of chess originated in China, it was refashioned to represent the tactics of medieval warfare. The importance of the chess pieces represents the hierarchical order of medieval society, from lowly pawn (foot soldier) to noble king and queen. The object of the game is to capture the opponent's soldiers and leaders, especially the queen!



#### Construct

- Have the students build catapults.
- Directions for catapults range from very simple to complex. Here is one resource: <http://www.midrealm.org/mkyouth/links/catapults.htm>.
- Fire the catapults!
- Measure distances to the target. As with horseshoes, hitting close to the target counts!
- If time permits, have students track multiple tries and average distances. Encourage problem solving. What is the perfect adjustment?

#### Contemplate

- Have students reflect on the different strategies used to improve their catapult's accuracy. What were the most and least effective, and why?

#### Continue

- Explain that the students will be visiting the exhibit LEGO® *Castle Adventure*, where they will have the opportunity to build their own castle and shoot an electronic catapult!



## CULMINATING EXPERIENCE: BUILDING A CASTLE

Students and their families use their skills and artistry to build the castle of their dreams! Visit the LEGO® *Castle Adventure* Web site (<http://MyCastleAdventure.com>) to find out when and where you can visit the exhibit.



*Leeds Castle, Kent, England – Inner Courtyard*

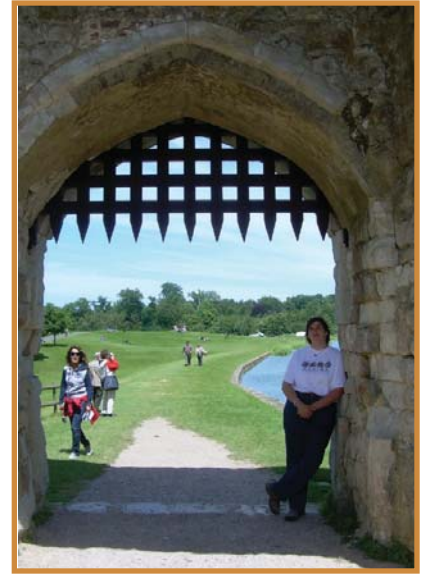
### PRE-CONSTRUCTION EXPERIENCE

#### Connect and Contemplate

- Review the different castles students have visited via story and research. Highlight the various parts of the castles.
- Compare and contrast the castles.
- Encourage the students to think about what they have learned about castles as they plan and build their castles.



*Exterior of Leeds Castle (1119 AD)*



*A sliding iron gate, called a portcullis, at Leeds Castle.*

### Royal Tutor Tip

Encourage older students to research castles from other parts of the world and other eras. Potential castles include:

- Alhambra (Spain, late Middle Ages)
- Biltmore (USA, 19th century)
- Casa Loma (Canada, 20th century)
- Chapultepec (Mexico, 18th century)
- Elmina (Ghana, 15th century)
- Falkenburg (17th century)
- Hearst (USA, 20th century)
- Himeji (Japan, 14th century)
- Hunyad (Hungary, 14th century)
- Iolani Palace (USA, 19th century)
- Krak des Chevaliers (Syria, Middle Ages)
- Pierrefonds (France, Middle Ages)
- Qiang (China, 2nd century BC)
- Sleeping Beauty (USA, 20th century)
- Summer and Winter Palaces (Russia, 18th century)
- Taj Mahal (India, 17th century)
- Tikal, Central Acropolis (Guatemala, 200–850 AD)
- White Tower (England, Middle Ages)

**CONSTRUCTION EXPERIENCE****CONSTRUCT**

- Visit the LEGO® *Castle Adventure* exhibit.
- Have students work together to build castles using LEGO bricks.
- Take photos of the builders and castles during and after construction.

**POST-CONSTRUCTION EXPERIENCE****Contemplate and Continue**

- Display the castle research and construction pictures in the school media center.
- Orally or in journals, have students reflect on the knowledge and skills they learned through their unit and exhibit experiences. What surprised them most about castles and their inhabitants? How have their ideas about castle life changed? How did castle builders combine science and artistry?
- Encourage students to continue to learn about other people, places, and eras. Who knows what and where their next adventure might be!

**EXTENDING EXPERIENCE**

- Collect LEGO bricks from students, families, and friends. Other types of building materials may supplement LEGO bricks.
- Invite families and community members to an after-school "Castle Raising."
- To prepare families for castle construction, have students share information and samples from their unit studies.
- Have students and families work together to build castles of various sizes and styles.
- Take photos of the builders and castles during and after construction.
- Add treats and games, and the event turns into a Medieval Fair!

**CULMINATING ASSESSMENT**

The culminating activity will be scored based on the students' ability to

- participate in the construction of castles
- work as team members
- identify and describe the skills and knowledge used during castle construction

**SCORING RUBRIC**

This rubric provides a framework for assessing a student's performance based on the criteria above.

**PARTIAL**

The student participates in the castle building but is not able to apply what was learned about real castles to the construction, or is unable to describe how elements of the castles reflect the skills and knowledge learned. For example, the construction may look more like a simple house, without any of the common elements of a castle. Or a student may not fully participate in the castle building, providing ideas but leaving the actual construction to others.

**ESSENTIAL**

The student participates in the construction of the castle and works cooperatively with other teammates, applying what was learned about real castles to the construction. However, the student may still be unable to describe how elements of the castle reflect the skills and knowledge learned. For example, the castle may contain a tower, but the student may not be able to describe why towers were a common castle element and what their function was.

**EXCEPTIONAL**

The student actively participates in the construction of the castle as a member of a team, providing and accepting suggestions related to its development. The student is able to apply skills and knowledge learned about real castles to the construction. The student also is able to describe how elements of the castle reflect the skills and knowledge learned. For example, the castle may contain a tower, and the student is able to describe why towers were a common castle element and what their function was, thus demonstrating a deep understanding of the topic.

