# “Baseball in Education Day” Curriculum

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Introduction

Thank you for participating in the Sixth Annual Baseball in Education at Victory Field! The Indianapolis Indians created Baseball in Education to give teachers the opportunity to incorporate baseball into their curriculum in a way that is fun for them and their students. Through our Baseball in Education curriculum, teachers can introduce new standards and practice previously learned skills in an innovative way that will capture the attention of all students.

The Indianapolis Indians have developed a curriculum based on Indiana’s Academic Standards. The ideas and lesson plans included within were designed to serve as a guide for educators to help make learning fun and baseball educational. Included are activities that can be used before, during and after the Baseball in Education game that you choose to attend (Dates to be determined).

The curriculum has been divided into four areas of study: ENGLISH / LANGUAGE ARTS, MATHEMATICS, SCIENCE and SOCIAL STUDIES. Although this curriculum has been organized for students in grades K through 8, activities can be easily adapted to accommodate any student. Educators are encouraged to tailor the lessons to meet the needs of their students and use portions of lessons to create their own activities.

The Indians appreciate your participation in this program and hope you find this event worthwhile, educational and enjoyable. We welcome all ideas or comments that would help us improve Baseball in Education or the curriculum.

Was this guide easy to use?
Were there any errors? If so, please inform us so that we may correct them.
Were there activities that stood out from the rest that your students really enjoyed?
Did you further develop any of the activities in ways others might want to know?
Were there any activities that should be altered or removed from the guide?

We would appreciate your feedback and ideas for future editions of this curriculum guide. Please send your lesson plan(s) or idea(s) to:

Indianapolis Indians
Baseball in Education
501 West Maryland Street
Indianapolis, IN 46225
or Indians@IndyIndians.com

Be sure to include your name and school so we can reward you if we use your ideas next year!

Thank you!
Kindergarten English / Language Arts

Standard 1 – READING: Word Recognition, Fluency, and Vocabulary Development

K.1.8  Listen and say the changes in spoken syllables (a word or part of a word that contains one vowel sound) and words with two or three sounds when one sound is added, substituted, omitted, moved, or repeated.

Listen to given baseball words and tell what word is left when you take a beginning or ending sound away.

- bat – take away /b/ sound – leaves at
- bunt – take away /t/ sound – leaves bun
- team – take away /m/ sound – leaves tea
- starter – take away /s/ sound – leaves tarter
- pitcher – take away /er/ sound – leaves pitch
- fielder – take away /er/ sound – leaves field
- player – take away /er/ sound – leaves play
- catcher – take away /er/ sound – leaves catch

K.1.10  Say rhyming words in response to an oral prompt.

Say words that rhyme with the word bat.
Say words that rhyme with the word ball.

K.1.11  Listen to one-syllable words and tell the beginning or ending sounds.

Tell what sounds you hear at the beginning and end of the following baseball words: run, bunt, team, win, fan, walk.

K.1.13  Count the number of syllables in words.

Refer to Appendix C for a list of Baseball-Related Words. Choose words from the list and count the number of syllables in these words.

Standard 5 – WRITING: Applications

K.5.1  Draw pictures and write words for a specific reason.

After attending the Baseball in Education game at Victory Field with your class, write about your experience using pictures, letters, and words that describe your day at the ballpark. Share your writing/picture with a friend or family member and tell them about your experience.

K.7.3  Describe people, places, things (including their size, color, and shape), locations, and actions.
Describe Victory Field to a buddy in another classroom at your school, older sibling, parent, or other adult.
K.7.5 Tell an experience or creative story in logical sequence (chronological order, first second and last).

Tell a parent of other adult about your experience attending the Baseball in Education game with your class.
Kindergarten Mathematics

Standard 2 – Computation

K.2.1 Model addition by joining sets of objects (for any two sets with fewer than 10 objects when joined).

Draw three baseballs. Draw two more baseballs below. Count the total number of baseballs.

Standard 4 – Geometry

K.4.1 Identify and describe common geometric objects: circle, triangle, square, rectangle, and cube.

While attending the Baseball in Education game at Victory Field, look for circles, squares and rectangles on the baseball field and around the ballpark. Share what you saw when the class returns to school.

Standard 5 – Measurement

K.5.2 Understand concepts of time: morning, afternoon, evening, today, yesterday, tomorrow, week, month, and year. Understand that clocks and calendars are tools that measure time.

Use a calendar to talk about the number of months, weeks, and days remaining until the class will attend the Baseball in Education game at Victory Field.
Kindergarten Science

Standard 6 – Common Themes

K.6.1 Describe an object by saying how it is similar to or different from another object.

Describe a baseball by saying how it is similar to and different from a basketball. Describe a baseball field by saying how it is similar to and different from a football field. Use pictures if necessary.
Kindergarten Social Studies

Standard 1 - History

K.1.4 Identify and order events that take place in a sequence.

The day before or the morning of the class trip to Victory Field for the Baseball in Education game, discuss with the class the order of the events that will take place.

Standard 2 – Civics and Government

K.2.5 Identify and follow school rules to ensure order and safety.

Identify the rules that students will need to follow during the class trip to Victory Field. Discuss that the reason for the rules is to ensure order and safety.

Standard 3 - Geography

K.3.4 Give examples of seasonal weather changes and describe how seasonal changes affect people and the environment.

Discuss the weather forecast for the day your class is going to Victory Field. Discuss the types of clothes people should wear depending on the weather forecast.

Standard 4 - Economics

K.4.3 Explain why people in a community have different jobs.

Discuss the different roles/jobs of the players on a baseball team, i.e. pitcher, catcher, infielder, outfield, coach/manager.
Grade 1 English / Language Arts

Standard 1 – READING: Word Recognition, Fluency, and Vocabulary Development

1.1.8 Add, delete, or change sounds to change words.

Tell what letter you would have to change to make the word *run* into the word *fun*. Tell what letter you would have to change to make the word *name* into the word *game*.

1.2.3 Respond to *who, what, when, where, why, and how* questions and discuss the main idea of what is read.

Read *Baseball in the Barrio* by Henry Horenstein or refer to Appendix V to choose another grade-level appropriate book from the list. Discuss the main idea and important events (what, when, why, how), setting (where), and characters (who) from the story.

1.5.2 Write brief expository (informational) descriptions of a real object, person, place, or event, using sensory details.

Write a description of Rowdie, the Indians mascot. Include enough details that the reader can picture Rowdie. In addition, explain the kinds of things you saw Rowdie do during your visit to Victory Field.

1.5.5 Write for different purposes and to a specific audience or person.

Write a letter to a friend or family member describing your class trip to Victory Field for the Baseball in Education game.
Grade 1 Mathematics

Standard 1 – Number Sense

1.1.4 Name the number that is one more than or one less than any number up to 100.

Refer to Appendix Q for a complete Indianapolis Indians roster including jersey numbers. Name the number that is one greater than and/or one less than a particular player’s jersey number. Is there another player on the team that wears that jersey number?

1.1.6 Match the number names (first, second, third, etc.) with an ordered set of up to 10 items.

Refer to Appendix R for an Indianapolis Indians possible Line-up/Batting Order. Match the player names with the appropriate number names (first through ninth) that describe the order in which they will bat.

Standard 3 – Algebra and Functions

1.3.1 Write and solve number sentences from problem situations involving addition and subtraction.

In the fourth inning, the Indians have 4 hits and the Bats have 2 hits. How many hits do both teams have all together? How many more hits do the Indians have?

Standard 4 – Geometry

1.4.2 Identify triangles, rectangles, squares, and circles as the faces of three-dimensional objects.

While at Baseball in Education game with your class, identify and make a list of all of the triangles, rectangles, squares, and circles that you see while at Victory Field. Pay particular attention to the playing field itself.

Standard 5 – Measurement

1.5.2 Use different units to measure the length of the same object and predict whether the measure will be greater or smaller when a different unit is used.

Teachers, in the classroom or hallway, mark off the distance between bases on a regulation baseball field (90 feet). Divide students into small groups and ask each group to measure and record the distance in a different unit (i.e. new pencil, chalkboard eraser, math book, etc.). After each group has measured and recorded their results, discuss as a class the results, why their answers are different, and the kinds of problems this can cause.
Grade 1 Science

Standard 1 – The Nature of Science and Technology

1.1.1 Observe, describe, draw, and sort objects carefully to learn about them

Display a number of baseball-related items (i.e. baseball, bat, glove, hat, etc.) and ask the students to observe, describe, and draw each of the items. Discuss whether the items displayed are necessary to play the game of baseball.

