

**educational curriculum materials:  
bringing baseball to the classroom**



**grand slam school day 2008  
middle school version  
answer key**

**This curriculum adheres to the Grade Level Content  
Expectations (GLCE) and is supported by the State of  
Michigan Board of Education.**

**2008 Grand Slam School Day**

# An Introduction to Grand Slam School Day!

Dear Teachers,

Get ready for Grand Slam School Day 2007 at Oldsmobile Park. Included in this educational packet are exercises that you can do with your class and some that can be completed at the ballpark to help get them excited about coming out to see a baseball game.

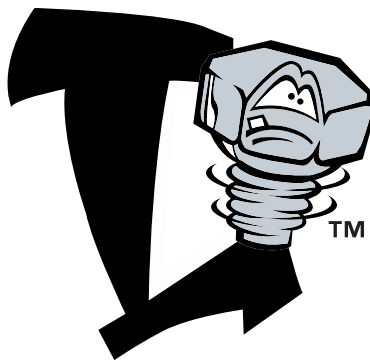
In the spirit of trying to make learning fun, you will see that each exercise not only concerns baseball, but also implements elements of common school subjects.

At the rear of this packet, you will find answer keys for those subjects that require them. Essay questions will require the students to provide their own answers.

Our hope is that your class not only enjoys completing the following pages, but that they will also learn some new facts about Lugnuts baseball. Any questions you may have regarding this packet or about Grand Slam School Day can be answered on our website, [www.lansinglugnuts.com](http://www.lansinglugnuts.com), where you will find a Grand Slam School Day link. This is also the place to check out pictures, send us e-mails, and find out everything there is to know about Grand Slam School Day.

Should you have any questions or concerns, please feel free to contact the Lugnuts office at 517-485-4500. Have fun together and GO NUTS!

P.S. The Lansing Lugnuts and MEA are working on a High School Educator Recognition Program that is student nominated. If you are interested in more details, please call Nick Grueser @ 517-485-4500 ext. 276.



2008 Grand Slam School Day

# Table of Contents

## Exercise One: Mathematics

- Baseball Statistics and Story Problems

## Exercise Two: English

- Reading Comprehension: Brian Dopirak Article
- Lansing Lugnuts Baseball Crossword

## Exercise Three: Science

- Earth / Space Sciences: Diagramming a Weather Forecast\*

## Exercise Four: Geography

- US Geography: The Midwest League
- What's In a Name?: Sports Team Nicknames

## Exercise Five: History

- Jackie Robinson: A Baseball Pioneer
- The All-American Girls Baseball League

\* These tasks must be completed at the ballpark.

# Teacher Exercise Instructions

The following problems are intended to test students' problem solving abilities. The story problems begin to teach them about important baseball statistics and show how each is calculated. This will give them a better understanding of a few of the baseball statistics they will see at the ball game, such as Earned Run Average and Batting Average.

**This packet accomplishes the following content standards from the Michigan Mathematics Grade Level Content Expectations:**

- N.FL.06.13: Solve word problems involving percentage in such contexts as sales tax and tips, and involving positive rational numbers.
- N.FL.06.15: Solve applied problems that use the four operations with appropriate decimal numbers.
- A.PA.06.01: Solve applied problems involving rates including speed, e.g., if a car is going 50 mph, how far will it go in 3.5 hours.
- A.FO.06.11: Relate simple linear equations with integer coefficients to particular contexts and solve. e.g.  $3x = 8$  or  $x + 5 = 10$ .
- A.FO.06.13: Understand that multiplying or dividing both sides of an equation by the same non-zero number creates a new equation that has the same solutions.
- N.MR.08.07: Understand percent increase and percent decrease in both sum and product form, e.g., 3% increase of a quantity  $x$  is  $x + .03x = 1.03x$ .
- N.MR.08.08: Solve problems involving percent increases and decreases.

# Baseball Statistics

How to compute baseball statistics...

**Batting Average:** Divide the number of hits by the number of at bats

**Earned Run Average(ERA):** Multiply the number of earned runs by nine and then divide that number by the number of innings pitched

**Slugging Percentage:** Divide the total bases (total bases, HR=4, 3B=3, 2B=2, 1B=1) of all safe hits by the total times at bat (at bats do not include walks, sacrifices, hit-by-pitch, or times awarded first base because of interference or obstruction).

