

### The Curious Incident of the Dog in the Night-Time by Mark Haddon

## 7<sup>th</sup> Grade Pre-Algebra Curriculum

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As we read through each day's passage, be sure to answer (in bullet points) the questions in the "**Reflection**" section. You may continue any reflections for homework, but be sure to reflect on the passage while we're reading it so that the content is freshest in your mind. Questions in the "**Assignment**" section are for homework. Assignments will sometimes deal with passages we have just read, but they might be questions foreshadowing passages we are about to read as well. Since Assignments are for homework, you should use complete sentences when answering Assignment questions. Please use the back of each page if you need any extra room to write.

# *The Curious Incident of the Dog in the Night-Time* Day One: Chapters 2 through 13

#### Reflection:

1. The narrator, Christopher, often includes some very particular details about the story. Some of the details might even be too detailed and unnecessary. As we read this passage, list some of the details that you think are unnecessary below. Why do you choose those details?

What might the inclusion of so many details tell us about the narrator, Christopher?

2. Why doesn't Christopher understand jokes? What simile does he use to help the reader understand what jokes sound like to him?

**Assignment**: So far we have read the first 6 chapters. They were numbered Chapters 2, 3, 5, 7, 11, and 13. Is this because Christopher can't count? Is there a pattern to his choices for chapter numbers? Why do you think he chose these numbers?

#### *The Curious Incident of the Dog in the Night-Time* Day Two: Chapters 17 through 31

#### Reflection

1. Christopher explains his method for numbering the chapters. He says, "Prime numbers are what is left when you have taken all the patterns away. I think prime numbers are like life. They are very logical but you could never work out the rules, even if you spent all your time thinking about them." (p. 12) What does this statement tell us about Christopher and his view of the world?

2. Christopher talks about metaphors. Are there any metaphors you use frequently? List any you can think of:

Imagine for a second not being able to understand any metaphors or any facial expressions. How difficult would it be to function at school? At home? With your friends?

**Assignment**: Christopher talks about the meaning of his name in the story: "Mother used to say that it meant Christopher was a nice name because it was a story about being kind and helpful, but I do not want my name to mean a story about being kind and helpful. I want my name to mean me." What does your name mean? Do you think that your name also means "you"? Why or why not? (Note: If you don't know what your name means, find out as part of this assignment!)

# The Curious Incident of the Dog in the Night-Time Day Three: Chapters 37 through 53

#### Reflection

1. What are Christopher's qualifications for a "Good Day", a "Quite Good Day", and a "Super Good Day"? Why does he choose these qualifications? What does this say about Christopher?

Christopher explains how you can give each letter a value from 1 to 26 (a =1, b = 2, etc.) and add up the numbers in someone's name to see if it equals a prime number. For example, Sherlock Holmes equals 163, a prime number. Does your name (FIRST and LAST, like Christopher did) equal a prime number? Show your work below:

**Assignment**: Christopher doesn't seem to have an emotional response when he describes how he was first told of his mother's death. What types of things does he say and do upon hearing the news? Why do you think this is?

#### The Curious Incident of the Dog in the Night-Time Day Four: Chapters 59 through 67

### Reflection

1. Christopher mentions that sometimes instructions are confusing ("Be Quiet," "Keep off the grass"). Can you think of other common instructions that might be difficult for someone like Christopher to understand? What about instructions that are difficult for *you* to follow? List them below:

Difficult for Christopher:

Difficult for you:

2. On page 42, Christopher outlines the "Chain of Reasoning" he will use to arrive at his Prime Suspect. Do you agree or disagree with his reasoning? Would your Prime Suspect be someone different at this point?

### Assignment:

We're going to help Christopher with his investigation. In the left-most column, write as many names of characters in the novel as you can think of. Then follow the column through by answering the questions in the boxes provided. Use "Y", "N", or "DK" (Don't Know). Who is your Prime Suspect based on this chart? If you arrived at a different Prime Suspect than Christopher, why do you think this is?

Name	Know Wellington?	Hate Wellington?	Often Angry?	Want To Make Mrs. Shears Upset?	Suspect?