Standard 2 – Scientific Thinking

1.2.6 Describe and compare objects in terms of number, shape, texture, size, weight, color, and motion.

Describe various objects that are used in the game of baseball, i.e. bat, ball, glove, base, helmet. Focusing on the bat and ball, list all of the physical and functional characteristics of these two tools. Discuss other tools that could be used in place of an actual baseball or bat if you wanted to play the game and did not have a bat or ball.
Grade 1 Social Studies

Standard 1 - History

1.1.1 Identify examples of things that have changed and things that have remained the same as students compare their lives with the lives of family members, such as parents and grandparents.

Ask students to talk to parents, grandparents, and other family members to identify how the game of baseball may be different today than when their older relatives were growing up. As a class, discuss what the students have learned from family members about how baseball has changed and how it has remained the same.

1.1.3 Identify American songs and symbols.

Discuss the fact that every ballpark in America displays the American Flag, and at all baseball games (and other sporting events) in the United States “The Star Spangled Banner” is sung before the game. While at Victory Field for the Baseball in Education game, ask students to look for the American Flag and stand to sing the National Anthem.

Standard 2 – Civics and Government

1.2.1 Give examples of people who have the authority to make and enforce rules.

Discuss the role of the umpires in a baseball game and the fact that it is their responsibility to maintain control of the baseball game and enforce the rules that have been established.

1.2.4 Identify why rules and laws exist and describe the consequences of not having rules and laws.

Discuss reasons why it is important to have rules and consequences in baseball and other organized sports to keep participants safe. Talk about what a baseball game might be like if there were no rules and no umpires to maintain control.
Grade 2 English / Language Arts

Standard 1 - READING: Word Recognition, Fluency, and Vocabulary Development

2.1.3 Decode (sound out) regular words with more than one syllable (dinosaur, vacation).

Make a list of baseball terms that have more than one syllable (ex. player, baseball, umpire, diamond, ballpark, etc.). Ask students to sound out each word and determine the number of syllables in each word.

Identify baseball terms that are compound words (ex. baseball, ballpark, homerun).

2.1.4 Recognize common abbreviations (Jan., Fri.).

Refer to Appendix A for a list of abbreviations used in baseball. Common abbreviations like Mon., Apr., Aug., etc. can be applied to a baseball schedule or other statistic page.

2.1.7 Understand and explain common synonyms (words with the same meaning) and antonyms (words with opposite meanings).

Create sentences that pertain to the baseball game that you watched while with your class at Victory Field. For example, The strong player ran quickly to second base. Then create an opposite sentence. For example, The weak player walked slowly to second base. Compare the differences.

Standard 2 - READING: Comprehension

2.2.2 State the purpose for reading.

Read an informational text about baseball and make a list of or explain what things you like and dislike about baseball. Discuss whether or not you would like to play baseball for fun and/or professionally.

Standard 4 - WRITING: Process

2.4.1 Create a list of ideas for writing.

After visiting Victory Field with your class, create a list of events that you could use to write a story.

2.4.3 Find ideas for writing stories and descriptions in pictures or books.

Select a book about baseball (refer to Appendix V for suggestions). Read the book and think about ideas you have for writing a story.

2.4.6 Review, evaluate, and revise writing for meaning and clarity.

Write a story about the visit to Victory Field with your class. When the story is complete, ask a fellow classmate to proofread your work. Make revisions to your story after it has been proofread.
Standard 5 - WRITING: Applications

2.5.3 Write a friendly letter complete with the date, salutation (greeting, such as Dear Mr. Smith), body, closing, and signature.

After attending the game at Victory Field with your class, write a letter to a friend or family member who did not go to the game with you. Describe interesting things that you saw and experienced. Follow the stages of writing and use descriptive words to describe your experience.

Standard 6 - WRITING: English Language Conventions

2.6.4 Identify and correctly write various parts of speech, including nouns (words that name people, places, or things) and verbs (words that express action or help make a statement).

After attending the game at Victory Field with your class, brainstorm a list of nouns and a list of verbs that describe the things and actions that you saw. Then use these lists to write complete sentences about your experience.

Standard 7 - LISTENING AND SPEAKING: Skills, Strategies, and Applications

2.7.6 Speak clearly and at an appropriate pace for the type of communication (such as an informal discussion or a report to class).

2.7.7 Tell experiences in a logical order.

After attending the game at Victory Field with your class, summarize the events of the day in a small group discussion. Discuss each group members’ favorite part of the day or favorite player and why. Tell the other group members what you do or do not like about baseball or why you like another sport.
Grade 2 Mathematics

Standard 1 – Number Sense

2.1.5 Compare whole numbers up to 100 and arrange them in numerical order.

Refer to Appendix Q for a 2003 Indianapolis Indians roster. Write the Indians jersey numbers in numerical order from lowest to highest.

2.1.6 Match the number names (first, second, third, etc.) with an ordered set of up to 100 items.

Refer to Appendix R for a possible batting order for the Indianapolis Indians in 2003. Identify the Indians batting order, from the first batter to the ninth batter.

2.1.7 Identify odd and even numbers up to 100.

Refer to Appendix Q for a 2003 Indianapolis Indians roster. Make a list of odd numbered jersey numbers and a list of even numbered jersey numbers. Determine whether there are more even or odd numbered jersey numbers on the Indians team.

2.1.8 Recognize fractions as parts of a whole or parts of a group (up to 12 parts).

Ask 12 of your classmates if they have been to a baseball game at Victory Field and determine what fraction of your classmates have or have not been to a baseball game at Victory Field.

Standard 3 - Algebra and Functions

2.3.1 Relate problem situations to number sentences involving addition and subtraction.

The Indians scored have 3 runs and the opposing team has scored 5 runs. How many more runs do the Indians need to score to tie the game? How many more runs do the Indians need to score to win the game? Write a number sentence for each of these problems.

Standard 4 - Geometry

2.4.5 Recognize geometric shapes and structures in the environment and specify their locations.

Draw a picture of a baseball diamond. Identify and label all examples of geometric shapes and properties. For example, base (square), pitching rubber (rectangle), home plate (pentagon), batting circle (circle), etc.

Standard 5 - Measurement

2.5.3 Decide which unit of length is most appropriate in a given situation.

Discuss the different units of length and what unit of length would be used to measure certain distances. Decide which unit of length is most appropriate when measuring the distance between the pitcher’s mound and home plate, the distance between the bases, distance from home plate to the outfield wall (for a home run), how far a pitch is out of the strike zone, a player’s height, etc. and explain why.

2.5.8 Estimate temperature. Read a thermometer in Celsius and Fahrenheit.

What do you think the temperature is today (the day of the class trip to Victory Field)? Look at the thermometer to check.

2.5.9 Tell time to the nearest quarter hour, be able to tell five-minute intervals, and know the difference between a.m. and p.m.
What time did the class leave school to go to Victory Field? What time did the bus arrive? What time did the game start? What time did the bus leave Victory Field to take the class back to school?

2.5.11 Find the duration of intervals of time in hours.

Determine the number of hours that you were away from school during your class trip to Victory Field.
Grade 2 Science

Standard 1 - The Nature of Science and Technology
2.1.3 Describe, both in writing and verbally, objects as accurately as possible and compare observations with those of other people.

Write a description, as detailed and accurate as possible, of the following objects: baseball, baseball bat, Rowdie (mascot), etc. Compare your descriptions with fellow classmates.

Standard 3 - The Physical Setting
2.3.7 Investigate and observe that the way to change how something is moving is to give it a push or a pull.

Investigate and observe how a ball being thrown by the pitcher is moving in one direction and when the batter hits it with the bat, it changes the way it moves.

Standard 4 - The Living Environment
2.4.6 Observe and describe the different external features of people, such as their size, shape, and color of hair, skin, and eyes.

Observe and describe the external features (i.e. size, color of hair, skin and eyes, male or female, young or old) of some of the fans that you see at Victory Field.

2.4.7 Give examples of different roles people have in families and communities.

Discuss different roles professional sports players have in the community.

Standard 6 - Common Themes
2.6.1 Investigate that most objects are made of parts.

