



CLASSROOM ACTIVITY

**Behind the Scenes of Country
Music's Biggest Night™**

**The Math Behind
the Music**

**LESSON
OBJECTIVES**

Students will be able to:

- Build a data set of the nominees and winners for various categories of the CMA Awards.
- Analyze data to identify patterns and posit trends.
- Create visuals to show the relationships between data and communicate their findings.

GRADE RANGE

6–12

DURATION

1–2 class periods of 45–60 minutes each

LESSON OVERVIEW

From sports stats to Pokémon cards, students are intrigued with mathematics and statistics, but often this passion does not cross over to the classroom. This activity gives students an opportunity to dive into the “stats” of Country Music as they extend their learning from the Virtual Field Trip. **Educators will be asked to collaborate with their math teacher to showcase mathematical possibilities and make complex statistical concepts more accessible.*

Take students' learning further by giving them the opportunity to decide the best way to present their findings. Have them consider platforms that they find engaging and fun. Should they create Country Music Star Cards? Students would design and produce trading cards highlighting stats on celebrities, songs, or awards categories. If students enjoy reading materials from *Ripley's Believe it or Not* or *The Guinness Book of World Records*, they might want to collaborate and “write the book” on Country Music. If students enjoy music videos they could create their own “Pop Up Videos” to make statistics accessible to their peers while they enjoy the best music videos, of Country Music. This lesson guides educators to empower their students with choice, while drawing on their creativity and individual talents...all while learning math!

DRIVING QUESTION

How can students use their knowledge of mathematics and statistics to analyze the distribution of the CMA Awards and represent their findings graphically so other students can visualize them and better understand the history and impact of the CMA Awards?

NATIONAL CONTENT STANDARDS

Common Core State Standards

Ratios and Proportional Relationships:

- Use ratio and rate reasoning to solve real-world and mathematical problems, e.g., by reasoning about tables of equivalent ratios, tape diagrams, double number line diagrams, or equations.
- Find a percent of a quantity as a rate per 100 (e.g., 30% of a quantity means 30/100 times the quantity); solve problems involving finding the whole, given a part and the percent.

Statistics and Probability

- Recognize a statistical question as one that anticipates variability in the data related to the question and accounts for it in the answers. For example, "How old am I?" is not a statistical question, but "How old are the students in my school?" is a statistical question because one anticipates variability in students' ages.
- Display numerical data in plots on a number line, including dot plots, histograms, and box plots.
- Summarize numerical data sets in relation to their context.

Framework for 21ST-Century Learning Skills

Critical Thinking and Problem Solving: Reason Effectively

Interpret information and draw conclusions based on the best analysis.

National Coalition for Core Arts Standards

Re9.1.7a Select from teacher-provided criteria to evaluate musical works or performances.

8.1.2 Demonstrate knowledge of music concepts and how they support creators'/performers' expressive intent.

BACKGROUND INFORMATION

The Country Music Association has honored musical excellence through their CMA Awards show for 55 years, since it began in 1967, by giving awards in 10 different categories. During that initial awards ceremony, those 10 awards were won by eight different artists or groups. The show was untelevised. Since then, the CMA Awards have grown to be the highlight of the year for Country Music, garnering tens of millions of viewers all around the globe and attracting the attention of celebrities, artists, and dignitaries. The CMA Awards winners in 12 distinct categories for work produced during that year, along with two achievement awards for an artist's cumulative work and impact on Country Music.

This activity gives students the opportunity to analyze the Math Behind the Music and see how probability and statistics play a role in telling the story of Country Music. Students will need to draw on their knowledge of collecting and analyzing data, calculating percentages and ratios, and presenting mathematical data in visually pleasing and informative graphs.

The Country Music Association website has a wealth of information for students. It has a searchable database of [Past Winners and Nominees](#) that students can use to collect data for their statistical analyses. If your students have a background in creating and manipulating spreadsheets, the Lesson Extension gives students the opportunity to compile their own data and use it to calculate statistics and create graphs automatically.