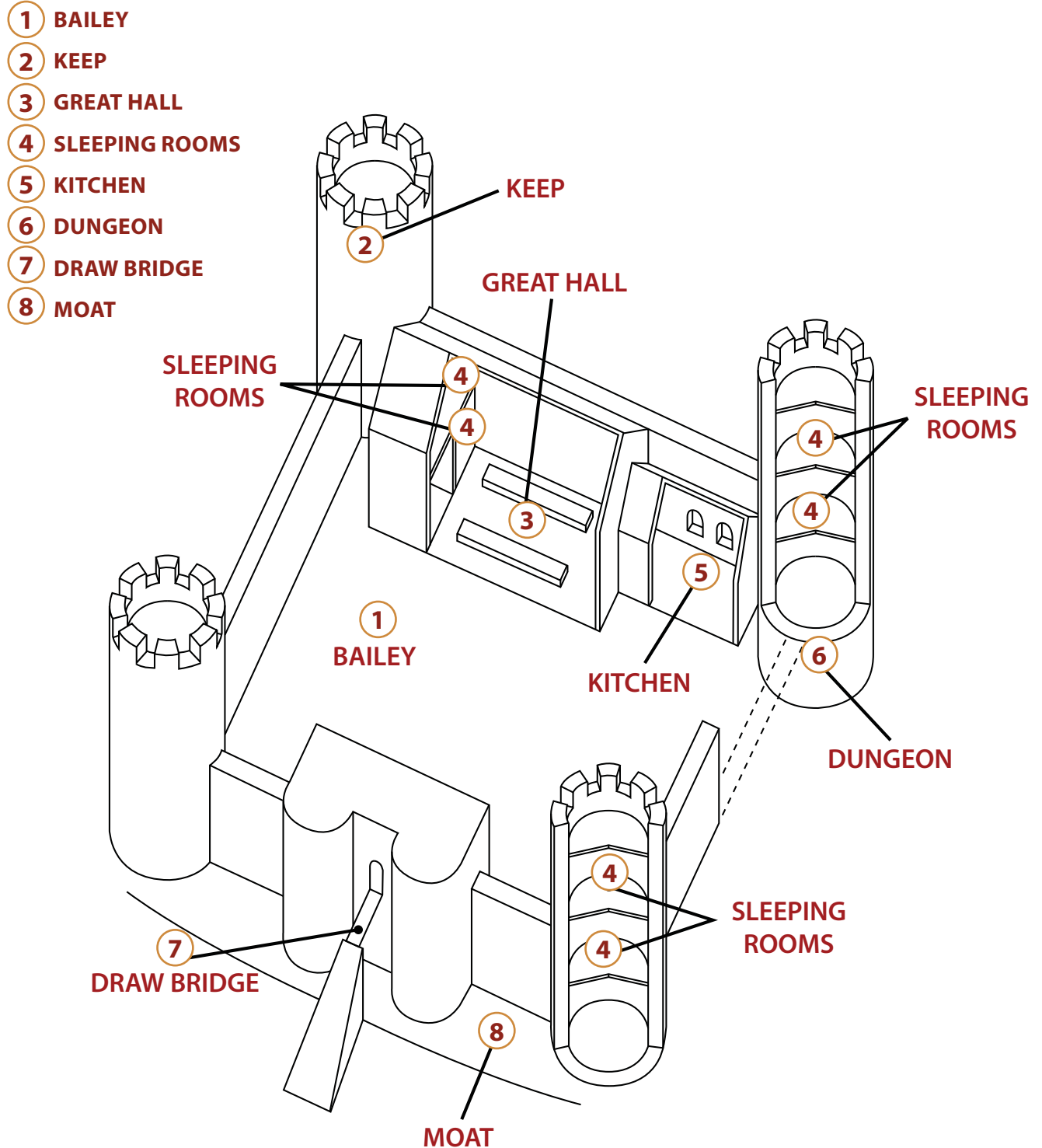
**Royal Tutor Tip**

While the rubric descriptors are the same, the performances of the students will vary depending on their developmental level. Apprentice Builders (K–2) should complete the final reflection as a class. Journeyman (3–4) and Master Builders (5–6) may complete reflections independently or in castle-building groups.



