

Instructional Guide
Collogistics
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The Monkey Sense Book

Teachers' Guide for Class Discussion

The author believes this book could be a suggested read for late middle school, early high school students. Schools that use the inter-disciplinary approach have teachers select material that covers STEM (Science Technology, Engineering, Math) and/or SEL (Social Emotional Learning). The book synopsis can be found on the author's book tour support web site's page (use QR code to scan). The purpose of the book is didactic: teaching or intending to teach a moral lesson to young adults.

A detailed rationale for this book appears in the synopsis. Teachers should know more about the book's

meaning and intent than that summary document. This is the guide to use.

The book's author is concerned about moral compass settings for young adults. The twenty year period from 2001 to today has had a significant impact on their lives. From the back cover:

“Readers aged 12 thru 20. I started this book as if you were first graders for a reason. I want to comfort you, read aloud to you, tell you a story. For your entire life USA has been ‘at war’, dropped out of agreements (for peace, climate change), been divisive politically. You endured active shooting drills, the pandemic (missed friendships, school, sports, etc.). Be Brave and carry on! Grab a bike, ‘Keepa Go’. Focus on bettering your community via bonding to lesson tensions. Vote.”

The author's comments above refrain from explicitly mentioning ‘mental health’ since those two words are almost too scary to read or think about. Although somewhat ignored and even pooh-poohed the mental health of this group is, indeed, a concern. Celebrity stars such as Naomi Osaka (who withdrew from the French Open after announcing she wouldn't participate in press conferences and later revealed she'd been dealing with

depression and anxiety), and Simone Biles (who, lacking family presence, found olympics to be overwhelming) are the popular examples of salient mental health concern.

How does one address today's complex society and at the same time handle the mental health stability issues that the adolescents are burdened with? News reports mention backlogs of 'beds' for the severe cases. This book will not help with youths that require professional help. The teachers who use this book simply have to contend with mainstream students with a relatively benign undercurrent of somewhat dire concerns as cited in the quote from the back cover.

The approach the author chose to use is derived from a somewhat controversial psychological idea termed 'primal therapy'. The author had a friend who suffered from PTSD and actually found that technique did work. It involves counseling that digs deep in the person's life. Even to the day they were born. Yes controversial.

Instead the author tries *primary school therapy* in the beginning pages. This is a universal safe zone for any person who mastered first and second grade reading. The approach is non confrontational, comforting. The risk is

that it is boring. This risk is avoided if this guide is followed.

The following paragraphs refer to specific ranges of pages, quotes from the book, and suggested didactic ideas.

Page three. Have class read. Conduct a simple test of three parts: (1) can a student snap their finger (and hear the snap noise)? (2) quoting the song verses ‘doe a deer...’ can students easily say the entire octave notes scale at the snap of a finger? (3) Finally, at the snap of a finger, can students easily mention at least eight senses (giving them a hint: first one is seeing). The teacher expects to observe a fair number of failures in trials of the third test. That provides a motive to move on, read and understand the book’s content. The author classifies any person who cannot immediately rattle off the names of eight senses as a ‘young adult’. That includes you, the teacher!

Page four: poses a question. Likely answers are the expected: ‘see no evil, hear no evil, speak no evil’. Ask how complete are these answers?

Pages five through eleven. Teacher should read aloud these pages! Yes read them. (1) the class will think these are too dumb, too easy, too babyish to read. Comfort your class with your voice. Explain that the simple sounding answers

(see no evil, etc.) aren't all that simple. There are many reasons to cover one's eyes, blinding sun, shame, wiping away weeping tears, etc. The author's five year old granddaughter had to block her ears as a parade thump-thumped by...

Page twelve: class read this page and follow the instructions at the end as a group.

Page thirteen: Discuss results of the class's experiment to turn the prior page blindfolded. Did most students know the correct answer (tasting)? Touching has many forms to be discussed. A bad fall may cause your head to hit cement (a hard touch). That could have serious consequences. A fun house could be dark with narrow passages and touching can help navigate it. Meanwhile a simple hug has an emotional component to the touch! Finally open a discussion about the so-called sixth sense.

Teachers are creative and enrich topics with no need to be prompted. There is a rather long list of opportunities to enrich any discussion about the basic senses that the book numbers as one to five. Here is a short list to consider:

- Introduce terms elixir, poison. Name benefits (elixirs) and drawbacks (poisons) associated with each sense (there are many of both).