Statistics and Probability

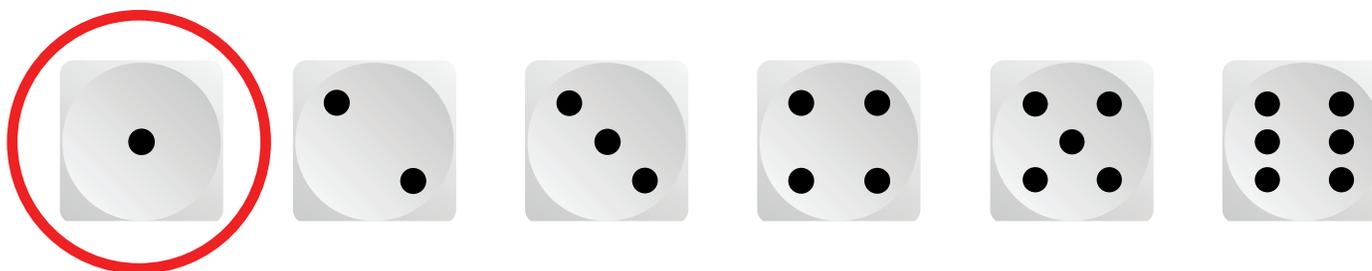
Throughout this activity, students will be reviewing and utilizing their understanding of statistics and probability. Students should be familiar with the following concepts:

- **statistic**—a fact or a piece of data from a large set of numerical information
- **probability**—the extent to which something is likely to happen, also referred to as the “odds” of something happening
- **percent**—the rate or number of an occurrence out of 100

In the Engage activity, students will be playing with probability by using a variation of a classic dice game. Students will be asked to calculate the odds of rolling a specific number on one die and also of rolling doubles. They'll use this knowledge to play the game of chance and decide when and if to risk winning in order to gain a larger reward.

Calculating the odds of rolling a specific number on a die in a fair roll game is simple:

- There are six sides on each die, each with a unique number.
- This means that every time someone rolls the die, there are six possible outcomes.
- So the odds or probability of rolling a specific number on a single roll is one out of six possibilities, or $1/6$.



Rolling one die one time gives a simple and straightforward way of calculating probability. No matter how many times a person rolls, their chances of getting a specific number are always going to be one out of six.

Calculating the probability of a specific set of results on a specific number of rolls becomes much more complex. For example, if students need to know the odds of rolling “doubles” or two of the same number, they often run into difficulty. Students can sometimes be tempted to ADD the probabilities of each die rolling a specific number, when in fact they will need to MULTIPLY.

- As was previously determined, the odds of rolling a specific number on die #1 is $1/6$.
- The probability of separately rolling that same number on die #2 is also $1/6$.
- But if we want to know the odds of rolling the same number on BOTH dice, we multiply the two.
- $1/6 \times 1/6 = 1/36$
- There are 36 different combinations of dice possible on each roll, and only one of those combinations is two of the chosen number.

Throughout this activity, students will also be asked to analyze the data from the CMA Past Winners and Nominees and calculate various percentages. Students will need to recall their knowledge of percentages and how those statistics can be visually displayed in graphs.

Calculating a percentage is a versatile and infinitely useful mathematical skill for students. They likely use percentages all the time in their daily lives, especially if they are sports fans or trading card game enthusiasts!

A percentage is essentially the part divided by the whole. It gives information about the makeup of different statistics and can be useful in showing trends. Displayed in a pie chart, percentages are a great way for students to get a visual perspective of a set of statistics.

For example, if a student wanted to know how many of 2014’s CMA Awards went to Miranda Lambert, they would see by searching the database that she won four separate awards that year. This data by itself isn’t very descriptive. It doesn’t really show the impact of Miranda Lambert’s influence on Country Music for that year. But if we compare her wins to the total possible awards, we get a very different picture.

- We can see from the database that Miranda Lambert won four out of 12 possible yearly awards in 2014.
- To find out the percentage of awards she won, we would divide $4/12$ to get 33.33%.

Out of all the dozens of people nominated for awards, Miranda Lambert won a third of them! That tells a very different story than simply saying she won four awards that year. Students will use this understanding of how statistics can be used to tell a story as they explore the history of the CMA Awards.