GRADES K-2 EXPERIENCE

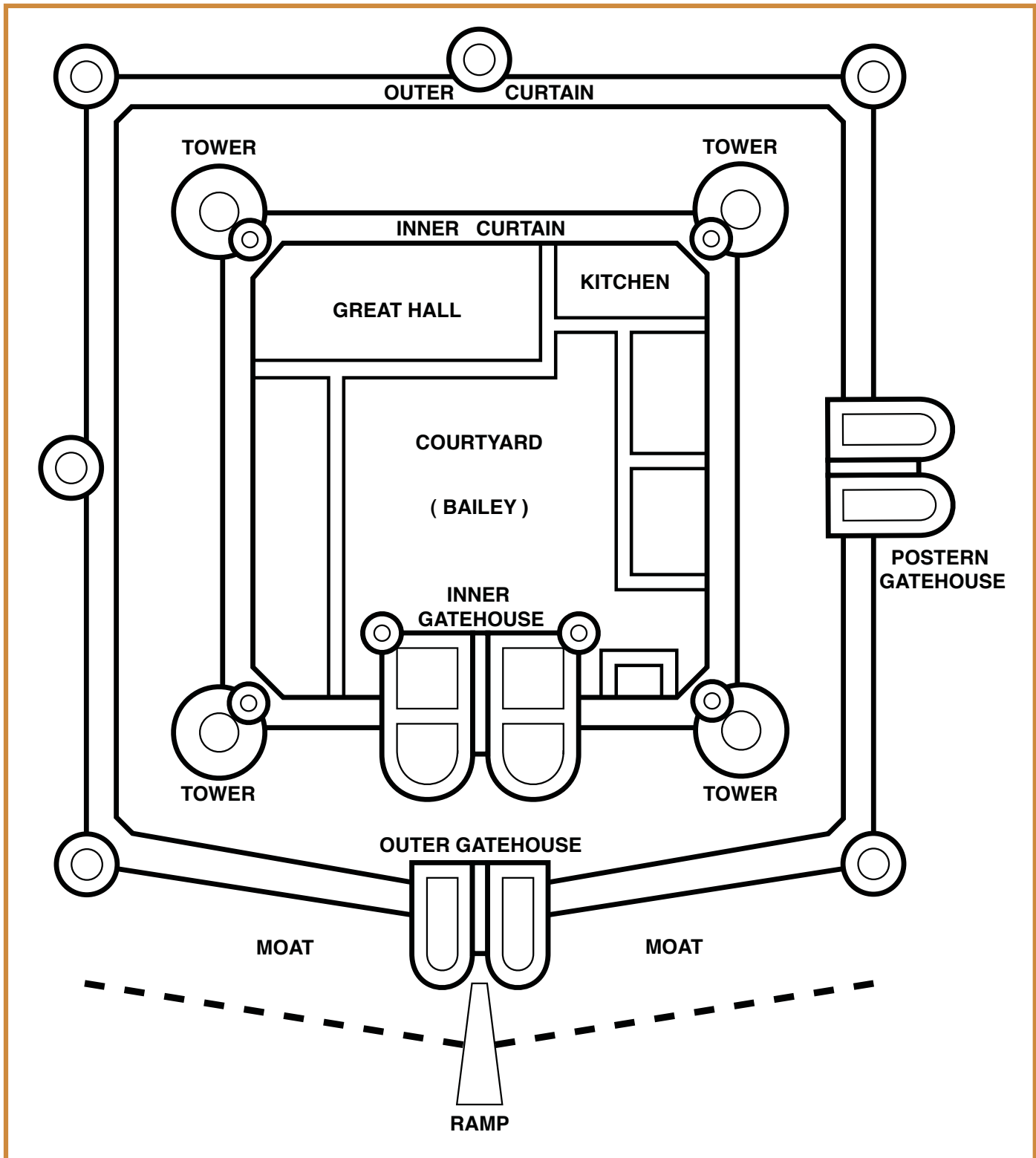
## The Parts of a Castle



## LESSON THREE

GRADES 5-6 EXPERIENCE

## Plan of a Castle



The dimensions of the actual castle will measure 385 feet along each of the four outside walls of the outer curtain (385 feet x 385 feet). What is the scale of this drawing?



## RESOURCES

Please review all resources prior to use to make certain that they are suitable for your students. An asterisk (\*) indicates resources cited in lessons.

### BOOKS

#### Nonfiction

##### Picture Books

- \*Aiki. *A Medieval Feast*. New York: HarperCollins, 1986.
- Anno, Mitsumasa. *Anno's Medieval World*. New York: Philomel Books, 1980.
- Gibbons, Gail. *Knights In Shining Armor*. Boston: Little, Brown, 1995.
- Sís, Peter. *Starry Messenger*. New York: Farrar Straus Giroux, 1996.
- Steele, Philip. *Knights*. New York: Kingfisher, 1998.

##### Chapter Books

- Bailey, Linda and Slavin, Bill. *Adventures in the Middle Ages*. Toronto: Kids Can Press, 2000.
- Brooks, Polly Schoyer. *Queen Eleanor: Independent Spirit of the Medieval World*. Boston: Houghton Mifflin, 1999.
- Crossley-Holland, Kevin. *The World of King Arthur and His Court: People, Places, Legend, and Lore*. New York: Dutton Children's Books, 1999.
- \*Hart, Avery and Mantell, Paul. *Knights and Castles: 50 Hands-On Activities to Experience the Middle Ages*. Nashville, TN: Ideals Books, 1998.
- \*Macaulay, David. *Castle*. Boston: Houghton Mifflin, 1977.
- \*Macaulay, David, with Neil Ardley. *The New Way Things Work*. Boston: Houghton Mifflin, 1998.
- Maynard, Christopher. *Days of the Knights: A Tale of Castles and Battles*. DK Publishing, 1998. (easy to read)
- Osborne, Will, and Mary Pope Osborne. *Knights and Castles*. New York: Random House, 2000. (easy to read)
- Rau, Dana Meachen. *Castle*. New York: Marshall Cavendish Benchmark, 2007. (very easy to read)

- Unstead, R. J. *See Inside: A Castle*. New York: Warwick Press, 1986.
- Weintraub, Aileen. *Knights: Warriors of the Middle Ages*. New York: Children's Press, 2005. (easy to read)

#### Fiction

##### Picture Books

- Cooney, Barbara. *Chanticleer and the Fox*. New York: Crowell, 1958.
- \*Craft, Mahlon F. *Sleeping Beauty*. New York: Scholastic, 2002.
- \*DePaola, Tomie. *The Knight and the Dragon*. New York: Putnam, 1980.
- \*Hodges, Margaret. *Saint George and the Dragon: A Golden Legend*. Boston: Little, Brown, 1984.
- Nikola-Lisa, W. *Magic in the Margins: A Medieval Tale of Bookmaking*. Boston: Houghton Mifflin, 2007.
- Robertson, Bruce. *Marguerite Makes a Book*. Los Angeles: Getty Museum, 1999.

##### Chapter Books

- Alexander, Lloyd. *The Book of Three*. New York: Henry Holt, 1999.
- Avi. *Crispin: The Cross of Lead*. New York: Simon & Schuster, 2003.
- Avi. *Midnight Magic*. New York: Scholastic, 1999.
- Bulla, Clyde Robert. *The Sword in the Tree*. New York: HarperTrophy, 2000.
- \*Cushman, Karen. *Catherine, Called Birdy*. New York: HarperCollins Children's, 1994.
- Cushman, Karen. *Matilda Bone*. New York: Random House/Yearling, 2002.
- Cushman, Karen. *The Midwife's Apprentice*. New York: HarperCollins Children's, 1995.
- De Angeli, Marguerite. *Door in the Wall*. Doubleday, 1989.
- Doherty, Gillian. *Stories of Dragons*. London: Usborne Publishing, 2007.
- Doherty, Gillian. *Usborne Book of Myths and Legends*. London: Usborne Publishing, 2006.
- Ehrlich, Any. *The Random House Book of*

*Fairy Tales*. New York: Random House, 1985.