- A vocabulary word to discuss: decibel. Describe injuries that could result as teenagers play music too loud.

- Pose questions such as ‘how can simply tasting food save your life?’ “how can smelling food before even tasting it can save your life?”

Assign for overnight reading pages fourteen through twenty eight.

Discussion pointers for the page range: fourteen through twenty eight:

- Historical tidbits to discuss. The role of monks as scribes. A famous ancient teacher, Plato.

- Geographical tidbits. Where is Uganda? What is its culture?

- By page seventeen teachers could display a plain special solid model of the eight-sided form. Ask what is wind? Wind is a superset of air meaning it is really air that has a non zero speed. Air in motion. An interesting question is air ever really still? Not moving at all? Later this can be discussed (it can be left unanswered for now).

- Pages eighteen, nineteen and twenty touch on scientific concepts. These can be explained either lightly or in some depth depending on the students' level and other factors. However a correlation of sorts is noticed: sense is best exhibited or noticed in the *air* (i.e. wind technically since wind is a superset of air). This suggests that a possible model for whatever senses do exist may be the plain solid shown. There could be eight senses if this model is appropriate. The model motivates further exploration, reading and discussions to follow.

- Page twenty one. A big word - an hypothesis (a 'bet' in the text). The clue that helped the bet is actually not the still air that humans are comfortable in (such as indoors). No. Plato's wind (as air) can raise havoc with walking, doing tricks (such as trying to navigate a tightrope). The bet is that a next sense exists. The students need to, as with all senses, consider the elixirs, the poisons. Children are rarely concerned about balance. Sports brings out awareness (a properly balanced quarterback delivers a more accurate football). A so-called poison they don't know about or understand is regards to older citizens and the proclivity to fall (with dire consequences at times). Pose the question: "have you

ever tried to ride a bicycle?” This question alone should instill the notion and value of the sense of balance that is so often ignored!

- Pages twenty two through twenty seven. Suggest that certain senses are so ingrained that they are taken for granted. Balance being one. This range of pages explores a fairly complicated sense that is also taken for granted. The class as a unit conducted an experiment earlier. It’s always a good notion to use scientific terms such as an hypothesis, an experiment, etc. The experiment was when the class read page twelve, shut their eyes, and turned to the next page (eyes still closed). This experiment (not all students will succeed) is a small example of the next sense to discuss. This page range explores relations of this sense to robotics, coding, and other technical concepts (even updrafts, biological conditions). The conclusion in this page range is a *very tentative* name for a mystery sense abbreviated as JA. Students learn that science is detective work. They learn it is OK to label whatever their ‘bet’ is on the next sense in simple non-scientific terms. (Later in the book the informal nomenclature gets clarified). Teachers interject philosophical episodes on occasion. The book offers

many opportunities to do this. For example Plato observes birds soaring without ‘making their wind’ (i.e. flapping wings). If only humans could soar like birds! What are we missing? This introduces the many attempts that were made to fly and the many techniques to mimic what birds can do.

Assign for in class reading pages twenty eight through thirty one.

- Page twenty eight summarizes the quest to decide on senses so far. Scientists take notes. Scientists ask questions. Alexa is tired. She wonders in her written notes how complete the quest is implying that it may be all done (Plato’s mnemonic model may be off by one).
- Pages twenty nine through thirty one describe part I of the tired scientist’s flashback dream. This section exhibits one of several social emotional components of the book. There is a range of events that may expose feelings of guilt, of empathy, of terror, pain, fear and sadly death. Cousin Art’s eyes are covered not to ‘see no evil’ but to unleash deep emotions that are perhaps better

off not held back. Alexa at a complete loss for words, stunned, covers her mouth. Ask students why?

- Page thirty two completes the dream on a happier note. The camp she is a counselor in has a name that is a play on words. Kampala, Uganda's capital city (i.e. Kamp - pal-A) and (Camp Pal Bee). Both friendly, welcoming places to learn. She has time to help others, personal time to reflect, pursue a quest such as: "is there a sense 8?" The page suggests the reasons and origin of the camp Alexa is attending as a counselor. Camps are therapeutic, foster children to become pals, occupy children during school recesses by keeping them busy as bees.

Assign for home reading pages thirty three through forty nine.

