#### A Curriculum Guide to

# Bringing Down the Mouse

by Ben Mezrich

The discussion questions and activities in this guide correlate to the following English Language Arts Common Core State Standards: (RL.6.1, 2, 3, 4, 6), (W.6.1, 3, 4), (SL.6.1, 4, 5), (L.6.2, 3, 4)

The mathematics activities in this guide correlate to the following Mathematics Common Core State Standards: (6.RP.2,3), (6.NS.1-3), (6.EE.9), (6.G.1), (6.SP.4,5)

#### About the Book

Charlie Lewis is a sixth-grade student at Nagassack Middle School in Newton, Massachusetts. He is nicknamed "Numbers" because he sees everything mathematically. He has a core group of friends nicknamed the "Whiz Kids." Charlie is recruited to be part of the "Carnival Killers," a group of students that train to beat carnival games to bring home the ultimate prize: Incredo Land lifetime park passes. Charlie soon realizes there is a reason he was chosen to be part of this elite team to win the passes to the best amusement park in the world. Will he risk his longtime friendships to complete the task?

# Prereading Activities

- 1) Describe a time where you were involved in an activity that seemed to be considered cheating. How did you feel? What did you do after completing the activity? If you could go back to that day/time, would you do anything differently?
- 2) Describe a time when you were asked to keep information to yourself and not share with your closest friends. What did you do? Did you share this information? How did you feel during and after this event?

# Discussion Questions

(These questions can be journaled and/or discussed in small groups and shared with the whole class at completion of discussion.)

- 1) After reading Chapter One, can you tell why the book is titled *Bringing Down the Mouse*?
- 2) Why do you think Charlie's parents are 5,000 miles away in Newton, Massachusetts, when he is running from two characters in an amusement park?

- 3) How did Jeremy Draper get the nickname "Diapers"? How did Charlie Lewis get the nickname "Numbers"? Do you have a nickname that people use? How did this nickname come to be given to you? How do you feel about having this nickname?
- 4) How did the "chip" incident play out for Charlie? Explain how being encountered like that at school or in public makes a person feel. Give examples to support your answer.
- 5) Why do you think Charlie is meeting Finn and Magic at the Sherwood Country Halloween Fair?
- 6) Describe Charlie's group of friends known as the "Whiz Kids." Your explanations should be detailed enough to give a person reading them a picture in his/her mind of each friend. Each small group will be asked to describe one of the kids in detail to the rest of the class.
- 7) Compare the show *Wheel of Fortune* to the carnival game of the same name.
- 8) What is the prize for winning the promotion at Incredo Land Amusement Park?
- 9) Explain why you might think twice about playing the claw machine the next time you encounter the game.
- 10) Would you play the milk bottle or basketball game? Explain why or why not.
- 11) What was the proposition made to Charlie by Miranda Sloan? If you were in Charlie's position, would you accept the challenge?
- 12) Why do you think Charlie was recruited by Miranda?
- 13) What was the one condition that Charlie presented to Miranda that had to occur in order to get him to agree to go with the Carnival Killers to Incredo Land? What does that tell you about Charlie's character? Explain.
- 14) How does Charlie learn to conquer the coin toss game? What obstacles stand in the way of winning this game?
- 15) Why aren't people able to win the dart game more often? How are these obstacles overcome?

- 16) How would someone overcome the obstacles that stand in his/her way of ringing the bell to beat the time on the rope ladder? Do you think knowing these tricks and using them is considered cheating? Explain your reasoning.
- 17) Explain Charlie's feelings about deceiving his parents and the Whiz Kids in regards to what he was doing during recess and after school. How would you feel if you were in Charlie's position? How would you feel if you were one of his friends?
- 18) How did Charlie prove he was worthy to go to Incredo Land?
- 19) What was Charlie going to use to beat the wheel at Incredo Land? Explain how this item would be used.
- 20) How was Jeremy told that he was going on the school trip to Incredo Land? Do you think this was the right thing to say to Jeremy? How do you think Jeremy would feel if he found out the truth?
- 21) What explanation did Charlie give his parents that allowed him to attend the trip?
- 22) Explain the characters that Charlie was playing as he made his way through the midway games.
- 23) How did Charlie conquer the milk bottle game? Why do you think he played it even though it wasn't on his list of three games to play?
- 24) What were Charlie and Sam doing at Incredo Land after closing hours? What does this say about how Charlie has changed from the beginning of the story?
- 25) Why did Charlie break into Miranda's hotel room? What did he discover when he was in there?
- 26) How did Charlie break the cardinal rule of the Carnival Killers? Why do you think he broke this rule? Would you have done the same thing if you were in that position?
- 27) What was the "code blue" that the Whiz Kids were involved in?
- 28) What did Crystal find out as she went through Miranda's student file? What was her response? What was Miranda's real reason for the trip to Incredo Land?