- Grant, K. M. *Blood Red Horse*. New York: Walker Books, 2004.
- Gray, Elizabeth Janet. *Adam of the Road*. New York: Puffin Books, 2006.
- Hunter, Molly. *The King's Swift Rider*. HarperCollins Teen, 1998.
- Konigsburg, E. L. *A Proud Taste for Scarlet and Miniver*. New York: Bantam Doubleday Dell, 1997.
- Levine, Gail Carson. *Ella Enchanted*. New York: Scholastic, 1997.
- McKinley, Robin. *The Hero and the Crown*. New York: Ace Books, 2007.
- Milbourne, Anna. *Stories of Knights & Castles*. London: Usborne Publishing, 2006.
- O'Connor, Jane. *Sir Small and the Dragonfly*. New York: Random House, 2003. (very easy to read)
- Osborne, Mary Pope. *The Knight at Dawn*. New York: Random House, 1993. (easy to read)
- Platt, Richard. *Castle Diary: The Journal of Tobias Burgess, Page*. Cambridge, MA: Candlewick Press, 1999.
- Scieszka, Jon. *Knights of the Kitchen Table*. Puffin Books, 2004. (easy to read)
- \*Schlitz, Laura Amy. *Good Masters! Sweet Ladies! Voices From a Medieval Village*. Cambridge, MA: Candlewick Press, 2007.
- Temple, Francis. *The Ramsay Scallop*. New York: HarperTrophy, 1994.
- Yolen, Jane and Harris, Robert J. *Girl in a Cage*. New York: Philomel Books, 2002.

### MAGAZINES

- \*"Middle Ages," *Kids Discover*. Boulder, CO (<http://www.kidsdiscover.com>).
- \*"Knights & Castles," *Kids Discover*. Boulder, CO (<http://www.kidsdiscover.com>).



## RESOURCES

### WEB SITES

#### Castles

<http://www.castlewales.com/caernarf.html> (Caernarfon Castle)

<http://www.castlewales.com/conwy.html> (Conwy Castle)

<http://www.castlewales.com/harlech.html> (Harlech Castle)

<http://www.mnsu.edu/emuseum/history/middleages/>

<http://www.learner.org/exhibits/middleages/>

[http://www.metmuseum.org/Works\\_Of\\_Art/department.asp?dep=4](http://www.metmuseum.org/Works_Of_Art/department.asp?dep=4) (collection highlights, medieval art)

#### Information and Games

[http://www.geocities.com/traditions\\_uk/play.html](http://www.geocities.com/traditions_uk/play.html)

[http://www.castles.org/Kids\\_Section/Castle\\_Story/index.htm](http://www.castles.org/Kids_Section/Castle_Story/index.htm)

<http://www.castles.org/kids/>

[http://www.nationalgeographic.com/castles/enter\\_castle.html](http://www.nationalgeographic.com/castles/enter_castle.html)

#### Building Castles and Catapults

<http://www.yourchildlearns.com/castle.htm>

<http://www.midrealm.org/mkyouth/links/catapults.htm>

### MEDIEVAL EUROPE



## GLOSSARY

**adventure:** A new and exciting experience or activity.

**area:** The surface included within a set of lines; specifically, the number of unit squares.

**bailey:** A yard within the castle curtain.

**brave or good deed:** An action that helps another person and/or the community, often done without worry about one's own safety or needs.

**castle:** A large building or group of buildings surrounded by thick walls and tall towers. During medieval times it was both fortress and home for the lord and surrounding community.

**champion:** A person who protects or defends another, usually weaker person; a person who fights for a cause.

**chivalry:** Gallant or distinguished behavior, such as heroism or good deeds.

**community:** A group of people living and/or working together; the castle community consisted of nobles and peasants.

**curtain (inner and outer):** A thick, high wall that surrounds a castle.

**dragon:** A mythical (make-believe) creature with a gigantic reptilian body, sharp claws, huge wings, and the ability to breathe fire.

**dungeon:** A jail or prison usually located in the basement of a castle.

**fact:** Verifiable information about a person, event, or circumstances that exist or have occurred.

**fantasy:** Fiction based largely on imagined people and/or circumstances; make-believe.

**fiction:** A story not necessarily based on fact.

**figurative language:** Descriptive language that goes beyond literal meaning to create a special mood or feeling (such as similes and metaphors).

**fortress:** A structure built for defense and security, such as medieval castles.

## geometric shapes

**circle:** A line where every point is equidistant from the center point.

**rectangle:** A figure with four sides and four right angles.

**square:** A figure with four equal sides and four right angles.

**triangle:** A figure with three sides and three angles.

## geometric solids

**cone:** A solid with a circular (round) base and sides that taper up to a point.

**cube:** A solid with six square sides of equal area.

**cylinder:** A solid with a circular (round) surface and two parallel planes (bases).

**pyramid:** A solid having triangular sides that taper up to a point.

**rectangle:** A solid with six rectangular sides

**hero:** A person who is very brave; often the most important person in a story.

**historical fiction:** A story that is set in the past; parts of the story may be based on real events and/or people, but many details are made up.

**honor:** A personal quality related to virtue or to behaving well, such as being truthful and keeping promises.

**jester:** A clown-like person who entertained the nobility; also known as a joker or trickster.

**keep:** The main tower and most secure place in a castle; also the living quarters for the lord and his family.

**knight:** A medieval soldier who fought on behalf of a lord and was noted for doing brave or good deeds, including protecting the poor and/or weak.

**medieval:** From the period in European history dating from about 500 to 1500 AD, named because this period is the middle era between the fall of the Roman Empire and the beginning of the Renaissance.

**Middle Ages:** The medieval era, from about 500 to 1500 AD.

**moat:** A large, defensive ditch filled with water, separating the castle from potential invaders.

**noble:** A person of high ranking, usually born into the class, such as lords and ladies.

**nonfiction:** Prose writing based on factual or provable information. The events and/or people in nonfiction are not made up or changed.