KEY VOCABULARY

- statistic
- probability
- percent
- data
- odds
- database
- spreadsheet

MATERIALS

- Laptop or device connected to the internet
- Access to graphic editing or presentation software like Canva, Google Slides, Keynote, or PowerPoint
- Dice (2 per group) or an online dice replicator
- Access to spreadsheet software like Numbers, Google Sheets, or Excel
- "MUSIC" probability score sheets
- Challenge cards
- Pencils or pens
- Scratch paper (or white boards with markers)

TEACHER PREPARATION

- Ensure students have a device connected to the internet.
- Prepare one copy of the score sheet per student and two die per group for the "MUSIC" probability game.
- Print and cut out challenge cards. Arrange them in stations around the room.

SESSION FLOW

ENGAGE

Games are one of the best ways to engage students, review concepts, and introduce a new lesson. Math concepts like probability and statistics are especially suited to games of chance. This game is based on a classic dice game called "SKUNK," and is the perfect way to introduce this activity highlighting "The Math Behind the Music" of the CMA Awards.

- Arrange your class into groups of two to four students, and make sure each group has a pair of dice or access to an online dice simulator.

Teacher note: *Free online templates for creating paper dice is another option for this activity.*

- Give each student a copy of the *Music Score* capture sheet, and make sure they have a pencil or pen.
- Demonstrate how to play the game by doing a practice round for the class.
- Rules of play:
 - The goal of the game is to collect the most points over five rounds of play.
 - The first student to play will roll the dice. They will record the total number rolled on the dice under the "M" column of their scoring sheet.
 - Then the student will need to decide if they want to roll again. This is where the probability and risk aspect of the game comes into play. Rolling again would allow them to add points to this round of play. But they also risk losing points!
 - Rolling a "1" on either die results in losing all the points from that round.
 - Rolling a "1" on both dice, otherwise known as "snake eyes," results in losing ALL points from this round and any previous rounds.

- The next player gets a turn and play rotates around the group in a clockwise manner.
- Once all players have taken a turn, the first round is over. They will play five total rounds, recording their scores under each column of the score sheet "MUSIC."
- The student at the end of the five rounds with the most points is the winner.
- After students finish playing, discuss the elements of risk and probability in the game.
 - What were the odds of rolling a "1" on one of the dice to lose points for that round?
 - What were the odds of rolling two "1s" on the dice (snake eyes) to lose points for the entire game so far?
 - Was it worth the risk to roll again?
 - How many people in the class rolled a "1"? How many people rolled two "1s"?
- Connect back to the CMA Awards Virtual Field Trip that they viewed. Open a class discussion about the awards and the odds of winning an award. Remind students that each awards category has five nominees.
 - If the winning of the award worked the same way as a fair-play dice game, what would be the odds of a nominee winning?
 - Are the awards the same as a fair-play dice game?
 - What other factors contribute to whether a nominee wins an award or not?

EXPLORE

While the winning of a CMA Award cannot be boiled down to mere probability, there are statistics that can be gathered to show patterns and trends in the distribution of awards. Students will use their mathematical abilities to explore these statistics and illustrate these patterns by working through this group of challenge cards.

Challenge cards incorporate real data from CMA Awards history found on the [Past Nominees and Winners](#) website. They give students the opportunity to review mathematical concepts and apply them to real-world situations.

- Arrange your class into groups of two to four students, and make sure each group has scrap paper and pencils to work out their answers.
- Direct students to work their way around the classroom, completing the challenge cards you previously set out in stations.
- Students will calculate percentages and ratios based on the winner and nominee information provided on the card.

Other options for using challenge cards in class:

- Use challenge cards as a bell-ringer or warm-up activity at the beginning of class to engage students.
- Lay out the cards in a 5x5 grid and have students take turns selecting a card. Direct students to complete the problem on the card. If they answer correctly, they get to keep the card. The student with the most cards at the end is the winner.
- Divide the class into two teams. Have them "face-off" and compete to answer questions and earn points for their teams. Call one student from each team to the front and give them a challenge card. The student who first answers correctly wins a point for their team. Work your way through the teams until all students have had a chance to play.
- Use challenge cards as an exit ticket at the end of class to assess learning.

INVESTIGATE AND CREATE

The culminating project for this activity requires students to use their research skills and their knowledge of probability and statistics to create an appealing and informative graphic. Students will have the option of creating a trading card, "Believe it or Not," fun facts style page, or pop-up video to make their knowledge of Country Music and statistics accessible and fun to their peers.

One of the best things about this project is that it is very flexible, and gives plenty of opportunities for student choice and differentiation to accommodate your students' learning needs. Students will have the chance to select both their topic of research and their final product. You may have students work in small groups or individually.