#### The Curious Incident of the Dog in the Night-Time Day Five: Chapters 71 through 83

### Reflection

1. Christopher makes a list of "Behavioral Problems" that he has (p. 46). Look at Footnote 6, his explanation to Problem M. Have you ever been in a situation where telling the truth would get you into trouble? How does that feel? What do you think is the best solution when confronted with a situation like that?

2. Christopher's father gets angry when Mr. Shears' name is mentioned. He calls Mr. Shears "evil." Why do you think Christopher's father describe Mr. Shears as "evil?"

### Assignment:

If someone asked you to list out your "Behavioral Problems", how long would your list be? Do you think it would be easy for you to make such a list? Do you think it was easy for Christopher to make such a list for himself? Why or why not?

# The Curious Incident of the Dog in the Night-Time Day Six: Chapters 89 through 101

#### Reflection

1. Mrs. Alexander mysteriously asks "So you don't know?" (p. 59) while talking to Christopher about his mother. Do you think she told the truth after she explained it to Christopher? Why or why not?

2. After hearing the startling news about his mother from Mrs. Alexander, Christopher starts talking about a mathematics problem in Chapter 101. Why do you think Christopher changes topics from chapter to chapter so quickly and seemingly randomly?

**Assignment**: Play the Monty Hall Problem in study hall or for homework. Use this website: <u>http://math.ucsd.edu/~crypto/Monty/monty.html</u>

Play ten times "staying" with your original choice, and play ten more times "switching" from your original choice. Record the number of wins below in the first blank.

# of wins (out of ten) staying with your choice: \_\_\_\_\_

# of wins (out of ten) switching from your original choice: \_\_\_\_\_\_

Record the class percentages in the second blank (we'll compile this information in class the next day)

# The Curious Incident of the Dog in the Night-Time Day Seven : Chapters 103 through 127

#### Reflection

1. Using Christopher's method for large multiplication, try to multiply 501 X 428 in your head. Is it easy? Difficult? For what types of numbers will this multiplication method work best?

2. When discussing Sherlock Holmes, Christopher discusses the idea of a "Red Herring". List some possible "red herrings" for Christopher in the mystery of Wellington's murder:

### Application:

Christopher describes his memory as a "film," but it only contains things that actually happened (not imaginary things). What are some advantages and disadvantages of having Christopher's type of memory? Do you think you would be able to cope if you had this type of memory?

#### The Curious Incident of the Dog in the Night-Time Day Eight: Chapters 131 through 149

#### Reflection

 Christopher explains "Occam's Razor" to us (p. 90): No more things should be presumed to exist than are absolutely necessary. Do you agree with this statement? Why or why not? Can you think of an example in mathematics where Occam's Razor applies?

2. Why do you think Christopher's father kept the book Christopher was writing even though his father seemed so dead-set against it?

**Assignment**: What explanation(s) do you have for the letter from Christopher's mother being dated 18 months after she had died? Are they the same explanations that Christopher came up with? Explain. How does Occam's Razor come into play in this explanation?

# The Curious Incident of the Dog in the Night-Time Day Nine: Chapters 151 through 157

#### Reflection

 Christopher explains a formula to predict the number of frogs in a pond. Why do you think this formula explains the number of animals in a population? Why might Lambda have such strange values to explain how the population either grows or shrinks? Do you think that most "random" occurrences have a similar formula (whether we know it or not)?

2. Christopher formulates an explanation for the letters from his mother. Was this the same explanation that you came up with during our previous reading? Why do you think it took him so long to come to this conclusion?

**Assignment**: Let's revisit our suspect chart for Wellington's murder. Use the same rules as on Day 4, but you might add some new characters or change your answers/opinions on some of the older characters.

Name	Know Wellington?	Hate Wellington?	Often Angry?	Want To Make Mrs. Shears Upset?	Suspect?

# *The Curious Incident of the Dog in the Night-Time* Day Ten: Chapters 163 through 167

#### Reflection

1. Do you agree with Christopher that people's brains are like computers? Why or why not?

2. Did Christopher's father do the right thing in keeping the news of Christopher's mother from him? Explain.

**Assignment**: List any "clues" that the author gave to hint:

a) Christopher's mother was still alive.

b) Who the real killer of Wellington was.

Look back through the text, if necessary. Look for "clues" to two of the big mysteries from the novel. Clues may be found in what other characters say, in descriptions, in what Christopher says, etc. Provide page numbers for where you found your clues.