**peasant:** A person who worked the land. Medieval peasants rarely owned their own land but worked a lord's fields in return for protection.

**perimeter:** The distance around the outer edge of a shape.

**pledge:** A promise.

**plot:** The sequence of events or action in a story, play, or movie.

**research:** A systematic investigation to find the facts or truth.

**scale:** A ratio of corresponding lengths, such as dimensions on a building blueprint that correspond to the dimensions of a completed building.

**suspense:** A feeling of excited or anxious anticipation or curiosity. Writers add suspense to make stories more interesting and keep their audience's attention.

**tapestry:** Woven fabrics featuring pictorial scenes or complex designs and hung on castle walls for decoration and warmth.

**troubadour:** A traveling entertainer in the medieval era who composed and performed songs mainly about love and chivalry.

**visualize:** To form an image in the mind; to imagine.

**voice:** The distinctive individual quality of a person's speech, orally or in writing.

## RESOURCES

### NATIONAL ACADEMIC STANDARDS

#### NATIONAL COUNCIL FOR THE SOCIAL STUDIES THEMES

- *Culture* — The social studies curriculum should include experiences that provide for the study of culture and cultural diversity. Key questions related to this theme include: How are groups of people alike and different? What is culture? How does culture unify a group of people? How do the beliefs, values, and behaviors of a group of people help the group meet its needs and solve problems?
- *Time, Continuity, and Change* — Social studies should include experiences that provide for the study of ways human beings view themselves over time. Key questions for student investigations include: What happened in the past? How do people perceive the past? How has the past influenced the present?
- *People, Places, and Environment* — Social studies curricula should include experiences that provide for the study of people, places, and environment. See the NCSS Web Site for recent updates to the standards, <http://www.ncss.org>

#### NATIONAL COUNCIL FOR TEACHERS OF ENGLISH/INTERNATIONAL READING ASSOCIATION STANDARDS

1. Students read a wide range of print and non-print texts to build an understanding of texts, of themselves, and of the cultures of the United States and the world; to acquire new information; to respond to the needs and demands of society and the workplace; and for personal fulfillment. Among these texts are fiction and nonfiction, classic and contemporary works.
2. Students read a wide range of literature from many periods in many genres to build an understanding of the many dimensions (e.g., philosophical, ethical, aesthetic) of human experience.
7. Students conduct research on issues and interests by generating ideas and questions, and by posing problems. They gather, evaluate, and synthesize data from a variety of sources (e.g., print and non-print texts, artifacts, people) to communicate their discoveries in ways that suit their purpose and audience.
8. Students use a variety of technological and information resources (e.g., libraries, databases, computer networks, video) to gather and synthesize information and to create and communicate knowledge.

#### NATIONAL COUNCIL OF TEACHERS OF MATHEMATICS STANDARDS

##### Algebra PreK–2

Understand patterns, relations, and functions

##### Geometry PreK–2, Grades 3–5

Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships

##### Geometry PreK–2, Grades 3–5, Grades 6–8

Use visualization, spatial reasoning, and geometric modeling to solve problems

##### Measurement Grades 3–5, Grades 6–8

Understand measurable attributes of objects and the units, systems, and processes of measurement

##### Measurement Grades 3–5, Grades 6–8

Apply appropriate techniques, tools, and formulas to determine measurements

##### Number and Operations

##### Grades 3–5, Grade 6–8

Compute fluently and make reasonable estimates

## RESOURCES

### INDIANA'S ACADEMIC STANDARDS

#### Social Studies

- K.1.1 Compare children and families of today with those in the past.
- K.1.2 Identify celebrations and holidays as a way of remembering and honoring people, events and America's ethnic heritage.
- K.1.3 Listen to and retell stories about people in the past who showed honesty, courage, and responsibility.
- K.2.1 Give examples of people who are community helpers and leaders and describe how they help us.
- K.3.6 Identify and compare similarities and differences in families, classmates, neighbors and neighborhoods, and ethnic and cultural groups.
- K.4.2 Identify and describe different kinds of jobs that people do and the tools or equipment used in these jobs.
- K.4.4 Give examples of work activities that people do at home.
- 1.1.1 Compare the way individuals in the community lived in the past with the way they live in the present.
- 1.1.2 Compare past and present similarities and differences in community life by using biographies, oral histories, folklore and video images.
- 1.1.5 Identify people and events observed in national celebrations and holidays.
- 1.1.9 Use the library and other information resources to find information that answers questions about history.
- 1.1.10 Distinguish between historical fact and fiction in American folktales and legends that are a part of American culture.
- 1.2.1 Identify rights that people have and identify the responsibilities that accompany these rights.
- 1.2.3 Explain why rules and laws exist and describe the benefits of having rules and laws.
- 1.4.2 Identify services that people do for each other.

- 2.1.4 Identify and describe community celebrations, symbols and traditions and explain why they are important.
- 2.1.7 Read about and summarize historical community events using libraries and a variety of information resources.
- 2.2.2 Understand and explain why it is important for a community to have responsible government.
- 2.2.5 Identify people who are good citizens and describe the character traits that make them admirable.
- 6.1.4 Describe and explain the development and organization of political, cultural, social and economic systems in Europe and the Americas.
- 6.1.7 Explain the effects of the Black Death, or bubonic plague, along with economic, environmental and social factors that led to the decline of medieval society.
- 6.1.8 Compare the diverse perspectives, ideas, interests and people that brought about the Renaissance in Europe.
- 6.1.9 Analyze the interconnections of people, places and events in the economic, scientific and cultural exchanges of the European Renaissance that led to the Scientific Revolution, voyages of discovery and imperial conquest.
- 6.1.19 Define and use the terms *decade*, *century*, and *millennium*, and compare alternative ways that historical periods and eras are designated by identifying the organizing principles upon which each is based.
- 6.1.20 Recognize historical perspectives in fiction and nonfiction by identifying the historical context in which events unfolded and by avoiding evaluation of the past solely in terms of present-day norms.
- 6.1.21 Analyze cause-and-effect relationships, keeping in mind multiple causations, including the importance of individuals, ideas,

human interests, beliefs and chance in history.