- Guide students through exploring the CMA Awards [Past Nominees and Winners](#) website. The site is a database that give all the winners and nominees for each category of the CMA Awards since they began in 1967. Encourage students to look for repeat winners or songs or artists that won in multiple categories for that year. They might also notice artists or songs that are familiar or significant to them.
- Either in small groups or individually, have students select an artist, song, or awards category to research more fully.
- Direct students to use the CMA Awards website and any other credible source to research their chosen topic and find background information, interesting facts, and data to calculate statistics.
- Remind students to cite their research.
- Have students select a product that will best suit the information they collected and the topic they choose: a trading card, fun facts page, or pop-up video.
- Students will use graphic creation software like Canva, PowerPoint, Keynote, or Google Slides to design their products. Make sure that students follow Fair Use and citation guidelines for any images, video, or sound they use.
- Products should visually display interesting facts, details, and statistics about their topic. Each one should also include at least one graph that represents data collected from the CMA Awards website. Students should consider what data they would like to present, and what type of graph would best convey the information. For example, they might choose a pie chart if they are representing percentages or a line graph if they are showing quantities over time.

Reflection

Bring this activity to a close by guiding students to reflect on what they've learned about how statistics can be applied to everyday life. Students will have seen that math really does permeate the Country Music industry. Just like a writer uses descriptive words to craft a story, data and statistics can be used to tell the story of an artist, an album, or even Country Music as a whole. As fans, we are engaged and excited by statistics. They help us keep track of our favorite artists and allow us to interact with their world.

Have students consider their experience with this activity and answer one or more of the following reflection questions. You might choose to have them answer in a journal, on a class discussion board, on an online sticky note board like Padlet, or even on posters or boards spread throughout the room. These questions also work great in a Think-Pair-Share discussion format where students have time to think on their own, share with a partner, and then share with the class as a whole.

- How do mathematics help tell the story of an artist or a music genre?
- Are statistics always "reliable"? Is the story they help tell always an absolute truth? If not, how can a fan be sure the statistics they see are fair and unbiased?
- Other than performance statistics, in what ways does math influence the Country Music industry?

LESSON EXTENSION

While the CMA Awards website does have a searchable database of past nominees and winners, this is the perfect opportunity for students to learn to create their own! Use Google Sheets, Excel, or Numbers to have your students compile data into a spreadsheet that they can manipulate to find the information they need. Students can learn to sort and filter data as they conduct their research for their products. One of the best features of these programs is their ability to create graphs that display selected data from the spreadsheet. Students can use their knowledge of manipulating spreadsheets to create graphics for their trading cards, videos, or book pages so that they do not need to create them manually.

MUSIC LESSON CONNECTION

Consider connecting with a Music Educator for this lesson extension.

Have students identify the form of a song and determine the length of verse to chorus. Examples include:

- The 2020 CMA Song of the Year: "The Bones" by Meron Morris is an ABABAB format song. The verse and the chorus each have eight measures.
- The 2017 CMA Song of the Year: "Better Man" by Little Big Town (written by Taylor Swift) is in the form ABCABCDBB. The verse is 8 measures, the "pre-chorus" is 4 measures, the chorus is 9 measures, and there is a bridge that is twelve measures.

Music Score Sheet

How to Play: Each player will take turns rolling the dice and collecting points over five rounds. Record your points on this score sheet for each round. The game is over when you've completed all the rounds and spelled "MUSIC." The winner is the player with the most points! However, there is always a catch! It is possible to lose points if you roll a "1," so pay attention to the probability of rolling a "1" and plan your game to earn the greatest number of points for the least amount of risk.

When it's your turn:

- Roll the two dice.
- Add the total of the two dice together and record your points on the score sheet under the appropriate column. (Round 1 is under the "M," Round 2 is under the "U," etc.)
- Now you get to make a choice: end your turn now with the points you have or roll again.
 - If both your dice turn up any number from 2-6, congratulations! Your risk paid off and you get to add those points to this round's column!
 - If EITHER of your dice turns up a "1," you lose all the points from this round.
 - If BOTH of your dice turn up a "1," you lose all the points in the game you've earned so far!
- Now your turn is over and it's the next person's opportunity to play.
- Once everyone in your group has played, that's the end of the round. Move on to the next one until you've filled in your score sheet.