This group of pages encompass the time duration from Alexa's summer camp half-way point through shortly after her return to Kampala. A potpourri of incidental events, musings, making 'bets' (observations about sense 8) result by page forty nine in the happy confirmation of reliably identifying seven senses and even cataloging their scientific names! Discussion pointers for this page range

should be obvious. Suggestions follow in two parts (pages 33-39, then pages 40-49)

- Page thirty three. Like many summer camps, at some halfway point parents can spend a few hours as visitors. Alexa observes some of her camp pals, more skilled than she, show off balance skills along with the robotic-like JA skills such as juggling. Teachers have an opportunity to provide wisdom regarding nutrition. Movie theater proprietors know full well the value of popcorn. Just hearing it pop spawns a desire to indulge. Add in the aroma that permeates the entire lobby. Finally the savory butter, the salt as a supposed elixir to entice the movie attendee to munch and munch again. Nutrition? Well that's another story. Teachers know that as a plain between meal snack popcorn is fairly harmless. The butter, the salt many would agree (if used very often or too much) are rated as more of a poison effect on human's well being and good health. Children need to be informed. This same page could trigger discussions in other topics such as, given the age group of the pupils, initial "crushes". What does it mean to be attractive, handsome? Evidently Alexa held real concerns about one of her cabin mates and was glad to see that some special

person (welcomed during the brief festival) hugged and therefore consoled the poor soul. Finally: ask the class if the police officer who was present for the festival should be armed. The image montage for this page suggests the special happenings for the festival day.

- Page thirty four. Teach that any so-called scientist (that Alexa strives to be) sometimes needs to reevaluate and criticize their own skills or techniques. Alexa, frankly, knows she has certain limitations (balancing, nimbleness or JA skills). It is frustrating trying to pursue truth. Is there, or is there not a sense 8? Like groping in the dark she reasons that one very preliminary bet is that the sense 8 was, what folks thought to be the so-called ‘sixth sense’ (gut feelings). This seems a desperate bet but better than nothing. She actually has some worry or gut feelings about one of her youngsters. She seeks advice. Scientists often collaborate.

- Page thirty five. Scientists also require a great deal of patience. The descriptions in this page represent a very minor nudge towards a full understanding of any sense 8. Alexa even rules out her own bet for the silly made-up name, “insense” (admittedly not even a real word). Correlation is a fairly big word. Alexa observes

that there might be a correlation between the respective roles: counselor and teacher. Her observation should build her confidence in that it favorably compares a lowly counselor with perhaps one of the greatest of ancient teachers. You as a teacher know this. One way to affirm the greatness of a teacher is measuring his pupils. Those who attended Plato's ancient Academy are members of a who-who's list of great thinkers! By ruling out that simple gut feelings are not the answer to her quest has two results: (1) she is disappointed, having not finished the story: "what is sense 8?". and (2) she has to take some new path. Scientist suffer far more disappointments than success.

- Page thirty six. The page introduces, by means of Alexa's thorough process, the hypothesis (i.e. bet) that some facet of the complicated sense 8 involves reasoning (beyond unexplained gut feelings). She identifies the importance of something we call nonsense to actually reason correctly! She identifies tried and true commonly accepted axioms, so to speak, that often are verbalized as proverbs. Making these two simple observations has a side effect akin to a change of wind for sailors. The refreshing breeze (attractive feelings she held for a

handsome senior counselor, the popcorn vendor) has gone quiet and still. A change in wind direction! Now she has a deepened appreciation for a new trusted friend, a new confidant. Ask the class: is humor a ‘sense’?

- Page thirty seven. This page introduces yet another facet leading towards identifying sense 8. Not in the text but to be understood is this: gut feelings that teachers may have are sometimes shared with colleagues. That helps confirmation of the feelings. In the faculty room various non verbal communications convey thoughts such as ‘rolling eyes’, ‘winks’, ‘pinching nose’, finger gestures, and so on. The page suggests that non verbal, community wide communication is possible. Two examples are presented (1) a gathering of the refugees who simply hold a light to collectively remember and attempt to heal from the recent trauma (most holders being at a loss for words) and (2) a very specific exchange between two attendees who, without doubt, exchanged a special and sad remembrance.