- 6.1.22 Differentiate between fact and interpretation in historical accounts and explain the meaning of historical passages by identifying who was involved, what happened, where it happened, and relating them to outcomes that followed and gaps in the historical record.
- 6.1.23 Form research questions and use a variety of information resources to obtain, evaluate and present data on people, cultures and developments in Europe and the Americas.
- 6.1.24 Identify issues related to an historical event in Europe or the Americas and give basic arguments for and against that issue utilizing the perspectives, interests and values of those involved.
- 6.2.1 Identify and compare major forms of historical and contemporary governments in Europe and the Americas.
- 6.2.5 Describe how major forms of government in Europe and the Americas protect or protected citizens and their civil and human rights.

#### English Language Arts

- K.2.2 Use pictures and context to aid comprehension and to draw conclusions or make predictions about story content.
- K.2.3 Generate and respond to questions (*who*, *what*, *where*).
- K.3.1 Distinguish fantasy from reality.
- K.3.3 Identify characters, settings, and important events in a story.
- K.4.1 Discuss ideas to include in a story.
- K.4.3 Write using pictures, letters, and words.
- K.4.6 Ask *how* and *why* questions about a topic of interest.
- K.4.7 Identify pictures and charts as sources of information and begin gathering information from a variety of sources (books, technology).

## RESOURCES

- |       |   |        |   |        |  |
|-------|---|--------|---|--------|--|
| K.4.8 | Organize and classify information into categories of how and why or by color or size.   | 2.2.4  | Ask and respond to questions ( <i>when, who, where, why, what if, how</i> ) to aid comprehension about important elements of informational texts.   | 3.3.3  | Determine what characters are like by what they say or do and by how the author or illustrator portrays them.  |
| K.5.1 | Draw pictures and write words for a specific reason.  | 2.2.9  | Use context (the meaning of the surrounding text) to understand word and sentence meanings.   | 3.4.1  | Find ideas for writing stories and descriptions in conversations with others; in books, magazines, or school textbooks; or on the Internet.  |
| K.7.2 | Share information and ideas, speaking in complete, coherent sentences.  | 2.3.6  | Recognize the difference between fantasy and reality.   | 3.4.2  | Discuss ideas for writing, use diagrams and charts to develop ideas, and make a list or notebook of ideas.   |
| K.7.5 | Tell an experience or creative story in a logical sequence (chronological order, first, second, last).  | 2.3.7  | Identify the meaning or lesson of a story.  | 3.4.4  | Use various reference materials (such as a dictionary, thesaurus, atlas, encyclopedia, and online resources).  |
| 1.2.2 | Identify text that uses sequence or other logical order.  | 2.4.2  | Organize related ideas together to maintain a consistent focus.   | 3.4.6  | Review, evaluate and revise writing for meaning and clarity.   |
| 1.2.3 | Respond to <i>who, what, when, where, why, and how</i> questions and recognize the main idea of what is read.   | 2.4.3  | Find ideas for writing stories and descriptions in pictures or books.   | 3.5.1  | Write narratives that provide a context within which an action takes place and include details to develop the plot.  |
| 1.2.5 | Use context (the meaning of the surrounding text) to understand word and sentence meanings.   | 2.5.1  | Write brief narratives based on experiences that move through a logical sequence of events (chronological order, order of importance) and describe the setting characters, objects, and events in detail. | 3.5.5  | Write for different purposes and to a specific audience or person.   |
| 1.2.7 | Relate prior knowledge to what is read.   | 2.7.1  | Determine the purpose or purposes of listening (such as to obtain information, to solve problems, or to enjoy humor).   | 3.5.8  | Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that uses a variety of sources (books, technology, pictures, charts, tables of contents, diagrams) and documents sources (titles and authors); and organizes information by categorizing it into more than one category (such as living and nonliving, hot and cold) or includes information gained through observation. |
| 1.3.1 | Identify and describe the plot, setting, and character(s) in a story. Retell a story's beginning, middle, and ending.                                   | 2.7.2  | Ask for clarification and explanation of stories and ideas.   | 3.7.3  | Answer questions completely and appropriately.   |
| 1.3.4 | Distinguish fantasy from reality.   | 2.7.9  | Report on a topic with supportive facts and details.  | 3.7.5  | Organize ideas chronologically (in the order that they happened) or around major points of information.  |
| 1.4.1 | Discuss ideas and select a focus for group stories or other writing.  | 2.7.12 | Use descriptive words when speaking about people, places, things, and events.   | 3.7.12 | Make brief narrative presentations that provide a context for an event that is the subject of a presentation; provide insight into why the selected event should be of interest to the audience; and include well-chosen details to develop characters, setting, and   |
| 1.4.2 | Use various organizational strategies to plan writing.  | 3.2.1  | Use titles, tables of contents, chapter headings, a glossary, or an index to locate information in text.  |        |  |
| 1.4.4 | Begin asking questions to guide topic selection and ask <i>how</i> and <i>why</i> questions about a topic of interest.                                  | 3.2.2  | Ask questions and support answers by connecting prior knowledge with literal information from the text.   |        |  |
| 1.4.5 | Identify a variety of sources of information (books, online sources, pictures, charts, tables of contents, diagrams) and document the sources (titles). | 3.2.6  | Locate appropriate and significant information from the text, including problems and solutions.   |        |  |
| 1.4.6 | Organize and classify information by constructing categories on the basis of observation.   | 3.2.8  | Distinguish between cause and effect and between fact and opinion in informational text.  |        |  |
| 1.5.1 | Write brief narratives (stories) describing an experience.  | 3.3.1  | Recognize different common genres (types) of literature, such as poetry, drama, fiction and non-fiction.  |        |  |
| 1.7.1 | Listen attentively.   | 3.3.2  | Comprehend basic plots of classic fairy tales, myths, folk tales, legends and fables from around the world.   |        |  |
| 1.7.2 | Ask questions for clarification and understanding.  |        |   |        |  |
| 1.7.5 | Use descriptive words when speaking about people, places, things, and events.   |        |   |        |  |
| 2.2.3 | Use knowledge of the author's purpose(s) to comprehend informational text.  |        |   |        |  |