M	U	S	I	C

Challenge Cards

Cut out these cards and use as challenges for stations, questions for a game, a bellringer, or an exit-ticket. See the Activity Procedures for details about ways to use these with your class.

<p>Listed below are all the winners of Female Vocalist of the Year. Create a graph to show the number of awards for Female Vocalist of the Year for each winner of this category.</p> <p>LORETTA LYNN 1967, 1972, 1973 TAMMY WYNETTE 1968, 1969, 1970 LYNN ANDERSON 1971 OLIVIA NEWTON-JOHN 1974 DOLLY PARTON 1975, 1976 CRYSTAL GAYLE 1977, 1978 BARBARA MANDRELL 1979, 1981 EMMYLOU HARRIS 1980 JANIE FRICKE 1982, 1983 REBA MCENTIRE 1984, 1985, 1986, 1987 K.T. OSLIN 1988 KATHY MATTEA 1989, 1990 TANYA TUCKER 1991 MARY CHAPIN CARPENTER 1992, 1993 PAM TILLIS 1994</p> <p>ALISON KRAUSS 1995 PATTY LOVELESS 1996 TRISHA YEARWOOD 1997, 1998 MARTINA MCBRIDE 1999, 2002, 2003, 2004 FAITH HILL 2000 LEE ANN WOMACK 2001 GRETCHEN WILSON 2005 CARRIE UNDERWOOD 2006, 2007, 2008, 2016, 2018 TAYLOR SWIFT 2009 MIRANDA LAMBERT 2010, 2011, 2012, 2013, 2014, 2015, 2017 KACEY MUSGRAVES 2019 MAREN MORRIS 2020 CARLY PEARCE 2021</p>	<p>Listed below are all the winners of Female Vocalist of the Year. Create a pie chart showing the percentage of total wins that went to each artist.</p> <p>LORETTA LYNN 1967, 1972, 1973 TAMMY WYNETTE 1968, 1969, 1970 LYNN ANDERSON 1971 OLIVIA NEWTON-JOHN 1974 DOLLY PARTON 1975, 1976 CRYSTAL GAYLE 1977, 1978 BARBARA MANDRELL 1979, 1981 EMMYLOU HARRIS 1980 JANIE FRICKE 1982, 1983 REBA MCENTIRE 1984, 1985, 1986, 1987 K.T. OSLIN 1988 KATHY MATTEA 1989, 1990 TANYA TUCKER 1991 MARY CHAPIN CARPENTER 1992, 1993 PAM TILLIS 1994</p> <p>ALISON KRAUSS 1995 PATTY LOVELESS 1996 TRISHA YEARWOOD 1997, 1998 MARTINA MCBRIDE 1999, 2002, 2003, 2004 FAITH HILL 2000 LEE ANN WOMACK 2001 GRETCHEN WILSON 2005 CARRIE UNDERWOOD 2006, 2007, 2008, 2016, 2018 TAYLOR SWIFT 2009 MIRANDA LAMBERT 2010, 2011, 2012, 2013, 2014, 2015, 2017 KACEY MUSGRAVES 2019 MAREN MORRIS 2020 CARLY PEARCE 2021</p>
<p>Listed below are all the winners of Female Vocalist of the Year. What are the chances of a winner getting the award at least twice? Three times? Four times or more?</p> <p>LORETTA LYNN 1967, 1972, 1973 TAMMY WYNETTE 1968, 1969, 1970 LYNN ANDERSON 1971 OLIVIA NEWTON-JOHN 1974 DOLLY PARTON 1975, 1976 CRYSTAL GAYLE 1977, 1978 BARBARA MANDRELL 1979, 1981 EMMYLOU HARRIS 1980 JANIE FRICKE 1982, 1983 REBA MCENTIRE 1984, 1985, 1986, 1987 K.T. OSLIN 1988 KATHY MATTEA 1989, 1990 TANYA TUCKER 1991 MARY CHAPIN CARPENTER 1992, 1993 PAM TILLIS 1994</p> <p>ALISON KRAUSS 1995 PATTY LOVELESS 1996 TRISHA YEARWOOD 1997, 1998 MARTINA MCBRIDE 1999, 2002, 2003, 2004 FAITH HILL 2000 LEE ANN WOMACK 2001 GRETCHEN WILSON 2005 CARRIE UNDERWOOD 2006, 2007, 2008, 2016, 2018 TAYLOR SWIFT 2009 MIRANDA LAMBERT 2010, 2011, 2012, 2013, 2014, 2015, 2017 KACEY MUSGRAVES 2019 MAREN MORRIS 2020 CARLY PEARCE 2021</p>	<p>Listed below are all the winners of Male Vocalist of the Year. Create a graph to show the number of awards for Male Vocalist of the Year for each winner of this category.</p> <p>JACK GREENE 1967 GLEN CAMPBELL 1968 JOHNNY CASH 1969 MERLE HAGGARD 1979 CHARLEY PRIDE 1971, 1972 CHARLIE RICH 1973 RONNIE MILSAP 1974, 1976 WAYLON JENNINGS 1975 DON WILLIAMS 1978 KENNY ROGERS 1979 GEORGE JONES 1980, 1981 RICKY SKAGGS 1982 LEE GREENWOOD 1983, 1984 GEORGE STRAIT 1985, 1986, 1996, 1997, 1998</p> <p>RANDY TRAVIS 1987, 1988 RICKY VAN SHELTON 1989 CLINT BLACK 1990 VINCE GILL 1991, 1992, 1993, 1994, 1995 TIM MCGRAW 1999, 2000 TOBY KEITH 2001 ALAN JACKSON 2002, 2003 KEITH URBAN 2004, 2005, 2006 BRAD PAISLEY 2007, 2008, 2009 BLAKE SHELTON 2010, 2011, 2012, 2013, 2014 CHRIS STAPLETON 2015, 2016, 2017, 2018, 2021 LUKE COMBS 2019, 2020</p>