- Pages thirty eight and thirty nine. The text avoids certain math related terms such as a geometry “theorem”. These two pages are, in effect, a generalization of some *community bonding theorem* that Alexa has cooked up. The

bonding elements that tie together folks could be happy or sad occasions as cited in the examples. More basic senses provide the glue for the binding to adhere (such as the flickering candle lights observed during silent vigils). She observes instances of community ‘seeing’, ‘hearing’, ‘smelling’ and so on. Conjuring up the haunted memories associated with the village raid convinces Alexa that, yes there is some community force (or sense) that, regrettably, can lead towards drastic results. Perhaps intimidated by the long shadow that Plato would cast, she resolves that: yes he would affirm her observations. Due to the imminent closing of camp she is ‘psyched’ to pursue her observations in a more formal way (as opposed to simple musings). The second page ends with a curious reference to some pamphlet senior counselors put out as camp closed.

Pages forty through forty six. Later on in the text there will be references to the Erie Canal located in New York State. The teacher should know that bicycles serve as a metaphor in this text. Indeed that topic begins after this reading assignment is discussed. The reference to the canal mentions the adjacent bicycle paths that attracts Alexa.

The canal could be cited here for a different reason. Folks buy tickets for a relaxing canal tour via boat. (Optionally bicycles are provided as a package deal). This range of pages is simply a slow flow in water where Alexa can think, can reflect, can grow emotionally as she ponders events prior to the camp closing. Discussions about her musings have pointers that follow.

- The initial musings were, as expected, due to the setting: Alexa finds herself in a canoe on the same river she endured turmoil years ago. The context has changed. She could now apply more scientific terms to basic canoe principals such as ‘center of gravity’. She does make an unusual observation while floating downstream. She can easily identify community exhibitions of senses (vision with candles, hearing with music, etc.) The canoe presents a very unique requirement for *community balancing*. Passage from bow to stern (including bypassing others) can be tricky unless the two understand this special balancing protocol. No harm in letting young adults become aware of canoe safety as a small benefit associated with the text!

- The young adults likely have known benefits taken for granted. Ask them: “how many of you have to lug

water a few miles everyday?” The rhetorical question fosters a discussion of Alexa’s rough beginning (too tight shoes as cited earlier included). It paints a picture of a culture that, even to this day, has struggles. Name the cultures, the struggles. Include the political issues.

- Alexa’s fond recall of a walk with Yusuf speaks for itself. One take away being how natural one, then the other, led the way (as perhaps a narrow path would dictate). Another possibly romantic take away: the secure feeling - holding hands due to the frightful conditions (some that are detailed later on in the text). The growing romantic interests continue as her musings segue to camp closing events.

- The musings have stream-of-conscious intrusions of strange terms (coxswain, shell) , water buoyancy, air buoyancy (balloons), and speculations about what makes up air today and what would have been obvious in ancient times.

- By the time her special friend’s shell became too far away to assure her, she recalls a typical disappointment that young adults experience on occasion: Yusuf was enlisted (or volunteered) to provide entertainment. If only...

- Perhaps to distract her from the disappointing thoughts she thumbs through a pamphlet that exhibits the somewhat handsome crew of eight for the shell. Yusuf is relegated to a later page with an insulting nick name.

Here she makes a resolution to find the eight senses and, honoring Plato, evidently create something more solid than the paper ‘bookface’ in her hands.

- The reading session of pages ends with her starting on her quest to complete the supposed model. She seems to understand the need for patience, getting reliable information, and being satisfied with partial results.

Before the next year’s camp she establishes a tally (or chart) of seven senses and their official scientific names.

Not a small accomplishment. Ask class: “Is it ever wrong to think big, be ambitious?” She is not afraid to speculate that someday she could host a TV show that smart folks watch (such as *Jeopardy!*). Teacher suggestions: (1) go through the chart. Obviously point out the somewhat intimidating scientific names. Also add a comment of your own that refutes or affirms the author’s more mundane possible root references to the scientific names. Probably a good time to threaten the class that they are expected to know all the detail in the chart for the next quiz (the bad

news) along with the good news: none will be asked unless and until the class has learned the final, eighth sense and it has been properly, perhaps scientifically identified! (2) point out, rather meekly, that the class has reached the halfway point in this ‘simple’ book. They have identified perhaps seven eighths of the quest. What are the implications? Answers should be: the last ‘sense’ could be complicated, could be unknown, could be controversial, could be whatever else they come up with...

Assign for home reading pages fifty through fifty eight.

This guide, as usual, will offer suggestions to promote class discussion. Back to the bicycle as a metaphor (that starts, by the way, with this reading assignment and continues on and off throughout the book). Indeed, do not miss the fact that the bicycle discussion continues (via web references to significant details) as a potential research project for the class. For you ‘free-wheeling’ teachers (akin to a bicycle pleasantly coasting downhill) this guide is interrupted with a teacher’s quiz. A previous section let the class off the hook (regarding quizzes) but not the teacher! The reason for the simple quiz will be explained (after you take it):

1. Alexa, we know from the text, felt obligated to lug water jugs to and from the nuns' school. Did her home have a dishwasher you think? (a) yes (b) no.