- 29) Do you feel that the Whiz Kids were breaking laws to discover information about Miranda and this quest? Explain your reasoning.
- 30) What was Finn's response to Charlie when he confronted him at the pool? How does Finn's reason for not swimming in the final meet explain why he wants to win this promotion at the amusement park?
- 31) Explain, in detail, the events that transpired as Charlie stood onstage to spin the wheel until he jumped off the stage and started running. How did he beat the wheel?
- 32) When was the backpack switch performed? What was in the pack that Loopy took from Charlie?
- 33) How did Dylan's role in Charlie's everyday life change on the day of the contest? Explain what this says about Dylan's character.
- 34) What did Jeremy decide to do with the \$50,000? What would you have done with this amount of money in this situation?
- 35) What did Finn do when he met Charlie at the airport on the way back to Massachusetts? What does this tell you about Finn?
- 36) What did Sam mean when she told Charlie, "We'll always have Incredo Land"?

# Activities

- 1) Each student should have a vocabulary journal to jot down any unknown vocabulary as they read the chapters. Lists of suggested vocabulary are included at the end of this guide.
- 2) Each student should have a response journal in which to complete discussion questions or take notes from small group discussions to share with the whole group.
- 3) Have the students work in groups to create an "unbeatable game." They will create the game in class that follows these guidelines:
  - Each group will design a game on paper that they can construct with materials they bring from home.
  - They will devise a way, different from in the story, to make it "unbeatable."
  - The groups will construct the game during class, taking notes on any changes that need to be made before their final presentation.

- Two student volunteers will try to conquer the game when the groups start their presentations.
- Each group will do a media presentation of their game and why it is "unbeatable." They will disclose the trick to beat it as well.
- 4) Have students use their knowledge of perimeter and area of various polygons to design their own amusement park.
  - Certain guidelines should be given to the boundary perimeter of the amusement park along with the total area the students have to work with. These measurements must be labeled on the project.
  - There should also be guidelines on the amount of rides, concessions, seating areas, restrooms, etc. that need to be included in the park.
  - The students will work with a partner or small group to complete the project which can be in a three-dimensional form or in a "blueprint" poster form.
  - The students need to give their amusement park a name.
  - The students/groups will present their park to the class, making sure to cover each area from the guidelines.
- 5) Have students use their knowledge of ratio and proportion to solve the following problems and ones like these:
  - Determine the cost per person for amusement park admission tickets if a pack of 4 tickets costs \$250.

Answer: You need to divide \$250 by 4 = \$62.50/ticket

• The area of the amusement park was given as 350 feet 66 inches. What is wrong with this measurement? Convert this to feet and inches using a decimal.

Answer: The 66 inches needs to be converted into feet and inches. The unit of measure should be given in square feet.

66 divided by 12 = 5.5 feet, so 350 + 5.5 = 355.5 ft<sup>2</sup>

• Three friends bought two bags of cotton candy. What fraction of the cotton candy would each person get?

Answer: You need to divide the two bags by the three friends. Each friend gets 2/3 of a bag of cotton candy.

- You walk around the amusement park (17 miles) for two hours without stopping. What is the unit rate in this situation? (How far did you walk in one hour?)
  - Answer: You need to take the distance (17 miles) and divide this by the two hours to get 8.5 miles/hr
- The roller coaster traveled 1 mile in 5 minutes. How fast did it travel per minute? Answer: You need to create a ratio of distance to time to find the unknown.

$$\frac{1 \text{ mile}}{5 \text{ min}} = \frac{?}{1 \text{ min}}$$

You need to divide the 1 mile by 5 to get 0.2 mile/min

• You bought 9 souvenirs for family members, and each one cost the same amount. You spent \$117 in total. How much did you spend on the 4 souvenirs for your brothers and sisters?

Answer: You need to divide the \$117 by the total souvenirs purchased (9) = \$13/souvenir. Then you need to take the \$13 and multiply it by the 4 siblings to get \$52 for the four souvenirs.

• 40 percent of the 110 students in the sixth grade bought tickets to ride the Rambling Roller Coaster. How many students bought tickets for the roller coaster?

Answer: One way to find the percentage is to make a proportion

$$\frac{40}{100} = \frac{X}{100}$$
100 X = 4400 X = 44

Another way is to multiply 110 by 0.40 (40% as a decimal) = 44 students

• The swing ride made one revolution every 12 seconds. How many revolutions would the swing ride make in 5 minutes?