**Fielding Average:** Divide the total putouts and assists by the total number of putouts, assists and errors

**On Base Percentage:** Divide the total number of hits, bases on balls and hit-by-pitch by the total of at bats, bases on balls, hit-by-pitch and sacrifice flies.

**Won/Loss Percentage:** Divide the number of games won by the number of games played.

**The Magic Number:** Determine the number of games yet to be played, add one and subtract the number of games ahead in the loss column of the standings from the closest opponent.

**Using the above information, compute the statistics for the scenarios on the following page.**

# Baseball Statistics and Story Problems

1. Lansing's Jason Armstrong was a 2005 Midwest League All-Star selection. He played a wide variety of positions. In all, he collected 131 putouts and 247 assists while committing 26 errors. What was Jason's fielding percentage for the 2005 season?

**.9356 or 93.56 %**

2. Luke Hetherington was a mainstay of the Lansing lineup in 2006. At one point, he reached base in 24 straight games. In all, the OF played in 91 games and collected a total of 293 at-bats. In those at-bats, he collected 87 hits, including 62 singles, 18 doubles, 2 triples and 5 home runs. What was Luke's slugging percentage for the 2006 campaign?

**.423 slugging percentage**

3. The 2006 Lugnuts featured the top slugging team in the league by blasting 98 home runs. In all, the team collected a total of 1,159 hits. Around all those hits, they managed to strike out 1,156 times. The strikeouts accounted for 25 percent of the total at-bats on the season, a total of 4,604. Knowing that, what was the Lugnuts team batting average for the 2006 season?

**.252 average**

4. In the 2006 campaign, Kristian Bell struck out 86 batters. The right-hander, who hailed from Alabama, worked in a total of 23 games. In those games, Bell worked a total of 128 innings while allowing a total of 59 total runs to score. However, his teammates weren't always on the top of their game, so only 53 of the 59 runs ended up being considered earned runs. What was Kristian's earned run average during the 2006 season?

**3.73 ERA**

5. The pennant race in the Midwest League's Western Division was down to the wire in 2005. Clinton, Wisconsin, Beloit and the Swing of the Quad Cities all had a shot to capture the crown. With just two weeks left in the season, only 14 games remained on the schedule and Clinton had a two game lead over Beloit. The teams matched up six times over the final 14 games of the season. What is Clinton's magic number to clinch the Western Division?

**13 games**

# Teacher Exercise Instructions

The following problems are intended to test students' English abilities. The stories will give them a better understanding of players and terms in baseball.

**This packet accomplishes the following content standards from the Michigan English Language Arts Grade Level Content Expectations:**

R.CM.03.02: Retell the story elements of grade level appropriate narrative text and major idea(s) of grade level appropriate informational text with relevant details.

W.SP.X.01: Spell frequently encountered words correctly.

# Reading Comprehension: Brian Dopirak

## DIAMOND DESTINATION

Lugnuts' first baseman finding the success that he's been trying for all his life

*By Mark Feather, Lansing State Journal*

Lansing Lugnuts first baseman Brian Dopirak can't think of professional baseball as a dream.

"Since I was a little kid, my goal was to be a major-league baseball player," Dopirak said. "A lot of people think of those things as dreams. Dreams are fantasies, they're out there. But I always set it as a goal. "Goals can be reached. They're something you can work for. Dreams are dreams."

Dopirak, 20, a second-round draft pick in 2002, is inching close to that goal in his second full year as a professional.

"He's turning out to be the player they thought he'd be," Baseball America Executive Editor Jim Callis said of Dopirak. "He's a power hitter and power is going to be his thing. "The Cubs have Derrek Lee there now and I don't see them rushing Brian through the minors.... He might be ready by mid-2007. I don't see him being ready before then."

It's true that the Cubs are in no hurry to push Dopirak through the minor-league system.

"I don't think we're ever in a hurry," said Oneri Fleita, the Cubs' director of player development. "Brian is inexperienced and I want him to experience success first and foremost."

Dopirak already has had some success in his short lived career.