Listed below are all the winners of Male Vocalist of the Year. Create a pie chart showing the percentage of total wins that went to each artist.

- | | |
|---|---|
| JACK GREENE 1967 | RICKY VAN SHELTON 1989 |
| GLEN CAMPBELL 1968 | CLINT BLACK 1990 |
| JOHNNY CASH 1969 | VINCE GILL 1991, 1992, 1993, 1994, 1995 |
| MERLE HAGGARD 1979 | TIM MCGRAW 1999, 2000 |
| CHARLEY PRIDE 1971, 1972 | TOBY KEITH 2001 |
| CHARLIE RICH 1973 | ALAN JACKSON 2002, 2003 |
| RONNIE MILSAP 1974, 1976 | KEITH URBAN 2004, 2005, 2006 |
| WAYLON JENNINGS 1975 | BRAD PAISLEY 2007, 2008, 2009 |
| DON WILLIAMS 1978 | BLAKE SHELTON 2010, 2011, 2012, 2013, 2014 |
| KENNY ROGERS 1979 | CHRIS STAPLETON 2015, 2016, 2017, 2018, 2021 |
| GEORGE JONES 1980, 1981 | LUKE COMBS 2019, 2020 |
| RICKY SKAGGS 1982 | |
| LEE GREENWOOD 1983, 1984 | |
| GEORGE STRAIT 1985, 1986, 1996, 1997, 1998 | |
| RANDY TRAVIS 1987, 1988 | |

Listed below are all the winners of Male Vocalist of the Year. What are the chances of a winner getting the award at least twice? Three times? Four times or more?

- | | |
|---|---|
| JACK GREENE 1967 | RICKY VAN SHELTON 1989 |
| GLEN CAMPBELL 1968 | CLINT BLACK 1990 |
| JOHNNY CASH 1969 | VINCE GILL 1991, 1992, 1993, 1994, 1995 |
| MERLE HAGGARD 1979 | TIM MCGRAW 1999, 2000 |
| CHARLEY PRIDE 1971, 1972 | TOBY KEITH 2001 |
| CHARLIE RICH 1973 | ALAN JACKSON 2002, 2003 |
| RONNIE MILSAP 1974, 1976 | KEITH URBAN 2004, 2005, 2006 |
| WAYLON JENNINGS 1975 | BRAD PAISLEY 2007, 2008, 2009 |
| DON WILLIAMS 1978 | BLAKE SHELTON 2010, 2011, 2012, 2013, 2014 |
| KENNY ROGERS 1979 | CHRIS STAPLETON 2015, 2016, 2017, 2018, 2021 |
| GEORGE JONES 1980, 1981 | LUKE COMBS 2019, 2020 |
| RICKY SKAGGS 1982 | |
| LEE GREENWOOD 1983, 1984 | |
| GEORGE STRAIT 1985, 1986, 1996, 1997, 1998 | |
| RANDY TRAVIS 1987, 1988 | |

Scan the QR Code below or navigate the CMA Awards website to find the Top CMA Award Winners by Most Wins list. What percentage of winners have earned more than five awards in their career so far? Of those people, what percentage have earned more than 10?