## RESOURCES

- |        |  |        |  |       |  |
|--------|--|--------|--|-------|--|
|        | plot that has a beginning, middle, and end.  |        | systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that includes   |       | selection and recognize themes, whether they are implied or stated directly.   |
| 4.2.1  | Use the organization of informational text to strengthen comprehension.  |        | information from a variety of sources (books, technology, multimedia)  | 5.3.5 | Describe the function and effect of common literary devices, such as imagery, metaphor, and symbolism.   |
| 4.2.2  | Use appropriate strategies when reading for different purposes.  |        | and documents sources (titles and authors); demonstrates that  | 5.3.6 | Evaluate the meaning of patterns and symbols that are found in myth and tradition by using literature from different eras and cultures.  |
| 4.2.5  | Compare and contrast information on the same topic after reading several passages or articles.   |        | information that has been gathered has been summarized; and organizes  | 5.3.7 | Evaluate the author's use of various techniques to influence readers' perspectives.  |
| 4.2.6  | Distinguish between cause and effect and between fact and opinion in informational text.   |        | information by categorizing it into multiple categories (such as solid, liquid, and gas or reduce, reuse, and recycle) or includes information   | 5.4.1 | Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.   |
| 4.3.1  | Describe the differences of various imaginative forms of literature, including fantasies, fables, myths, legends and other tales.  | 4.5.5  | gained through observation.  | 5.4.5 | Use note-taking skills when completing research for writing.   |
| 4.3.2  | Identify the main events of the plot, including their causes and the effects of each event on future actions, and the major theme from the story action.   | 4.7.1  | Use varied word choices to make writing interesting.   | 5.4.7 | Use a thesaurus to identify alternative word choices and meanings.   |
| 4.4.1  | Discuss ideas for writing. Find ideas for writing in conversations with others and in books, magazines, newspapers, school textbooks, or on the Internet. Keep a list or notebook of ideas.                        | 4.7.11 | Ask thoughtful questions and respond orally to relevant questions with appropriate elaboration.  | 5.4.8 | Review, evaluate, and revise writing for meaning and clarity.  |
| 4.4.2  | Select a focus, an organizational structure, and a point of view based upon purpose, audience, length, and format requirements for a piece of writing.   |        | Make narrative presentations that relate ideas, observations, or memories about an event or experience; provide a context that allows the listener to imagine the circumstances of the event or experience; and provide insight into why the selected event or experience should be of interest to the audience. | 5.5.1 | Write narratives that establish a plot, point of view, setting, and conflict; and show, rather than tell, the events of the story.   |
| 4.4.5  | Quote or paraphrase information sources, citing them appropriately.  | 4.7.12 | Make informational presentations that focus on one main topic; include facts and details that help listeners focus; and incorporate more than one source of information (including speakers, books, newspapers, television broadcasts, radio reports, or Web sites).   | 5.5.3 | Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings and that uses information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors); demonstrates that |
| 4.4.6  | Locate information in reference texts by using organizational features, such as prefaces and appendixes.   |        | information that has been gathered has been summarized; and organizes  |       | information by categorizing and sequencing.  |
| 4.4.7  | Use multiple reference materials and online information (the Internet) as aids to writing.   | 5.2.3  | Recognize main ideas presented in texts, identifying and assessing evidence that supports those ideas.   | 5.5.5 | Use varied word choices to make writing interesting.   |
| 4.4.10 | Review, evaluate, and revise writing for meaning a clarity.  | 5.2.4  | Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.  | 5.5.6 | Write for different purposes (information, persuasion, description) and to a specific audience or person, adjusting tone and style as appropriate.   |
| 4.4.12 | Revise writing by combining and moving sentences in paragraphs to improve the focus and progression of ideas.  | 5.2.5  | Distinguish among facts, supported inferences, evidence, and opinions in text.   | 5.7.4 | Select a focus, organizational structure, and point of view for an oral presentation.  |
| 4.5.1  | Write narratives that include ideas, observations, or memories of an event or experience; provide a context to allow the reader to imagine the world of the event or experience; and use concrete sensory details. | 5.3.1  | Identify and analyze the characteristics of poetry, drama, fiction, and nonfiction and explain the appropriateness of the literary forms chosen by an author for a specific purpose.   | 5.7.6 | Use volume, phrasing, timing, and gestures appropriately to enhance meaning.   |
| 4.5.3  | Write or deliver a research report that has been developed using a   | 5.3.4  | Understand that theme refers to the central idea or meaning of a   |       |  |