Last year, he was selected as a Northwest League All Star in 52 games with Boise, prior to being promoted to finish the season with Lansing, where he was a pivotal player in the Lugnuts championship run.

He's back in Lansing for 2004 and started a Midwest League all-star campaign by hitting a league-high eight home runs. He's batting .265 with 19 RBI through 30 games.

"I don't know how much more we can ask of him," Fleita said. "He's off to a good start, playing every day and hitting the ball well."

Dopirak wasn't at all disappointed in returning to low single-A Lansing because he knew he would get his at-bats and felt comfortable with the Lugnuts coaching staff.

"These guys have their jobs for a reason," Dopirak said.

Dopirak attributes that relaxed, no-worries attitude to his parents, Allan and Penny.

"He's already accomplished everything we've wanted of him and that was to graduate high school and be the person that he is," said Allan Dopirak, who runs a charter fishing service along the west coast of Florida.

"He's happy and I told him when he's not happy playing baseball anymore, he'd better come home and go fishing. Baseball is supposed to be fun."

Dopirak's love for family, the ocean and baseball are represented by four colorful tattoos on his 6-foot-4, 235-pound upper-torso.

The top half of his right arm is decorated with a lion wearing a cross and thorns to represent courage and religion. The inside forearm bares a hammerhead shark and his shoulder blade a baseball player.

His parents' names are inscribed on a cross marking his left bicep and intertwined with a black dragon and ring of fire that cover his entire upper arm.

Dopirak's father was a major influence in the sport, signing him up at 9 years old and watching his son progress into a talented player. Dopirak eventually played summer AAU and in other leagues against older players in an effort to get better.

# Reading Comprehension: Brian Dopirak

"I was into traveling around with my mom and dad driving me all over the country. I loved it," Dopirak said. "My parents never put pressure on me and all I wanted was a shot, an opportunity to play baseball professionally."

Dopirak eventually got his chance-and his childhood friend to join him.

At 12, Dopirak started playing Little League with Ryan Harvey, the Cubs' 2003 first-round draft pick selected sixth overall.

The duo grew up and attended Dunedin (Fla.) High School, the same alma mater as Jim Hendry, the Cubs' vice president and general manager.

"I was a '73 grad, obviously not the player or prospect they are, but I'm proud of our Dunedin High School tradition," Hendry said.

"Brian and Ryan are obviously two very different types of players....Dopirak is more of your prototype right-hand hitting first baseman with a lot of power where Harvey is got to have a chance to have a little more versatility, running and playing the outfield. Harvey's also got some power potential, but it's hard to have much more power than Dopirak."

Harvey is playing for the Cubs' rookie league team in Mesa, Ariz.

Dopirak and Harvey never won a state title but, "We were a pretty solid lineup, I'll tell you that," Dopirak said.

The baseball buddies went undefeated with the Falcons until the semifinal game in Dopirak's senior year before falling out of the state tournament.

The Cubs pair of power-hitting prospects are now focused on a bigger championship, a World Series perhaps. It's a distant goal, but Dopirak has the essential tools to get there.

Dopirak has major-league power as a heavy-swinging first baseman with limited, but improving, range defensively. He's shown the capability to clobber 400-foot homers with the consciousness to slap singles to all areas of the field when needed.

"Brian tries to stay within himself," hitting coach Mike Miccucci said. "A lot of time you get young kids that have power and they try and hit it out every time. Brian's pretty smart. He holds out and knows when to cut his swing down."