Pass a baseball around the class and talk about the different parts of a baseball (leather, strings, shape, etc.).
Grade 2 Social Studies

Standard 1 - History

2.1.5 Develop a simple timeline of important events in each student’s life.

*Given a list of important dates in Indians Baseball history, develop a simple timeline of the events.*

Standard 2 - Civics and Government

2.2.1 Discuss the rights and responsibilities of citizens in the school and the community.

*Before attending the game at Victory Field, discuss ideas of what is a good citizen in the classroom and in the community (at a baseball game). Discuss good sportsmanship during a game (baseball or other) and how it relates to being a good citizen. At the game, students can look for instances of good sportsmanship between the Indians players and opposing team.*

2.2.2 Explain why it is necessary for the community to have government.

*Discuss why it is important to have umpires in baseball. Discuss the different roles of people involved in the game: players, managers, coaches, trainers, umpires, etc. Compare the role of umpires to other community leaders, i.e. policemen, judges, parents, teachers and other authority figures.*

Standard 3 - Geography

2.3.1 Use cardinal and intermediate directions to locate places on maps and places in the classroom, school, and community.

*Use cardinal (North, South, East, and West) and intermediate directions (Northeast, Northwest, Southeast, and Southwest) to describe the location of Victory Field in relation to your school, your house, the zoo, the RCA Dome and Conseco Fieldhouse.*

Standard 4 - Economics

2.4.2 Identify community workers who provide goods and services for the rest of the community, and explain how their jobs benefit people in the community.

*Identify people at Victory Field working and providing goods (security, ticket sellers, ticket takers, ushers, gift shop employees, concession stand workers, players, public address announcer, umpires, grounds crew, bat boys, etc.) and explain how their jobs make the fans experience pleasant.*

Standard 5 - Individuals, Society, and Culture

2.5.3 Compare the ways people learn traditions in different cultures.

*Discuss traditions in baseball, i.e. the singing of the National Anthem before every baseball game and “Take Me Out to the Ballgame” during the seventh inning stretch.*
Grade 3 English / Language Arts

Standard 2 - READING: Comprehension
3.2.5 Distinguish the main idea and supporting details in expository (informational) text.

Select an informative sports story (newspaper or magazine article) and determine the main idea of the article and the details that support the main idea.

Standard 4 - WRITING: Process
3.4.1 Find ideas for writing stories and descriptions in conversations with others; in books, magazines, or school textbooks; or on the Internet.

While attending the game at Victory Field with your class, look for different writing ideas that you would be interested in writing about when you return to school.

3.4.4 Use various reference materials (such as a dictionary, thesaurus, atlas, encyclopedia, and online resources).

After attending the game at Victory Field, look up the word “baseball” in the encyclopedia or using another source. Did the rules of the game discussed in the encyclopedia or other source coincide with the way the game was played at Victory Field?

3.4.7 Proofread one’s own writing, as well as that of others, using an editing checklist or list of rules.

Draft a paper about your experience at Victory Field. After you have completed the assignment, exchange papers with a classmate and use an editing checklist to proofread your classmate’s paper.

Standard 5 - WRITING: Applications

(Different Types of Writing and Their Characteristics)
3.5.2 Write descriptive pieces about people, places, things, or experiences that:

Develop a unified main idea.

Use details to support the main idea.

After attending the Indians game with your class, write a description of Victory Field using clear details so that the reader can picture the place and understand how you feel about it and why.

Standard 6 - WRITING: English Language Conventions
3.6.2 Write correctly complete sentences of statement, command, question, or exclamation, with final punctuation.

Declarative: This tastes very good.

Imperative: Please take your seats.

Interrogative: Are we there yet?
Exclamatory: It’s a home run!

Use interesting statements, commands, questions and exclamations with correct final punctuation to describe your experience at Victory Field.

3.6.9 Arrange words in alphabetical order.

Refer to Appendix C for a list of baseball-related words. Arrange the words in alphabetical order.

Standard 7 - LISTENING AND SPEAKING: Skills, Strategies, and Applications

3.7.5 Organize ideas chronologically (in the order that they happened) or around major points of information.

Organize the events of your visit to Victory Field with your class in chronological order, beginning in the morning and ending when you leave school for the day.
Grade 3 Mathematics

Standard 1 - Number Sense
3.1.5 Compare whole numbers up to 1,000 and arrange them in numerical order.

Refer to Appendix Q for a 2003 Indians team roster. Using data from the roster, organize the position players, i.e. infielders, outfielders, catchers, in order by number of homeruns (HR) from highest to lowest.

3.1.13 Interpret data displayed in a circle graph and answer questions about the situation.

Have the students in your class choose the ballpark food they like best from these choices: hot dog, hamburger, chicken tenders, pizza. Using a bar graph, circle graph or pie graph, determine the most popular and least popular choice.

Standard 2 - Computation
3.2.2 Represent the concept of multiplication as repeated addition.

Rowdie will slingshot 6 soft baseballs into the crowd for 3 days in a row. Draw a picture to show how many soft baseballs Rowdie will slingshot during those 3 days.

3.2.3 Represent the concept of division as repeated subtraction, equal sharing, and forming equal groups.

Rowdie has 16 soft baseballs to share equally with 4 of his friends. Draw a picture to show how many soft baseballs Rowdie gave to each of his friends.

Standard 3 - Algebra and Functions
3.3.1 Represent relationships of quantities in the form of a numeric expression or equation.

While at Victory Field, you buy three temporary tattoos from the gift shop that cost 60 cents each. You pay the cashier and receive 20 cents in change. Write an equation to find the amount of money you gave to the cashier.

3.3.6 Solve simple problems involving a functional relationship between two quantities.

At Victory Field, a bag of cotton candy costs 50 cents. Find the costs of 1,2,3,4… orders of cotton candy. What pattern do you notice? Continue the pattern to find the cost of enough bags of cotton candy for each person in your class to have one.

Standard 4 - Geometry
3.4.2 Identify right angles in shapes and objects and decide whether other angles are greater or less than a right angle.

Identify and list examples of right angles you see at Victory Field. Also note whether other angles you see are greater than or less than a right angle.

Standard 5 - Measurement
3.5.9 Tell time to the nearest minute and find how much time has elapsed.

Note the time that you leave your school to go to Victory Field and the time that you arrive at Victory Field. How much time did it take to travel from your school to Victory Field? Do you think it will take the same amount of time to travel from Victory Field to your school, or will it take more or less time? Note the time that you
leave Victory Field to return to school and the time that you arrive back at school. Did it take the same amount of time to travel from Victory Field to school as it took to travel from school to Victory Field? Was your guess correct?

3.5.10 Find the value of any collection of coins and bills. Write amounts less than a dollar using the ¢ symbol and write larger amounts in decimal notation using the $ symbol.

While at an Indians game, you go to the concession stand to purchase one hot dog and one small Pepsi. The items cost $2.35 total. You have one dollar bill, one quarter, two dimes and one nickel. How much money do you have? Is this enough to buy the hot dog and small Pepsi?

3.5.11 Use play or real money to decide whether there is enough money to make a purchase.

You have $5 to spend at the concession stand at Victory Field. Chicken tenders cost $3.50, a slice of pizza costs $4.25 and a small Pepsi costs $1.50. Do you have enough to buy chicken tenders and a small Pepsi? Do you have enough money to buy a slice of pizza and a small Pepsi?

**Standard 6 - Problem Solving**

3.6.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, sequencing and prioritizing information, and observing patterns.

You are at an Indians game with your dad and 2 of your friends. The Indians score 4 runs in the third inning and 2 more runs in the seventh inning. The opposing team scores 2 runs in the first inning and 3 more runs in the sixth inning. Which team is leading after the fifth inning? If no other runs are scored, what is the final score?
Grade 3 Science

Standard 1 - The Nature of Science and Technology
3.1.7 Recognize that and explain how an invention can be used in different ways, such as a radio being used to get information and for entertainment.

*Describe how the invention of the radio and television has influenced the game of baseball and how it has helped continue the love of the game and attract new fans.*

Standard 3 - The Physical Setting
3.3.1 Observe and describe the apparent motion of the sun and moon over a time span of one day.

*Observe and describe your shadow when you arrive at Victory Field and note the time. Observe and describe your shadow when you leave Victory Field and note the time. Observe and describe the shadow on the field and how it changes throughout the game.*

3.3.6 Describe ways human beings protect themselves from adverse weather conditions.

*Research normal weather conditions in April, May, June, July and August. Describe appropriate attire for an Indians game during each of those months based on normal weather conditions.*

Standard 4 - The Living Environment
3.4.7 Explain that eating a variety of healthful foods and getting enough exercise and rest help people to stay healthy.