<https://cmaawards.com/wp-content/uploads/2021/11/CMA-Awards-Winners-by-Most-Wins-as-of-11-11-2021.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the Top CMA Award Winners by Most Wins list. Out of the people who won 10 or more awards, what percentage were women or women-led groups?



<https://cmaawards.com/wp-content/uploads/2021/11/CMA-Awards-Winners-by-Most-Wins-as-of-11-11-2021.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the Top CMA Award Winners by Most Wins list. What percentage of the wins were awarded to the duo Brooks and Dunn OR Ronnie Dunn alone?



<https://cmaawards.com/wp-content/uploads/2021/11/CMA-Awards-Winners-by-Most-Wins-as-of-11-11-2021.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the Top CMA Award Winners by Most Wins list. Out of the people who won five or more awards, what percentage were women or women-led groups?



<https://cmaawards.com/wp-content/uploads/2021/11/CMA-Awards-Winners-by-Most-Wins-as-of-11-11-2021.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the CMA Awards by Nominations List. Find the entries for legendary Country Music artist Johnny Cash. Create a pie chart depicting the percentage of his nominations that resulted in wins. What is his "batting" average or ratio of wins to total nominations?



<https://cmaawards.com/wp-content/uploads/2022/09/CMA-Awards-By-Most-Nominations-9.7.22.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the CMA Awards by Nominations List. Find the entries for Miranda Lambert, the most decorated female solo artist in CMA history. Create a pie chart depicting the percentage of her nominations that resulted in wins. What is her "batting" average or ratio of wins to total nominations?



<https://cmaawards.com/wp-content/uploads/2022/09/CMA-Awards-By-Most-Nominations-9.7.22.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the CMA Awards by Nominations List. Find the entries for one of the most awarded Country Music Duos in history, Brooks and Dunn. Create a pie chart depicting the percentage of their nominations that resulted in wins. What is their "batting" average or ratio of wins to total nominations? For an extra challenge, add in Ronnie Dunn's solo awards as well.



<https://cmaawards.com/wp-content/uploads/2022/09/CMA-Awards-By-Most-Nominations-9.7.22.pdf>

Scan the QR Code below or navigate the CMA Awards website to find the CMA Awards by Nominations List. How many people or groups have only received one nomination so far in their lifetime? Of those nominees, how many won their award? Based on this data, what are the odds of winning an award with only one nomination?



<https://cmaawards.com/wp-content/uploads/2022/09/CMA-Awards-By-Most-Nominations-9.7.22.pdf>

Let's go back to the very first Country Music Association Awards show in 1967. Analyze the data from that year included below. What percentage of winners were female or part of a female-only group or duo? What percentage of the awards went to each winner?

- Album of the Year** | Jack Greene
- Comedian of the Year** | Don Bowman
- Entertainer of the Year** | Eddy Arnold
- Female Vocalist of the Year** | Loretta Lynn
- Instrumental Group of the Year** | The Buckaroos
- Instrumentalist of the Year** | Chet Atkins
- Male Vocalist of the Year** | Jack Greene
- Single of the Year** | Jack Greene
- Song of the Year** | Dallas Frazier
- Vocal Group of the Year** | The Stoneman Family

Let's look at a more recent Country Music Association Awards show: 2021. Analyze the data from that year included below. What percentage of winners were female or part of a female-only group or duo? What percentage of the awards went to each winner?