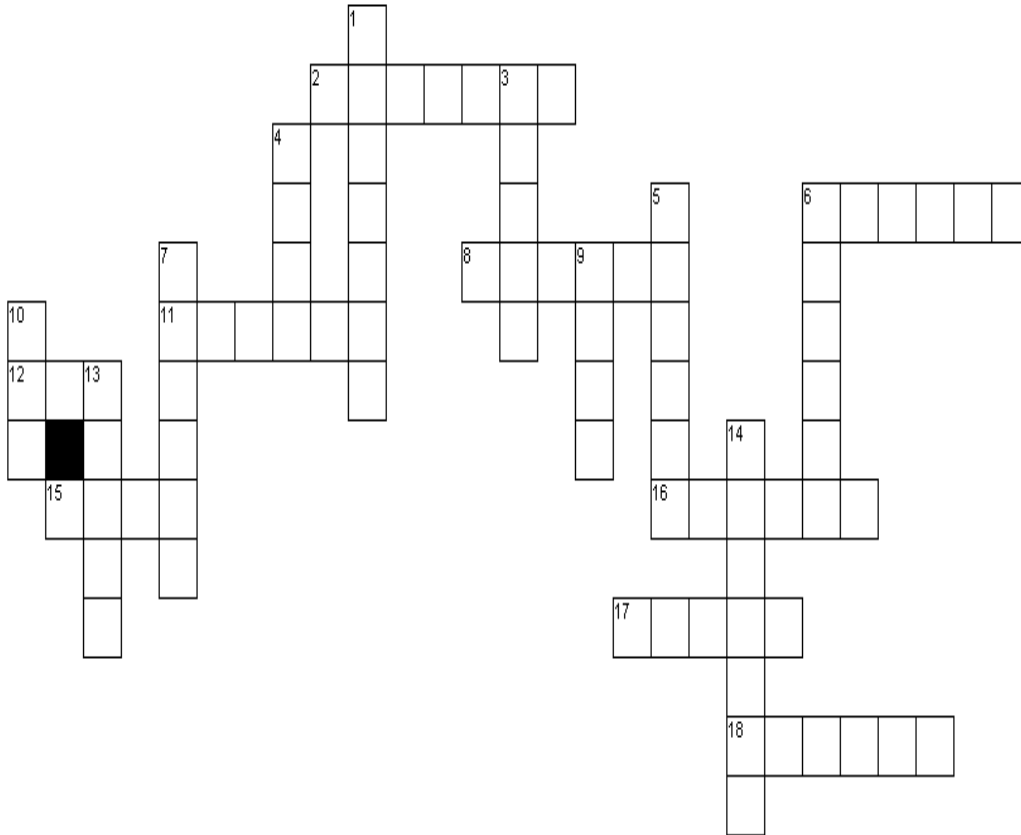
His off-the-field practices also merit big-league review.

"He's a happy-go-lucky guy," Lugnuts manager Julio Garcia said. "He's got the type of attitude that's always picking up people...I would say that he's one of the leaders on this team."

After reading the following article, please answer the following questions:

1. In what league was Brian selected for the All-Star team? Why doesn't he think of making the big leagues as a dream?
2. To whom does Brian give most of the credit to for his attitude?
3. What influences in your life have helped shape your attitude?

# Lansing Lugnuts Baseball Crossword



## Across

2. The player that sits behind home plate
6. A hit in which the batter reaches first base
8. A hit in which the batter reaches second base
11. A first year player
12. The Lugnuts' purple mascot \_\_\_\_\_ Lug
15. A pitch thrown outside the strike zone
16. A pitcher that comes in after a starting pitcher
17. An attempt to advance to the next base without the ball being hit
18. An official who adminsters the rules

- |                   |                   |
|-------------------|-------------------|
| 2. <i>Catcher</i> | 15. <i>Ball</i>   |
| 6. <i>Single</i>  | 16. <i>Relief</i> |
| 8. <i>Double</i>  | 17. <i>Steal</i>  |
| 11. <i>Rookie</i> | 18. <i>Umpire</i> |
| 12. <i>Big</i>    |                   |

## Down

1. The leader of the baseball team
3. A misplay by a fielder
4. Getting to first base as a result of the pitcher throwing four balls
5. One who sells items at a baseball game
6. A pitch that is delivered directly over the plate
7. A hit by which the batter reaches third base
9. To bat a ball so lightly it does not go out of the infield
10. Run batted in
13. \_\_\_\_\_ slam
14. The No. 4 hitter in a lineup

- |                   |                    |
|-------------------|--------------------|
| 1. <i>Manager</i> | 7. <i>Triple</i>   |
| 3. <i>Error</i>   | 9. <i>Bunt</i>     |
| 4. <i>Walk</i>    | 10. <i>RBI</i>     |
| 5. <i>Vendor</i>  | 13. <i>Grand</i>   |
| 6. <i>Strike</i>  | 14. <i>Cleanup</i> |

# Teacher Exercise Instructions

The following exercise requires students to study weather forecasts on television and the internet. They must record the weather in a number of different ways, including temperature, wind direction, and precipitation. Students must classify weather themselves three times a day and predict the weather for the following week.