*Discuss and compare the types and amounts of food and exercise that a third-grade student needs to be healthy verses a professional baseball player. What about rest?*

3.4.9 Explain that some diseases are caused by germs and some are not. Note that diseases caused by germs may be spread to other people. Also understand that hand washing with soap and water reduces the number of germs that can get into the body or that can be passed on to other people.

*Discuss the number of people who visit Victory Field each season and why it is important to wash your hands when you are in a public place, i.e. restrooms, eating at the game, outdoor venue, dirt.*

Standard 6 - Common Themes
3.6.1 Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.

*At the game, discuss what would happen in a baseball game if there were no longer any outfielders on the team. Discuss the different challenges to having only 1, 2, 3, and so on players on a team.*

3.6.2 Investigate how and describe that something may not work if some of its parts are missing.

*Discuss the concept of a team of baseball players and how they must all work together to be successful. What would happen if one or more of the parts of the team were missing?*
Grade 3 Social Studies

Standard 1 - History

3.1.5 Develop simple timelines of events in the local communities.

Use the Indians Insider (online newsletter available at www.IndyIndians.com) and develop a timeline of upcoming Indians activities.

3.1.7 Use a variety of community resources- such as libraries, museums, and county historians- to gather information about the local community.

Visit your local library or Indiana Historical Society to study the history of baseball and its affect on American society.

Standard 2 - Civics and Government

3.2.2 Identify fundamental democratic principles and ideals in American songs, stories, and symbols.

Discuss the baseball traditions of singing the National Anthem prior to the start of a baseball game and singing “Take Me Out To the Ballgame” during the seventh-inning stretch.

3.2.4 Explain the consequences of violating laws, and identify the duties of and selection process for local officials who make, apply, and enforce laws through government.

Discuss the Umpires’ role in a baseball game. Compare and contrast the job of an umpire with that of a police officer.

Standard 4 - Economics

3.4.2 Give examples of goods and services provided by local government.

Give examples of goods and services offered by a ballpark.

3.4.7 Explain that buyers and sellers interact to determine the prices of goods and services in markets.

Ask five people of different backgrounds (i.e. parent, grandparent, sibling, classmate, etc.) what that person would pay to attend a baseball game. Discuss how different buying behaviors affect the actual ticket price.
Grade 4 English / Language Arts

Standard 1 - READING: Word Recognition, Fluency, and Vocabulary Development

4.1.1 Read aloud grade-level-appropriate literary and informational texts with fluency and accuracy and with appropriate timing, changes in voice, and expression.

Select a sports-related article from the local newspaper or a magazine to read aloud in front of the class.

Standard 2 - READING: Comprehension

4.2.6 Distinguish between cause and effect and between fact and opinion in informational text.

Using the local newspaper, select an article about an Indians baseball game and distinguish between the facts of the game and the opinions of the author, coaches, players, radio announcers, etc. who are writing/talking about the game.

Standard 4 - WRITING: Process

4.4.7 Use multiple reference materials and online information (the Internet) as aids to writing.

Utilize the Internet as a reference tool and the Indians homepage (www.IndyIndians.com) for reference material when researching a sports-related topic.

Standard 5 - WRITING: Applications

(Different Types of Writing and Their Characteristics)

4.5.3 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:

Includes information from a variety of sources (books, technology, multimedia) and documents sources (titles and authors).

Demonstrates that information that has been gathered has been summarized

Organizes information by categorizing it into multiple categories (such as solid, liquid, and gas or reduce, reuse, and recycle) or includes information gained through observation

After conducting library or Internet research, write a report about the history of different baseball players who have played in Indianapolis. Include information about where these people came from, where they played before Indianapolis, and where they played after.
Standard 6 - WRITING: English Language Conventions

4.6.3 Create interesting sentences by using words that describe, explain, or provide additional details and connections, such as verbs, adjectives, adverbs, appositives, participial phrases, prepositional phrases, and conjunctions.

Verbs: We strolled by the river.
Adjectives: brown eyes, younger sisters
Adverbs: We walked slowly.
Appositives: noun phrases that function as adjectives, such as We played the Cougars, the team from Newport.
Participial phrases: verb phrases that function as adjectives, such as The man walking down the street saw the delivery truck.
Prepositional phrases: in the field, across the room, over the fence
Conjunctions: and, or, but

Create descriptive sentences about the trip to Victory Field with your class, focusing specifically on adjectives, adverbs, appositives, participial phrases, prepositional phrases, and conjunctions.

Standard 7 - LISTENING AND SPEAKING: Skills, Strategies, and Applications

4.7.12 Make informational presentations that:
Focus on one main topic.
Include facts and details that help listeners to focus.
Incorporate more than one source of information (including speakers, books, newspapers, television broadcasts, radio reports, or Web sites).

Research, write a paper/report and give an oral presentation on a professional baseball player.
Grade 4 Mathematics

Standard 1 - Number Sense
4.1.1 Read and write whole numbers up to 1,000,000.
Refer to Appendix F for the 2003 Minor League Baseball Attendance Overall Rankings page. Read aloud and write the yearly attendance figures when they are read to you.

4.1.3 Round whole numbers up to 10,000 to the nearest ten, hundred, and thousand.
Refer to Appendix G for the 2003 Minor League Baseball Attendance Rankings by Average/Opening page. Round the average attendance figures to the nearest thousand.

4.1.4 Order and compare whole numbers using symbols for “less than” (<), “equal to” (=), and “greater than” (>).
Refer to Appendix I for the 2003 International League average attendance figures. Order and compare the average attendance of International League teams using symbols for “less than”, “greater than” and “equal to”.

4.1.9 Round two-place decimals to tenths or to the nearest whole number.
Refer to Appendix S for a list of 2003 Indianapolis Indians pitchers. Using the Earned Run Averages (ERA’s) from the 2002 season provided, round each pitcher’s ERA to the nearest whole number.

Standard 2 - Computation
4.2.2 Represent as multiplication any situation involving repeated addition.
There are 24 players on the Indianapolis Indians roster, and each player autographs 3 baseballs to give to charity. How many total autographed baseballs do the Indians have to donate to various charities?

4.2.3 Represent as division any situation involving the sharing of objects or the number of groups of shared objects.
Divide 64 Indians game tickets equally among 4 families. Divide 64 Indians game tickets equally so that each family gets 4 tickets. Compare your answers and methods.

Standard 3 - Algebra and Functions
4.3.3 Understand that multiplication and division are performed before addition and subtraction in expressions without parentheses.
You go to the Hot Corner Gift Shop at Victory Field with $10. You buy 2 Indians pennants for $2.50 each. Write an expression for the amount of money you have left and find its value.

Standard 4 - Geometry
4.4.1 Identify, describe, and draw rays, right angles, acute angles, obtuse angles and straight angles using appropriate mathematical tools and technology.

4.4.2 Identify, describe and draw parallel, perpendicular, and oblique lines using appropriate mathematical tools and technology.
Identify parallel and perpendicular lines on a baseball field.

**Standard 5 - Measurement**

4.5.1 Measure length to the nearest quarter-inch, eighth-inch, and millimeter.

*Draw a picture of a baseball diamond and label it with the appropriate measurements.*

4.5.10 Determine the amount of change from a purchase.

*You come to Victory Field with $10. Your ticket costs $5. You buy a Pepsi for $1.50 and a hot dog for $2. How much money do you have left?*

**Standard 6 - Data Analysis and Probability**

4.6.1 Represent data on a number line and in tables, including frequency tables.

*Refer to Appendix H for the 2003 International League Yearly Attendance Figures. Graph the yearly attendance of the International League teams using the attendance figures for the 2003 season.*

4.6.2 Interpret data graphs to answer questions about a situation.

*Answer questions about your graph.*

**Standard 7 - Problem Solving**

4.7.8 Make precise calculations and check the validity of the results in the context of the problem.

*The buses you will use to take a school trip to Victory Field hold 55 people each. How many buses will you need to seat 250 people? 1400 people?*
Grade 4 Science

Standard 1 - The Nature of Science and Technology
4.1.7 Discuss and give examples of how technology, such as computers and medicines, has improved the lives of many people, although the benefits are not equally available to all.