- Album of the Year** | Chris Stapleton, Vance Powell, Dave Cobb
- Entertainer of the Year** | Luke Combs
- Female Vocalist of the Year** | Carly Pearce
- Male Vocalist of the Year** | Chris Stapleton
- Music Video of the Year** | Kelsea Ballerini, Kenny Chesney, Patrick Tracy
- Musical Event of the Year** | Kelsea Ballerini, Kenny Chesney, Ross Copperman, Jimmy Robbins
- Musician of the Year** | Jenee Fleenor
- New Artist of the Year** | Jimmie Allen
- Single of the Year** | Chris Stapleton, Vance Powell, Dave Cobb
- Song of the Year** | Mike Henderson, Chris Stapleton
- Vocal Duo of the Year** | Brothers Osborne
- Vocal Group of the Year** | Old Dominion

The Country Music Association Awards honors five nominees in each category every year. If the selections were random, this means that each nominee would have a 1-in-5 chance of winning an award. Imagining that all other things are equal, what would a person's odds be of winning an award if they received four nominations?

Practice navigating the CMA Awards Past Nominees and Winners database. Enter the following search criteria:

CATEGORY | Song of the Year, Single of the Year

YEAR | Any

NAME | Any

How many winners received the Song of the Year AND the Single of the Year in the SAME year? Based on this data, and all other things being equal, what are the odds of winning the Single of the Year if you have already won the Song of the Year?



<https://cmaawards.com/past-winners-and-nominees/>

Practice navigating the CMA Awards Past Nominees and Winners database. Enter the following search criteria:

CATEGORY | Female Vocalist of the Year, Entertainer of the Year

YEAR | Any

NAME | Any

How many Entertainers of the Year have been women? How many of those winners also received the Female Vocalist of the Year in the SAME year? Based on this data, and all other things being equal, what are the odds of winning Female Vocalist of the Year AND Entertainer of the Year in the SAME year? What are the odds of a woman winning Entertainer of the Year in general?



<https://cmaawards.com/past-winners-and-nominees/>

Practice navigating the CMA Awards Past Nominees and Winners database. Enter the following search criteria:

CATEGORY | Female Vocalist of the Year, Entertainer of the Year

YEAR | Any

NAME | Any

How many Entertainers of the Year have been men? How many of those winners also received the Male Vocalist of the Year in the SAME year? Based on this data, and all other things being equal, what are the odds of winning Male Vocalist of the Year AND Entertainer of the Year in the SAME year? What are the odds of a man winning Entertainer of the Year in general?



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Product Expectations and Rubric

It's time to show what you've learned about CMA Awards winners! Work with your team to create a trading card, "Believe it or Not" fun-facts-style page, or pop-up video to tell the story of your chosen Country Music artist, song, or awards category. Use the CMA Awards website and Past Winners and Nominees database as your starting point, and conduct research to find the most interesting facts and statistics about your topic. Be sure to cite your sources on a separate page or in your video credits!

Required Elements:

Trading Card

- 3x5 card
- At least one image
- Fun facts and statistics
- At least one student-created graph
- Information fills both sides of the card

"Believe it or Not" Fun Facts-Style Page

- 8x10 printed page OR 16:9 digital slide
- At least one image
- Fun facts and statistics
- Short written captions and descriptions to explain the story of your topic
- At least one student-created graph

"Pop-Up" Video

- 30 second video
- Includes audio and video of the song
- Fun facts and statistics "pop up" on screen as the video plays
- At least one student-created graph appears

Score Value	Creates a product that tells a story	Collects and calculates accurate and interesting information	Creates graphs to visually convey statistical information	References and cites a variety of sources	Collaborates with team
4	All the required elements are included in a professional, informative, and graphically interesting product	Many interesting facts and accurate statistics make the product informative and interesting	Two or more accurate and visually clear graphs enhance the display of information	Three or more credible sources are consulted for information and appropriately cited	The team works together and communicates throughout the entire activity
3	All the required elements are included in an informative and neat product	Interesting facts and mostly accurate statistics make the product informative	At least one accurate and neat graph enhances the display of information	Two or more credible sources are consulted for information and appropriately cited	The team works together but may have some issues with communication
2	Some of the required elements are included in an informative and neat product	Facts and statistics are presented, but may not be complete	A graph accompanies the information, but may not be neat or clear	One source is consulted and appropriately cited	The team struggles to communicate and work together
1	Few of the required elements are included OR the product is sloppy	Accurate facts and statistics are not presented	No graph is presented	No sources are cited, or sources are not cited properly	The team does not communicate or work together