**This packet accomplishes the following content standards from the Michigan Curriculum Framework Science Benchmarks:**

EAW.V.3-MS: Explain patterns of changing weather and how they are measured.

# Weather Forecasting

If you have lived in the state of Michigan for awhile, you understand that the weather can change really quickly. Many of the Lugnuts come from different states across the United States and are all used to different types of weather. Since a great majority of the players have never been to the Midwest before they are unsure what the weather will be like in the upcoming month when friends and family members come to visit.

Once again the Lugnuts players need your help. They want to be able to tell their guests what type of weather to expect when they come to Lansing the week of May 3-13, 2008. Starting with observations taken from today's game, collect weather data over the next ten days and prepare a "preview" of what the players' guests should expect. You may use the local newspaper, the internet([www.weather.com](http://www.weather.com) and [www.nwsnorman.noaa.gov/severewx/safety.html](http://www.nwsnorman.noaa.gov/severewx/safety.html)) and visual observations to complete this task.

Using the above resources, chart the weather patterns for the time period of May 3rd (depending on when your school attends Grand Slam School Day) through May 13th. Take visual observations of the weather three times each day and using the newspaper and internet, determine the day's high and low temperatures. Record this information into a chart and track the changes in temperature. Create a chart that illustrates each day's weather trends such as: high temperature, low temperature, wind direction, and description of the day in words at three different times during the day.

Meteorologists will often try and "predict" what the weather will be like. Using the internet website listed above, check their work and describe any differences you see in your forecast from what was predicted will happen.

Using the severe weather website, gather information regarding safety measures related to any severe weather that the players guests may have to account for during their stay. Since you have lived in Michigan before, think about the kinds of severe weather you have had to deal with during this part of the year.

Finally, using the week long weather chart determine what the average day should be like and describe what they can expect to be able to do during their stay besides watching their friends play baseball.

# Teacher Exercise Instructions

The following exercise requires students to study locations of cities within the United States to familiarize them with the Midwest League. An encyclopedia, atlas, and the internet will be helpful in finding these answers.

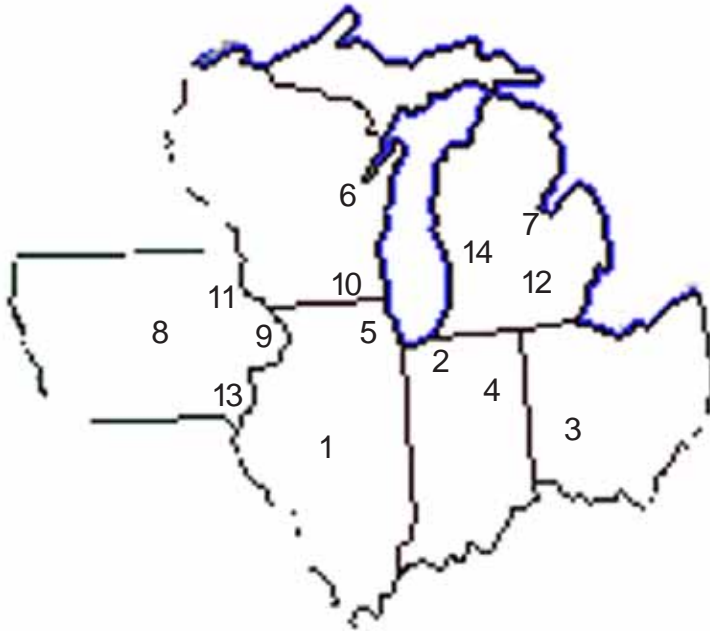
**This packet accomplishes the following content standards from the Michigan Curriculum Social Studies Benchmarks:**

Standard V.1 Information Processing: All students will acquire information from books, maps, newspapers, data sets, and other sources, organize and present the information in maps, graphs, charts, and time lines, interpret the meaning and significance of the information, and use a variety of electronic technologies to assist in accessing and managing information.

Standard II.4 Regions, Patterns, and Processes - LE 4: Describe the physical, economic, and cultural geography of Michigan and its causes, advantages, and disadvantages.