Discuss the benefits of a ballpark having a video board like the one at Victory Field verses a color matrix board. Possible benefits include ability to show replays, show up-close events that take place on the field, fans get to see themselves on the “big screen”.

Standard 3 - The Physical Setting
4.3.9 Draw or correctly select drawings of shadows and their direction and length at different times of day.

Note the direction and length of your shadow before you get on the bus to go to Victory Field, make a sketch. Note the direction and length of your shadow when you arrive back at school after the game, make a sketch. Note the shadow on Victory Field at the beginning of the game and notice any changes as the game continues.

Standard 4 - The Living Environment
4.4.9 Explain that food provides energy and materials for growth and repair of body parts. Recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. Further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.

Compare a fourth-grader’s need for food and exercise with the amount of food and exercise needed by professional baseball players. Discuss reasons.

Standard 5 - The Mathematical World
4.5.4 Demonstrate how graphical displays of numbers may make it possible to spot patterns that are not otherwise obvious, such as comparative size and trends.

Refer to Appendix I for the 2003 International League average attendance figures and ballpark capacity. Graph the average attendance figures of teams in the International League using the numbers provided. Compare average attendance figures with ballpark capacity for each of the IL teams. Look for any patterns and trends.

Standard 6 - Common Themes
4.6.2 Show that something may not work as well, or at all, if a part of it is missing, broken, worn out, mismatched, or incorrectly connected.

What if baseball shoes did not have cleats? Brainstorm a list of items and people that are part of a baseball game (i.e. players, umpires, baseball, etc.). After those items have been identified, discuss what would happen if one or more of the items were missing or broken.
Grade 4 Social Studies

Standard 1 - History

4.1.13 Organize and interpret timelines that show relationships among people, events, and movements in the history of Indiana.

Refer to Appendix B for a list of current and former Major League affiliates of the Indianapolis Indians. Create a timeline of major league affiliates of the Indianapolis Indians.

4.1.14 Distinguish fact from opinion and fact from fiction in historical documents and other information resources.

Given a list of statements about the Indianapolis Indians and Victory Field, determine whether they are fact or opinion.

4.1.15 Using primary source and secondary source materials, generate a question, seek answers, and write brief comments about an event in Indiana history.

Standard 3 - Geography

4.3.1 Use latitude and longitude to locate places in Indiana and other parts of the world.

Use latitude and longitude to locate cities that represent teams in the International League.

4.3.2 Estimate distances between two places on a map, using a scale of miles, and use cardinal and intermediate directions when referring to relative location.

Refer to Appendix E for a list of International League cities. Determine the distance from Indianapolis to each other International League city in miles. Use cardinal and intermediate directions when referring to travelling to other IL cities.
Grade 5 English / Language Arts

Standard 1 - READING: Word Recognition, Fluency, and Vocabulary Development
5.1.5 Understand and explain the figurative use of words in similes (comparisons that use *like* or *as*: *The stars were like a million diamonds in the sky.*) and metaphors (implied comparisons: *The stars were brilliant diamonds in the night sky.*).

*Use similes and metaphors to form sentences describing your experience at Victory Field.*

Standard 2 - READING: Comprehension
5.2.4 Draw inferences, conclusions, or generalizations about text and support them with textual evidence and prior knowledge.

*After reading books and researching Jackie Robinson, compare life today with life during the time that Jackie Robinson lived, supporting the comparison with ideas from the text, from experiences or from outside sources. Refer to Appendix V for a list of baseball books.*

5.2.5 Distinguish among facts, supported inferences, evidence, and opinions in text.

*After researching the life of Jackie Robinson, distinguish among facts, supported inferences, evidence and opinions that authors wrote about Jackie Robinson and his experiences. Refer to Appendix V for a list of baseball books.*

Standard 3 - READING: Literary Response and Analysis
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.

*Choose an article out of the sports section of local newspaper and analyze the author’s purpose in writing the article (i.e. to inform, to teach, to entertain, etc.). Discuss how well that purpose is achieved.*

Standard 4 - WRITING: Process
5.4.3 Write informational pieces with multiple paragraphs that:
Present important ideas or events in sequence or in chronological order.
Provide details and transitions to link paragraphs.
Offer a concluding paragraph that summarizes important ideas and details.
Research one of the following topics: Victory Field, Minor League Baseball, Indianapolis Indians, downtown Indianapolis or White River State Park. Using the information that you learn about the chosen topic, write a report that presents important ideas or events in sequence or in chronological order, provides interesting details, and a concluding paragraph that summarizes important ideas and details.

5.4.8 Review, evaluate, and revise writing for meaning and clarity.

5.4.9 Proofread one’s own writing, as well as that of others, using an editing checklist or set of rules, with specific examples of corrections of specific errors.

5.4.10 Edit and revise writing to improve meaning and focus through adding, deleting, combining, clarifying, and rearranging words and sentences.

Work with a partner who has chosen a different topic to research and help each other review, evaluate and revise your writing for meaning and clarity. Use the editing checklist and look for ways to improve meaning through adding, deleting, combining, clarifying, and rearranging words and sentences.

Standard 5 - WRITING: Applications

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 information that has been gathered has been summarized
- Organizes information by categorizing and sequencing
- Use a variety of information sources, including firsthand interviews, reference materials, and electronic resources, to locate information for the report.

After completing library or Internet research, write a research report about the history of professional baseball in Indianapolis. Be sure to include information about Negro League baseball.

5.5.4 Write persuasive letters or compositions that:

- State a clear position in support of a proposal.
- Support a position with relevant evidence and effective emotional appeals.
- Follow a simple organizational pattern, with the most appealing statements first and the least powerful ones last.
- Address reader concerns.

Write a letter to a friend or family member who has not attended a game at Victory Field but whom you think would enjoy the experience. Persuade them to go to an Indians game at Victory Field.

Create a survey with interview questions about attending games at Victory Field. Include questions about why people do attend games at Victory Field (if they do), why they do not attend games at Victory Field (if they do not), what they enjoy, etc. Compile the opinions to write a persuasive article for the school newspaper.
Grade 5 Mathematics

Standard 1 - Number Sense

5.1.3 Arrange in numerical order and compare whole numbers or decimals to two decimal places by using the symbols for less than (<), equals (=), and greater than (>).

Refer to Appendix S for a list of Earned Run Averages for Indianapolis Indians pitchers. Arrange the pitchers on the Indians roster in order by lowest Earned Run Average (ERA) to highest ERA. Refer to Appendix U for information on how to figure a pitcher’s ERA.

5.1.6 Describe and identify prime and composite numbers.

Refer to Appendix Q for a 2003 Indianapolis Indians roster. Using the jersey numbers of the Indians players that has been provided, identify the jersey numbers that are prime.

Standard 5 - Measurement

5.5.6 Compare temperatures in Celsius and Fahrenheit, knowing that the freezing point of water is 0°C and 32°F and that the boiling point is 100°C and 212°F.

Given the game-time temperature in Fahrenheit (the temperature at the time the game starts), determine the equivalent temperature in Celsius.

5.5.7 Add and subtract with money in decimal notation.

In the gift shop at Victory Field, you purchase items that cost $2.25, $4.55, and $7.25. How much change will you receive from $20?

Standard 6 - Data Analysis and Probability

5.6.1 Explain which types of displays are appropriate for various sets of data.

Conduct a survey to find the favorite sport of the students in your class. Decide whether to use a bar, line, or picture graph to display the data. Explain your decision.

5.6.2 Find the mean, median, mode, and range of a set of data and describe what each does and does not tell about the data set.

Find the mean, median, and mode of a set of test results and describe how well each represents the data.
Grade 5 Science

Standard 3 - The Physical Setting

5.3.11 Investigate and describe that changes in speed or direction of motion of an object are caused by forces. Understand that the greater the force, the greater the change in motion and the more massive an object, the less effect a given force will have.

Investigate and describe how the speed of a ball being thrown by the pitcher and the force with which the batter hits the ball with the bat affects the distance the ball travels when hit.

5.3.13 Demonstrate that Earth’s gravity pulls any object toward it without touching it.

Using a variety of baseball bats of different lengths and string, find the center of gravity on each bat. First, predict where you think the center of gravity may be located. Tie the string (about 2 feet) to the bat somewhere around the middle, making the knot loose so you can slide the knot up and down the bat if necessary. Let the bat hang horizontally from the string so the bat becomes balanced. Adjust the knot if necessary to enable the bat to hang balanced. This will tell you where the center of gravity is located. Measure the distance from the thick end of the bat to the place at which the knot is balancing the bat. How close were your predictions. At the Indians game with your class, notice the size of the players’ baseball bats. What can the size of one’s bat tell you about the type of player he is?