## RESOURCES

- 5.7.9 Deliver narrative (story) presentations that establish a situation, plot, point of view, and setting with descriptive words and phrases; and show, rather than tell, the listener what happens.
- 5.7.10 Deliver informative presentations about an important idea, issue, or event by framing questions to direct the investigation; establishing a controlling idea or topic; and developing the topic with simple facts, details, examples, and explanations.
- 5.7.15 Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.
- 6.2.3 Connect and clarify main ideas by identifying their relationships to multiple sources and related topics.
- 6.2.4 Clarify an understanding of texts by creating outlines, notes, diagrams, summaries, or reports.
- 6.3.1 Identify different types (genres) of fiction and describe the major characteristics of each form.
- 6.3.4 Define how tone or meaning are conveyed in poetry through word choice, figurative language, sentence structure, line length, punctuation, rhythm, alliteration (repetition of sounds, such as *wild and woolly* or *threatening throngs*), and rhyme.
- 6.3.6 Identify and analyze features of themes conveyed through characters, actions, and images.
- 6.3.7 Explain the effects of common literary devices, such as symbolism, imagery, or metaphor, in a variety of fictional and nonfictional texts.
- 6.3.8 Critique the believability of characters and the degree to which a plot is believable or realistic.
- 6.4.1 Discuss ideas for writing, keep a list or notebook of ideas, and use graphic organizers to plan writing.
- 6.4.2 Choose the form of writing that best suits the intended purpose.
- 6.4.5 Use note-taking skills when completing research for writing.
- 6.4.8 Review, evaluate, and revise writing for meaning and clarity.
- 6.5.1 Write narratives that establish and develop a plot and setting and present a point of view that is appropriate to the stories; include sensory details and clear language to develop plot and character; and use a range of narrative devices, such as dialog or suspense.
- 6.5.3 Write or deliver a research report that has been developed using a systematic research process (defines the topic, gathers information, determines credibility, reports findings) and that uses information from a variety of sources (books, technology, multimedia) and documents sources independently by using a consistent format for citations; demonstrates that information that has been gathered has been summarized; demonstrates that sources have been evaluated for accuracy, bias, and credibility; and organizes information by categorizing and sequencing, and demonstrates the distinction between one's own ideas from the ideas of others, and includes a bibliography (Works Cited).
- 6.5.6 Use varied word choices to make writing interesting.
- 6.5.7 Write for different purposes and to a specific audience or person, adjusting tone and style as necessary.
- 6.7.4 Select a focus, an organizational structure, and a point of view, matching the purpose, message, and vocal modulation (changes in tone) to the audience.
- 6.7.7 Use effective timing, volume, tone, and alignment of hand and body gestures to sustain audience interest and attention.
- 6.7.8 Analyze the use of rhetorical devices, including rhythm and timing of speech, repetitive patterns, and the use of onomatopoeia (naming something by using a sound associated with it, such as *hiss* or *buzz*), for intent and effect.
- 6.7.10 Deliver narrative presentations that establish a context, plot, and point of view; include sensory details and specific language to develop the plot and character; and use a range of narrative (story) devices, including dialogue, tension, or suspense.
- 6.7.17 Make descriptive presentations that use concrete sensory details to set forth and support unified impressions of people, places, things, or experiences.
- Math**
- K.3.2 Identify, copy, and make simple patterns with numbers and shapes.
- K.4.1 Identify and describe common geometric objects: circle, triangle, square, rectangle, and cube.
- K.4.2 Compare and sort common objects by position, shape, size, roundness, and number of vertices.
- K.6.1 Choose the approach, materials, and strategies to use in solving problems.
- 1.4.1 Identify, describe, compare, sort, and draw triangles, rectangles, squares, and circles.
- 1.4.2 Identify triangles, rectangles, squares, and circles as the faces of three-dimensional objects.
- 1.4.4 Identify objects as two-dimensional or three-dimensional.
- 1.4.7 Identify geometric shapes and structures in the environment and specify their location.
- 2.4.1 Construct squares, rectangles, triangles, cubes, and rectangular prisms with appropriate materials.
- 2.4.2 Describe, classify, and sort plane and solid geometric shapes (triangle, square, rectangle, cube, rectangular prism) according to the number and shape of faces and the number of sides, edges and/or vertices.
- 2.4.3 Investigate and predict the result of putting together and taking apart two-dimensional and three-dimensional shapes.
- 2.4.5 Recognize geometric shapes and structures in the environment and specify their locations.
- 3.4.3 Identify, describe, and classify: cube, sphere, prism, pyramid, cone, and cylinder.
- 3.4.4 Identify common solid objects that are the parts needed to make a more complex solid object.
- 3.4.10 Recognize geometric shapes and their properties in the environment and specify their locations.
- 3.5.1 Measure line segments to the nearest half-inch.

## RESOURCES

- 3.6.4 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
- 4.5.1 Measure length to the nearest quarter-inch, eighth-inch, and millimeter.
- 4.5.3 Know and use formulas for finding the perimeters of rectangles and squares.
- 4.5.5 Estimate and calculate the area of rectangular shapes using appropriate units, such as square centimeter ( $\text{cm}^2$ ), square meter ( $\text{m}^2$ ), square inch ( $\text{in}^2$ ), or square yard ( $\text{yd}^2$ ).
- 4.5.7 Find areas of shapes by dividing them into basic shapes such as rectangles.
- 4.7.5 Express solutions clearly and logically by using the appropriate mathematical terms and notation. Support solutions with evidence in both verbal and symbolic work.
- 5.2.2 Add and subtract fractions (including mixed numbers) with different denominators.
- 5.2.6 Use estimation to decide whether answers are reasonable in addition, subtraction, multiplication, and division problems.
- 5.4.1 Measure, identify, and draw angles, perpendicular and parallel lines, rectangles, triangles, and circles by using appropriate tools (e.g., ruler, compass, protractor, appropriate technology, media tools).
- 5.5.1 Understand and apply the formulas for the area of a triangle, parallelogram, and trapezoid.
- 5.5.2 Solve problems involving perimeters and areas of rectangles, triangles, parallelograms, and trapezoids, using appropriate units.
- 5.5.3 Use formulas for the areas of rectangles and triangles to find the area of complex shapes by dividing them into basic shapes.
- 5.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.
- 5.7.2 Decide when and how to break a problem into simpler parts.
- 5.7.7 Make precise calculations and check the validity of the results in the context of the problem.
- 5.7.8 Decide whether a solution is reasonable in the context of the original situation.
- 6.2.6 Interpret and use ratios to show the relative sizes of two quantities. Use the notations:  $a/b$ ,  $a$  to  $b$ ,  $a:b$ .
- 6.2.7 Understand proportions and use them to solve problems.
- 6.5.1 Select and apply appropriate standard units and tools to measure length, area, volume, weight, time, temperature, and the size of angles.
- 6.5.2 Understand and use larger units for measuring length by comparing miles to yards and kilometers to meters.
- 6.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
- 6.7.3 Decide when and how to break a problem into simpler parts.
- 6.7.4 Apply strategies and results from simpler problems to solve more complex problems.
- 6.7.9 Make precise calculations and check the validity of the results in the context of the problem.
- 6.7.10 Decide whether a solution is reasonable in the context of the original situation.