# Geography: The Midwest League

The Lugnuts are one of 14 teams in the Midwest League. The League is comprised of teams from the states of Iowa, Wisconsin, Illinois, Indiana, Ohio, and Michigan. Below is a map of these six states. Test your geography skills and match the number with the team below.



- 10 Beloit Snappers
- 4 Fort Wayne Wizards
- 11 Burlington Bees
- 5 Kane County Cougars
- 14 West Michigan Whitecaps
- 8 Cedar Rapidsernels
- 7 Great Lakes Loons
- 9 Swing of the Quad Cities
- 6 Wisconsin Timber Rattlers
- 12 Lansing Lugnuts
- 1 Peoria Chiefs
- 3 Dayton Dragons
- 2 South Bend Silverhawks
- 13 Clinton LumberKings

**Thought that was easy? Try these out!**

1. Identify the capitals of each state and circle the teams in capital cities.
2. Use the Internet to identify the population of each metropolitan city that has a team.
3. Calculate the distance between Lansing and each of the cities in the Midwest League.
4. What is the furthest distance to travel in the league for teams to play each other?

Use an atlas or the Internet, i.e. Mapquest, to aid in your research

# What's In A Name? Sports Team Nicknames

If you look at most sports team nicknames, you will be able to identify some trends. Most team nicknames tend to be based off three different categories: geography, culture and economics.

When the Lugnugs first came to town, they didn't have a name yet. They decided to let the people of Lansing choose by having a contest. Many people entered their ideas, but the winning nickname turned out to be Lugnugs. Do you think the nickname Lugnugs was good for a team in Lansing?

Of the above three categories mentioned, which do you think the nickname Lugnugs would fall under?

In the following exercise, select two sports teams for each category

Examples:

Geography - Colorado Rockies

Economics - Detroit Pistons

Culture - Baltimore Ravens

Geography: \_\_\_\_\_

Economics: \_\_\_\_\_

Culture: \_\_\_\_\_

# Teacher Exercise Instructions

The following exercises require students to consider two events that had a major social impact on the game of baseball and the culture of America.

**This packet accomplishes the following content standards from the Michigan English Language Arts Grade Level Content Expectations:**

- R.CM.07.01: Connect personal knowledge, experience, and understanding of the world to themes and perspectives in text.
- R.IT.07.01: Analyze elements and style of informational genre (biography).
- W.GN.08.02: Write an historical expository piece (e.g. simulated memoir)
- W.PS.08.01: Exhibit individual style to enhance the written message.

**This packet accomplishes the following content standards from the Michigan Curriculum Framework Social Studies Benchmarks:**

- Standard I.2 Comprehending the Past - ME 4: Use historical biographies to explain how events from the past affected the lives of individuals and how some individuals influenced the course of history.
- Standard I.3 Analyzing and Comprehending the Past - LE 3: Compose simple narratives of events from the history of the state of Michigan and the United States.





# The Grand Slam School Day Scoop

Have questions about Grand Slam School Day? All the answers you need and lots of other great information is just a click away! Check out [www.lansinglugnuts.com](http://www.lansinglugnuts.com) for all the latest info on GSSD. Click on the link called Grand Slam School Day information, located on our home page, and then the rest is up to you! Here are some elements you'll find to assist you:

## ***For the teachers...***

- " **Necessary event information:** including times, dates, ticket prices, lunch info.
- " **Contacts:** who to call about your trip to Oldsmobile Park.
- " **E-mail:** a chance to e-mail questions such as "Where does the bus park?"
- " **Educational Materials:** the opportunity to download this educational packet that was sent to schools in an effort to bring baseball to the classroom.
- " **Photos:** look at the fun from other Grand Slam School Days.

## ***For the students...***

- " **Who will be there:** check out which other schools will be attending GSSD the day your school is there.
- " **What to bring:** helpful reminders about what not to forget
- " **Other activities:** besides a baseball game, there will be other events going on you may want to tune into.
- " **Jr. Press:** after the game students will write articles about what they saw and learned from talking with players. If you are not a part of Jr. Press, but would still like to submit a story, this is the place for you.
- " **Photos:** look at the fun from other Grand Slam School Days.