Standard 5 - The Mathematical World

5.5.4 Compare shapes in terms of concepts, such as parallel and perpendicular, congruence, and symmetry.

Research the size and shape of various Minor League and Major League ballparks across the country. Compare the size and shape of Victory Field to other ballparks in terms of congruence and symmetry.

5.5.7 Explain that predictions can be based on what is known about the past, assuming that conditions are similar.

Using statistics provided in Appendix T, make predictions as to how certain Indians players will perform in the game that you attend with your class. For example, if a player has an average of .125 going into the game, would you predict that he would have multiple hits or few or no hits? How could knowing a player’s statistics benefit the opposing team?
Grade 5 Social Studies

Standard 2 - Civics and Government
5.2.1 Explain why people need government by considering what life would be like in the absence of government. Compare the idea of an absence of government with the idea of an absence of umpires in a baseball game.

Standard 3 - Geography
5.3.2 Name and locate states, major cities, major regions, major rivers and mountain ranges in the United States.

Refer to Appendix E for a list of International League cities. On a US map, locate each city that is part of the International League. Determine the distance between Indianapolis and each city. Plot on a map. Determine what direction you would have to travel to get to each city from Indianapolis.

5.3.5 Map and describe the characteristics of climate regions of the United States.

Refer to Appendix L for a list of cities that are home to a baseball team in the Milwaukee Brewers farm system. Research and compare the climate in each given city. Determine in which city, based on climate, you would most like to live.
Grade 6 English / Language Arts

Standard 1 – READING: Word Recognition, Fluency, and Vocabulary Development

6.1.1 Read aloud grade-level appropriate poems and literary and informational texts fluently and accurately and with appropriate timing, changes in voice, and expression.

Refer to Appendix N for a copy of Casey at the Bat. Ask the students to divide up into partners or small groups. Each group will develop a plan to creatively read Casey at the Bat aloud to the rest of the class. Each person in the group will have a part in reading the poem aloud. Encourage the groups to be creative while paying particular attention to fluency, accuracy, timing, and changes in voice and expression.

6.1.2 Identify and interpret figurative language (including similes, comparisons that use like or as, and metaphors, implied comparisons) and words with multiple meanings.

Read the poem Casey at the Bat (Appendix N) and discuss its contents with students. Identify and interpret figurative language used throughout the poem. Discuss ways the author, Ernest Lawrence Thayer could have added additional similes and metaphors in the poem.

6.1.4 Understand unknown words in informational texts by using word, sentence, and paragraph clues to determine meaning.

Using context clues, encourage students to discuss within groups the meanings of any unknown words found in Casey at the Bat (Appendix N).

Standard 2 – READING: Comprehension

6.2.1 Identify the structural features of popular media (newspapers, magazines, and online information) and use the features to obtain information.

Use note-taking skills.

Use a computer to compose documents with appropriate formatting by using word-processing skills and principles of design, including margins, tabs, spacing, columns, and page orientation.
Using the newspaper, Internet and any other resources, research and find information on a topic of their choice. Possible topics might include: history of the Indianapolis Indians, history of Minor League Baseball, a particular Major League Team, the history of baseball, the Little League World Series, Negro League Baseball, or a particular baseball player from the past. Write an informational piece of several paragraphs that educates readers on the topic that you chose to research. Review, evaluate, and revise your writing for meaning and clarity. (6.4.8) Edit and proofread your writing. (6.4.9) Revise your writing to improve the organization and consistency of ideas within and between paragraphs. (6.4.10)

6.2.4 Clarify an understanding of texts by creating outlines, notes, diagrams, summaries, or reports.

After reading and discussing the poem *Casey at the Bat* (Appendix N), ask students to create a detailed outline, diagram, summary, or report that describes the events of *Casey at the Bat* in the appropriate order.

6.2.6 Determine the appropriateness of the evidence presented for an author’s conclusions and evaluate whether the author adequately supports inferences.

Each student should choose a non-fiction book at an appropriate reading level from Appendix V. After reading the book, students should note the author’s opinions and conclusions, and decide if the author’s opinions and conclusions are adequately supported by the facts presented in the book.

**Standard 3 – READING: Literary Response and Analysis**

6.3.5 Identify the speaker and recognize the difference between first-person (the narrator tells the story from the “I” perspective) and third-person (the narrator tells the story from an outside perspective) narration.

Read an autobiography of a former or current baseball player (see Appendix V for a list of books on baseball), and compare it to a biography written about the same person. Describe how the story of the person is shown in different ways when told in the first-person compared to third-person narration.

**Standard 5 – WRITING: Writing Applications**

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.

Use a range of narrative devices, such as dialogue or suspense.

**Read the poem *Casey at the Bat* (Appendix N). Ask students to rewrite the story, telling the story from another point of view.**

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
- 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).

**After completing library or Internet research, present an oral report to the class on a former or current baseball figure to research. Include how this individual impacted the game of baseball and why his accomplishments are so significant.**

6.5.5 Write persuasive compositions that:

- State a clear position on a proposition or proposal.
- Support the position with organized and relevant evidence and effective emotional appeals.
- Anticipate and address reader concerns and counter-arguments.

**Write a persuasive essay that convinces readers that Indianapolis Indians Baseball at Victory Field is a fun and affordable entertainment for people of all ages.**
Grade 6 Mathematics

Standard 1 – Number Sense

6.1.3 Compare and represent on a number line positive and negative integers, fractions, decimals (to hundredths), and mixed numbers.

Using the statistics provided below, classify the numbers as whole numbers (W), fractions (F), decimals (D), and integers (I). Refer to Appendix A for a list of common baseball abbreviations.

1) .292 AVG _____ 2) 2.59 ERA _____ 3) .422 OBP _____

4) 105 2/3 IP _____ 5) 284 AB _____ 6) .364 SLG _____

Given the statistics provided in Appendix T (Batting Statistics), compare and order the players’ by batting average (AVG), slugging percentage (SLG) and on-base percentage (OBP).

6.1.4 Convert between any two representations of numbers (fractions, decimals, and percents) without the use of a calculator.

Refer to Appendix X or visit IndyIndians.com for a copy of the Indians 2004 schedule. Using the Indians schedule, develop 10 problems involving fractions, decimals, and percents that can be solved by another classmate by referring to the Indians schedule. For example, percentage of home games on Saturdays, fraction of home games against the Louisville Bats, etc.

Standard 2 – Computation

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.

The baseball game started at 7pm, and the first 2 innings of the game were played in 40 minutes. If the game continues at this pace, what time will it be after 5 innings? What time will it be when the game ends (after 9 innings)?

6.2.7 Understand proportions and use them to solve problems.
The Indians leader in stolen bases (SB) was caught stealing (CS) 6 times in 30 attempts. Use a proportion to show how many times he would be caught stealing in 50 attempts. In 112 attempts.

**Standard 5 – Measurement**

6.5.9 Use a formula to convert temperatures between Celsius and Fahrenheit.

Use television, newspaper, Internet or other sources to find the expected high and low temperatures in degrees Fahrenheit for the Baseball in Education game your class is attending. Convert these temperatures to Celsius. Predict what the game-time temperature will be in both Fahrenheit and Celsius.

6.5.10 Add, subtract, multiply, and divide with money in decimal notation.

While at Victory Field you want to purchase one large popcorn that costs $4.25 and one small pizza that costs $5.50. You are going to share the popcorn and pizza with 2 friends. In addition, you are going to purchase a small Pepsi that costs $2.25, and your 2 friends are each going to purchase a bottle of water that costs $2.50 each. What is the total amount due for the popcorn, pizza and Pepsi? If you are going to split the cost of the popcorn and pizza with your friends, how much will each person owe?

Students should be instructed to keep track of the amount of money that they spend while at the Baseball in Education game. Upon returning to school, students should be asked to answer the following questions:

How much money did you spend when you attended the Baseball in Education game at Victory Field (tickets, food, souvenirs, etc.)?

What was the total amount of money spent by the class?

What was the average amount of money spent per student?