# The Curious Incident of the Dog in the Night-Time Day Eleven: Chapters 173 through 181

#### Reflection

1. Christopher decides to go live in London. Given all of his possibilities, was this his best choice? Are there other possibilities that he isn't considering that would be better for him?

2. Did Christopher properly understand the joke about the mathematician, the logician, and the economist from p. 181? What was the joke trying to say (why was it funny)? How did Christopher interpret it?

**Assignment**: In Chapter 181, Christopher mentions, "I see everything." He then explains how he essentially has photographic memory. On our class website I have listed 5 questions about this classroom. Answer the questions to the best of your ability (make sure you are not in the room while answering <sup>©</sup>).

- 1.
- 2.
- 3.
- 4.
- 5.

How many did you answer correctly (check tomorrow) \_\_\_\_\_. Describe what it must be like to have a photographic memory (One where you see every detail of every room you have ever entered, and remember them all forever). List positives and negatives.

# The Curious Incident of the Dog in the Night-Time Day Twelve: Chapters 191 through 193

### Reflection

1. In previous chapters, Christopher has mentioned his photographic memory. Discuss why entirely new places, like the train station in Chapter 191, might be frightening and exhausting for someone like Christopher.

 Look at Christopher's graph about space/time relationships from Chapter 193 (Page 157). Does this make sense? Do you agree with his explanation of the relationships between space and time? Would you change anything to make it better or more understandable?

**Assignment:** Christopher mentions the mathematical games "Conway's Soldiers". Use this website: <u>http://jean-paul.davalan.pagesperso-orange.fr/jeux/solitaires/sol/sol2-en.html</u>. Play for 5 to 10 minutes (or longer, if you like the game). Was Christopher correct in his explanation of the game? Can you find a way to get above the fourth line?

# The Curious Incident of the Dog in the Night-Time Day Thirteen: Chapters 197 through 223

### Reflection

1. In Chapter 199, Christopher explains why he believes things happen by accident. Do you agree with his explanation of how an eye evolved? Why or why not?

2. Whenever Christopher gets scared, he seems to revert to doing mathematical problems in his head. Why do you think this is? When you get scared or nervous, do you have a fallback activity to think about instead? What is it?

**Application**: Christopher solves some equations using the Quadratic Formula. This formula is used to solve "Quadratics", which are equations where one side is zero and the other side has a term with a squared variable. You can see a couple of the quadratics he solved in Chapter 197.

Since the equation has a squared term, this means there are two possible solutions to the equation. You obtain these two solutions like this:

### If the equation is $0 = x^2 + 4x - 5$ , we let a = 1, b = 4, and c = -5.

We then plug into these two equations:

(Note that the two equations are exactly the same except for one operation).

Solve the two equations for x by plugging in a, b, and c. Use scratch paper or a calculator. Show that the two values for x make the original equation (the quadratic) true.

#### *The Curious Incident of the Dog in the Night-Time* Day Fourteen: Chapters 227 through 229

#### Reflection

1. Do you think the rat that Christopher found in Chapter 227 was, in fact, Toby? What clues does the author give to indicate that it might be Toby, or that it might *not* be Toby? List the clues here:

2. In your opinion, where is Christopher better off: With his mother, who left, or with his father, who killed Wellington and lied about his mother? Are there any better options for Christopher at this point?

**Assignment:** Discuss Christopher's Dream in Chapter 229. Why do you think this dream makes him so happy? Are there some things about being alone in the world that he is not considering?

#### The Curious Incident of the Dog in the Night-Time Day Fifteen: Chapters 233 through The End

#### Reflection

1. Why is sitting his "Maths A Level" so important to Christopher? Why is he so angry when they are postponed for a year?

2. How does Christopher's father hope that purchasing a dog for Christopher will show that he can be trusted? What is the significance of the fact that Sandy is a dog, not another rat?

**Assignment**: One of Christopher's favorite questions from the Maths A-Level Tests is included in Appendix A.

Read his solution, and below list some parts of it that look familiar to you (either from this year of Pre-Algebra, or previous years of mathematics). On the other side of the chart, list parts of it that don't look familiar to you. Can you recreate his solution in your own words on the next page? Try your best to explain at least part of what he did.

Familiar	Not Familiar

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