Answer: You need to find out how many revolutions the swing makes in 1

minute:  $\frac{1 \text{ revolution}}{12 \text{ seconds}} = \frac{X \text{ revolutions}}{60 \text{ seconds}}$ 

5 revolutions = 60 seconds 5 x 5 = 25 revolutions

- 6) Students should practice using variables to represent two quantities in a real-world problem that change in relationship to one another through problems like this one:
  - Patty wanted to buy a ticket to the upcoming Harvest Fair in her town. Tickets at the gate cost \$26. If she bought the ticket in advance she would save \$4.00 off of that price. She saved \$3 the first week and wanted to add \$2 each week from the original week. How many weeks should Patty plan on saving to get a ticket for the advanced ticket price? Create a chart and a graph showing the relationship between the number of weeks that go by and the total amount she has saved.

Answer: She will need to save \$22 to get the advanced ticket price. After saving for 11 weeks, she will have enough money saved.

Week	1	2	3	4	5	6	7	8	9	10	11
\$	\$3	\$5	\$7	\$9	\$11	\$13	\$15	\$17	\$19	\$21	\$23
Saved											

- 7) Using multimedia programs (ex: NCTM's Illuminations Histogram Tools <a href="http://illuminations.nctm.org/">http://illuminations.nctm.org/</a> Go under the interactive tools and search for type of tool you want), students should create charts, line plots, and histograms based on the following data:
  - You need to create a survey that will be used with the fifth-grade classes. This survey will be based on favorite rides at amusement parks. Once your data is collected, create a chart and a histogram to present to the class.
  - Survey the fifth-grade classes on the amusement parks each has attended. Create a chart and line plot to display your data. Present your findings to the class.
- 8) How does a roller coaster work? The conversion of potential energy to kinetic energy is what causes the cars to move on a roller coaster. The coaster has all the kinetic energy it needs to run the entire ride as the car goes down the first hill.
  - Students should design their own roller coaster. They will have to decide the height of the first hill, the shape of the first hill, the exit path, the height of the second hill, and the loop. They should work in groups or individually using the following website to create their virtual roller coaster:

http://www.learner.org/interactives/parkphysics/coaster/

The following websites are excellent teaching tools for further information and activities on the physics behind roller coasters:

#### The Tech Museum

http://www.thetech.org/sites/default/files/PhysicsofRollerCoasters.pdf

# Teach Engineering

http://www.teachengineering.org/view\_lesson.php?url=collection/duk\_/lessons/duk\_rollercoaster music\_less/duk\_rollercoaster\_music\_less.xml

# Discovery Education

http://school.discoveryeducation.com/teachersguides/pdf/physicalscience/ds/roller\_coaster\_physics.pdf

# Teaching Channel

https://www.teachingchannel.org/videos/teaching-stem-strategies

# **Vocabulary**

Chapter 1 undulating monstrosity shards gawking whimsical menacing malevolent malice gargantuan menagerie	Chapter 2 reconstituted palatable unanimous biodegradable alcove ricocheted integral disdain enigma nom de plume nemesis	Chapter 3 virology cachet ideology hawking emblazoned masquerade tethered cacophony improbable threshold
Chapter 4 fruition precedent notorious monotonous delve rumination innocuous errant amiably audacity	Chapter 5 bisected adjunct facet morass acclimated jibe bulbous inkling	Chapter 6 decimated affixed feat endeavor enrapt thesis recruited
Chapter 7 prerogative prehensile recessed cantilevered penchant solace paradigm pungent infectious	Chapter 8 ilk indignant accolades culling precision ferrous	Chapter 9 kitschy palpable balked hyperbole moot belabor

Chapter 10 emphatically thermodynamics equilibrium quantifiable	Chapter 11 clambered prodigy inept bisect torque subterfuge	Chapter 12 serrated inquisition pretext metaphorically	
Chapter 13 suave phalanx ubiquitous	Chapter 14 corporeal conflagration veritable euphoria retrospect coterie chortled vestiges	Chapter 15 reverberated doused surreptitiously	
Chapter 16 plied dole gilded	Chapter 17 frenetic relegated lofted	Chapter 18 caper	
Chapter 19 ambient facades leverage agility	Chapter 20 qualms	Chapter 21 crux	
Chapter 22 crampons veritable blanched	Chapter 23 unsullied perspective	Chapter 24 vestiges sardonically	
Chapter 25 rictus	Chapter 26 conniving karma		

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