**Standard 6 – Data Analysis and Probability**

6.6.5 Use data to estimate the probability of future events.

The Indians have played the Louisville Bats three times this season. The Indians have won two of the games and the Bats have won one. When they play again, what is the probability of the Indians winning? How accurate do you think this estimate is?
6.6.6 Understand and represent probabilities as ratios, measures of relative frequency, decimals between 0 and 1, and percentages between 0 and 100 and verify that the probabilities computed are reasonable.

Indians outfielder Pete Zoccolillo has a batting average of .389. (Refer to Appendix U for figuring batting average.) If he bats four times during the Indians game today, should you expect to see him get a hit? Explain your answer.

Indians pitcher Derek Lee has an ERA (Earned Run Average) of 3.75. (Refer to Appendix U for figuring ERA.) If Derek pitches seven innings and the Indians score five runs, would you predict that the Indians will win the game? Explain your answer and what factors you would need to consider.
Grade 6 Science

Standard 1 – The Nature of Science and Technology

6.1.5 Identify places where scientists work including offices, classrooms, laboratories, farms, factories, and natural field settings ranging from space to the ocean floor.

Discuss the many ways in which a groundskeeper at Victory Field uses science daily to keep the playing field in good condition. Consider weather conditions and the effect the weather has on the field and playing conditions.

6.1.6 Explain that computers have become invaluable in science because they speed up and extend people’s ability to collect, store, compile, and analyze data; prepare research reports; and share data and ideas with investigators all over the world.

Discuss the many ways that computers make a groundskeeper’s job easier. Consider how computers can help control irrigation, log information, and monitor the weather conditions.

Standard 5 – The Mathematical World

6.5.6 Predict the frequency of the occurrence of future events based on data.

Using the statistics found in Appendix T (batting statistics), discuss how a player’s average (AVG), on-base percentage (OBP), and slugging percentage (SLG) may affect the way the opposing team pitches to a particular batter. How may the statistics of the player batting next affect the way a team pitches to the current batter?
Grade 6 Social Studies

Standard 1 – History

6.1.19 Analyze the cause-and-effect relationships, keeping in mind multiple causation, including the importance of individuals, ideas, human interests, beliefs, and chance in history.

Research and discuss the history of the game of baseball and the way various historical events, times, beliefs, and individuals have impacted the state of baseball throughout its existence. Provide specific examples.
**Grade 7 English / Language Arts**

**Standard 3 – READING: Literary Response and Analysis**

7.3.3 Analyze characterization as shown through a character’s thoughts, words, speech patterns, and actions; the narrator’s description; and the thoughts, words, and actions of other characters.

**Read and discuss the poem *Casey at the Bat* (Appendix N). As a class or small group, describe the characteristics of Casey, using examples of his words and actions as well as those of the other characters in the poem to support this description.**

7.3.5 Contrast points of view – such as first person, third person, limited and omniscient, and subjective and objective – in a literary text and explain how they affect the overall theme of the work.

First person: the narrator tells the story from the “I” perspective

Third person: the narrator tells the story from an outside perspective

Limited narration: the narrator does not know all thoughts of all characters

Omniscient narration: the narrator knows all thoughts of all characters

Subjective: the point of view involves a personal perspective

Objective: the point of view is from a distanced, informational perspective, as in a news report

**After reading the poem *Casey at the Bat* (Appendix N), discuss the point of view from which the writer has chosen to tell the story and how this point of view affects the impact of the poem on the reader. Discuss how the theme of the poem would be changed if told in the first person, from the perspective of Casey, the fans, the pitcher, or the umpire.**

**Standard 5 – WRITING: Applications**

7.5.1 Write biographical or autobiographical compositions that:
Develop a standard plot line – including a beginning, conflict, rising action, climax, and denouement (resolution) – and point of view.

Develop complex major and minor characters and a definite setting.

Use a range of appropriate strategies, such as dialogue; suspense; and the naming of specific narrative action, including movement, gestures, and expressions.

Write a two- or three-page story about your trip to Victory Field for the Baseball in Education game. Include an engaging opening; dialogue between characters; and descriptive details about the setting, plot, and characters.

7.5.4 Write persuasive compositions that:

State a clear position or perspective in support of a proposition or proposal.

Describe the points in support of the proposition, employing well-articulated evidence and effective emotional appeals.

Anticipate and address reader concerns and counter-arguments.

Write a persuasive letter to the Indians that will convince them that they should select you (or another classmate if you are not interested) to interview a player or manager from the team or a member of their front office staff prior to the Baseball in Education game that you attend. Who knows, if your letter is convincing you may be invited to conduct an interview prior to the game.

Standard 6 – WRITING: English Language Conventions

7.6.4 Identify all parts of speech (verbs, nouns, pronouns, adjectives, adverbs, prepositions, conjunctions, and interjections) and types and structure of sentences.

Write 10 interesting sentences that describe your visit to Victory Field for the Baseball in Education game. Exchange papers with a partner and label the parts of speech and types and structure of their sentences. In addition, offer suggestions as to how they can make their sentences more interesting.

Standard 7 – LISTENING AND SPEAKING: Skills, Strategies, and Applications

7.7.9 Deliver oral summaries of articles and books that:
Include the main ideas and the most significant details.

State ideas in own words, except for when quoted directly from sources.

Demonstrate a complete understanding of sources, not just superficial details.

Refer to the listing of Indianapolis Indians Press Releases that can be found at IndyIndians.com. Choose a press release to read and summarize orally following the points listed above.

Grade 7 Mathematics

Standard 2 – Computation

7.2.2 Calculate the percentage increase and decrease of a quantity.

Using the graph below, calculate the percentage increase or decrease in attendance at Victory Field from year to year.

<table>
<thead>
<tr>
<th>Year</th>
<th>1997</th>
<th>1998</th>
<th>1999</th>
<th>2000</th>
<th>2001</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Attendance</td>
<td>639,830</td>
<td>659,237</td>
<td>658,250</td>
<td>672,135</td>
<td>620,275</td>
</tr>
</tbody>
</table>

7.2.4 Use estimation to decide whether answers are reasonable in problems involving fractions and decimals.

Player A has 4 hits in 11 at-bats. Player B has 18 hits in 52 at-bats. Who has the higher batting average? Refer to Appendix U for the formula for figuring Batting Average.

Standard 3 – Algebra and Functions

7.3.4 Evaluate numerical expressions and simplify algebraic expressions by applying the correct order of operations and the properties of rational numbers (e.g., identity, inverse, commutative, associative, distributive properties). Justify each step in the process.
Using the information provided below and the formulas provided in Appendix U, figure the player’s Batting Average (AVG), Slugging Percentage (SLG), and On-base Percentage. If necessary, refer to Appendix A for a list of common baseball abbreviations.

<table>
<thead>
<tr>
<th>AB</th>
<th>H</th>
<th>2B</th>
<th>3B</th>
<th>HR</th>
<th>SF</th>
<th>BB</th>
<th>HP</th>
</tr>
</thead>
<tbody>
<tr>
<td>456</td>
<td>113</td>
<td>17</td>
<td>5</td>
<td>11</td>
<td>4</td>
<td>24</td>
<td>8</td>
</tr>
</tbody>
</table>

**Standard 5 – Measurement**

7.5.3 Read and create drawings made to scale, construct scale models, and solve problems related to scale.

Using the dimensions of Victory Field provided, create a drawing of the field to scale.

Left Field – 320 ft  
Left Center – 418 ft  
Center Field – 402 ft

Right Field – 320 ft  
Right Center – 362 ft  
Distance between bases – 90 ft

Distance from pitcher’s mound (rubber) to home plate – 60 feet 6 inches

*Distances to outfield wall (Left Field, Left Center, Right Field, Right Center, and Center Field) are from home plate.

Research to determine how the field dimensions of Victory Field compare with other Minor League ballparks and Major League ballparks?

**Standard 6 – Data Analysis and Probability**

7.6.1 Analyze, interpret, and display data in appropriate bar, line, and circle graphs and stem-and-leaf plots, and justify the choice of display.

Survey students in your school, friends and family members to find out what day of the week they would prefer to attend a game at Victory Field. They may choose to attend Fireworks Fridays, Spectacular Saturdays, or Souvenir Sundays. To display the results, which would be more appropriate: a bar, line, or circle graph? Explain your answer.
7.6.2  Make predictions from statistical data.

Record the temperature and weather conditions (i.e. sunny, cloudy, windy, rainy) at noon each day for two weeks leading up to the Baseball in Education game that your class will attend. Use your results to predict the temperature and weather conditions for the game that you will attend.
Grade 7 Science

Standard 4 - The Living Environment

7.4.11 Explain that the amount of food energy (calories) a person requires varies with the body weight, age, sex, activity level, and natural body efficiency. Understand that regular exercise is important to maintain a healthy heart/lung system, good muscle tone, and strong bone structure.

Refer to the Indianapolis Indians Roster (Appendix Q) for a list of players and their height and weight. Discuss how the amount of food energy among the members of the baseball team will vary by comparing players’ heights and weights. How does the body weight, age, and activity level of a professional baseball player differ from that of a seventh-grader? Discuss how the diet and activity level of a professional baseball player will likely differ from that of a seventh-grader.

Standard 5 – The Mathematical World

7.5.4 Describe that the larger the sample, the more accurately it represents the whole. Understand, however, that any sample can be poorly chosen and this will make it unrepresentative of the whole.

In small groups, develop a list of questions that the Indians could use to survey fans at Victory Field to help them learn valuable information about the demographics of their fans and what they enjoy most about coming to the ballpark. After brainstorming potential survey questions, determine how many questions you should include in your survey and the minimum number of people who should be surveyed in order to get an accurate sample.
Grade 7 Social Studies

Standard 1 – History

7.1.17 Recognize historical perspective by identifying the historical context in which events occurred, and avoid evaluating the past solely in terms of present-day norms.

Use the Internet, baseball history books and reference guides, to research a major historical event and its impact on baseball. Possible topics include: The impact of the Great Depression on Baseball, Baseball during World War II, The History of the Negro Leagues, Women in Baseball, and Breaking the Color Barrier in Baseball. Present your research in the form of a written paper, video, newspaper article, or other multi-media project.

7.1.19 Analyze multiple perspectives on a current event relating to Africa, Asia, or the Southwest Pacific. Read and examine more than one account of the event and distinguish between statements of opinion and statements of fact.

Recognizing that baseball is considered “America’s Game” for a reason, research the history and current state of baseball in Africa, Asia and/or the Southwest Pacific. How is baseball similar and different in the United States? List players who are currently playing on a Major League Baseball team who came from Africa, Asia or the Southwest Pacific.

Standard 2 – Civics and Government

7.2.8 Assess the extent of democracy and observance of human rights in various African, Asian, and Southwest Pacific countries.

7.2.9 Use data gathered from a variety of information resources to research current political trends and events in African, Asian, and Southwest Pacific countries.

Use books, magazines, newspapers and the Internet to research life in Africa, Asia and/or the Southwest Pacific and compare it to life in the United States. What challenges would professional baseball players face if they chose to move from Africa, Asia or the Southwest Pacific to the United States to play baseball? In your opinion, in what ways would they prefer living in the United States? Besides the obvious, family and friends, what do you think they would miss most about leaving?
Grade 8 English / Language Arts

Standard 2 – READING: Comprehension

8.2.3 Find similarities and differences between texts in the treatment, amount of coverage, or organization of ideas.

Choose a current baseball topic that is being discussed in various local and national newspapers, magazines, and sports talk shows. Compare and contrast the way various media present the issue.

Standard 3 – READING: Literary Response and Analysis

8.3.1 Determine and articulate the relationship between the purposes and characteristics of different forms of poetry (including ballads, lyrics, couplets, epics, elegies, odes, and sonnets).

Ballad: a poem that tells a story
Lyric: words set to music
Couplet: two successive lines of verse that rhyme
Epic: a long poem that describes heroic deeds or adventures
Elegy: a mournful poem for the dead
Ode: a poem of praise
Sonnet: a rhymed poem of 14 lines

Compare the poem The New Kid by Mike Makley with the lyrics from Kenny Rogers’ The Greatest. List the similarities and differences in purpose and characteristics.

8.3.35 Identify and analyze recurring themes (such as good versus evil) that appear frequently across traditional and contemporary works.
Many well-known professional athletes are considered to be heroes by some. Choose a professional baseball player who may be regarded as a hero, possibilities include Jackie Robinson, Roberto Clemente, Cy Young, Mickey Mantle and Cal Ripken Jr., and read a biography written about this person’s life and career. Compare the characteristics, experiences, accomplishments, etc. of the baseball hero with those of your personal hero.

**Standard 5 – WRITING: Applications**

8.5.1 Write biographies, autobiographies, and short stories that:

Tell about an incident, event, or situation by using well-chosen details.

Reveal the significance of, or the writer’s attitude about, the subject.

Use narrative and descriptive strategies, including relevant dialogue, specific action, physical description, background description, and comparison or contrast of characters.

Write an autobiographical account of the Baseball in Education game that you attended with your class at Victory Field. Describe the day in detail so the reader can see and feel the experience from your perspective.
Grade 8 Mathematics

Standard 5 – Measurement

8.5.1 Convert common measurements for length, area, volume, weight, capacity, and time to equivalent measurements within the same system.

Convert the distance from the city of the Indians opponent (on the Baseball in Education game your class is going to attend) to Indianapolis from miles to yards, feet, and inches. Refer to Appendix K for a city to city mileage chart.

8.5.2 Solve simple problems involving rates and derived measurements for attributes such as velocity and density.

Determine how long it will take the visiting team to travel from their home city to Indianapolis at a rate of 60mph.

Record the distance (in miles) that your class traveled to Victory Field for the Baseball in Education game and the length of time it took to travel that distance. Figure the average speed that you traveled.

Standard 6 – Data Analysis and Probability

8.6.2 Identify different methods of selecting samples, analyzing the strengths and weaknesses of each method, and the possible bias in a sample or display.

Each baseball season, the Indians conduct surveys at Victory Field to gain feedback from their fans. Individually or in small groups, outline the way the Indians should organize their survey in order to get the most accurate results. Be sure to consider the minimum number of dates (and game times) the Indians should conduct the survey, the minimum number of surveys that should be completed, and the actual dates the surveys should be given.

Standard 7 – Problem Solving

8.7.1 Analyze problems by identifying relationships, telling relevant from irrelevant information, identifying missing information, sequencing and prioritizing information, and observing patterns.
The Indians have a 10-game road trip in July. They will play against Pawtucket in Indianapolis on July 18 at 2pm. They will travel to Charlotte for games on July 19 and 20, to Durham for games on July 21 and 22, to Richmond for games on July 23 and 24. Finally, the will go to Norfolk for four games on July 25 through the 28. The Indians will fly from Indianapolis to Charlotte and bus from city to city the remainder of the road trip. They will leave Norfolk after their game on July 28 and fly back to Indianapolis. How many miles will the team bus during this road trip (refer to Appendix K for a ground mileage chart)? Assuming the bus travels at 60mph, how much time will the team spend on the bus during this road trip?
Grade 8 Science

Standard 2 – Scientific Thinking

8.2.1 Estimate distances and travel times from maps and the actual size of objects from scale drawings.

Using a map of the United States, estimate the distance (in miles) from each International League (IL) city to the city of the team’s Major League Affiliate (MLA). Refer to Appendix E for a list of IL teams and their MLA. Which IL teams are closest to and farthest away from their MLA? Using the current IL cities and MLA cities listed in Appendix E, is it possible to realign the affiliations so that some or all of the IL cities are closer to their MLA?
Grade 8 Social Studies

Standard 1 – History

8.1.30 Form historical research questions and seek responses by analyzing primary resources—such as autobiographies, diaries, maps, photographs, letters, and government documents—and secondary resources, such as biographies and other non-fiction books and articles on the history of the United States.

As a class or in small groups, develop a list of questions concerning the history of baseball, “America’s Game.” Individually or in small groups, seek the answers to these questions through resources such as baseball history books, autobiographies, biographies, and the Internet. Refer to Appendix D for a list of Helpful Links and Appendix V for a list of Baseball Books. In what ways have major historical events influenced the game of baseball?

Standard 3 – Geography

8.3.2 Map and locate all states of the United States, major cities, mountain ranges, and river systems of the United States.

Refer to Appendix F for a list of Minor League Baseball Attendance Overall Rankings. Map and locate the states and cities that have a team ranked in the top 10 in overall attendance, and suggest reasons for their attendance success. Consider geographic location, size and population of city, economy, climate, other sports and entertainment options, etc.