2. Alexa was sprouting up as a young girl and evidently outgrew her too-tight shoes. Did whatever family who supported her have disposable income? (a) yes (b) no.

Lets's cut the quiz short here. A key (in a word) concept for this entire book is *inference*. Your class is starved for detail (commonly provided in many non-educational books - such as novels). You the teacher actually have a great *opportunity due to the sparse details*. You have created many 'fill in the blanks' tests. You need to, especially as you proceed through the more challenging remaining pages, allow your class to 'fill in the blanks'. Everyone might have different answers to questions raised. The suggestions that follow will reference 'blank' opportunities that allow the class to voice their opinion, concerns, worries.

Before making suggestions for this group of reading pages, here's examples of 'blanks' that could be discussed with the teacher's quiz above. She lived in a village. Wonderfull nuns were kind enough to establish a 'school' for the surrounding villages on a river. A blank to infer: no

tuition asked for or expected. Another blank: this is maybe a good way to convert indigenous peoples (later in the text this very subject is visited). Yet another blank: describe the ‘whatever family’. The character that Alexa is somewhat based on was virtually orphaned at age five (mother died, never had a close relationship with her father). She was brought up by an older sister. She had twenty five siblings.

- Page fifty. Most all of the young adults are confronted with long duration school recesses during the summer. This page kicks off Alexa’s return to Camp Pal Bee. Suggested ‘blanks’ to bring up for class discussions are posed as questions. What makes a stay away from home camp experience unique? Is this a setting for privileged children? How eager are participants to return? Why return? Why not? This and following pages result in a mix, as far as Alexa’s experience goes.

- Pages fifty one, fifty two. It may be a good idea to run by what camp experiences the class has been exposed to (in any). The song cited in the book can be viewed on YouTube (use the QR code cited earlier to find the link).

- Page fifty three. Begins the two most compelling storylines in the entire book. (a) the bicycle metaphor and especially (b) the village model. Alexa, well beyond

training wheels days, really yearns to experience the marvel of free-wheeling, cruising, feeling air in her face. Finally, becoming assertive, she chastises a new camp counselor colleague about a simple lock and, he actually listened to her! Teacher: discuss any day camp, summer camp as a micro model of a self-contained village. Alexa shamed Quintillus by pointing this simple fact out (that should have been obvious).

- Pages fifty four through fifty eight. There are many 'blanks' (or *openings towards discussions* in this page range). The sleuthing scientist observes 'clues'. Some are from unexpected sources. Alexa is piecing together evidence (and will continue this pattern for many of the following pages as she follows her quest). The text tries to compress the extremely long duration of human evolution (small compared to the entire earth's eons). The intent being to contradict the notion that what we call ancients (such as Plato) maybe aren't really *that* old. This technique may be a topic worth debating. As a lark it may be a decent exercise to give the class a list of twenty 'ancients' and have them compute their time proximity to the present day using Alexa's ratio: 1 million years as 1 year. (They could select one outside the list that could include:

religious, royal, scoundrel folks, etc.). Be ready to answer questions such as what is UNESCO? Discuss architecture. What is Art Deco? Be wary of subtle linguistic elements (prefix ‘bi’, syllable ‘ped’) as similar elements will permeate throughout the remaining pages. Take note of the fact that learning to STOP is paramount for any bike rider and, in life, such as how and when to stop when things get precarious. Do side discussions on bike mechanics (a topic that can be fascinating).

Assign pages fifty-nine through seventy-eight.

Discuss this range of pages over three segments. For pages fifty nine through sixty two, sixty three through sixty six, and then the rest of the assigned reading. There are quite a few ‘loose ends’ to promote a healthy back and forth discussion in all three segments.

The first group should instill the following: scientists pursuing a quest have to be patient, observant, make connections (from seemingly disparate observations), and finally accept uncertainties. Specific topic pointers follow:

- The reader shouldn’t be surprised that Alexa would pass on the next year’s camp. Guess why? No bicycles are provided at the camp, no Yusuf, Leila is thriving on her own, and meager funds would be better spent on a

low budget adventure. She has concluded that further sleuthing on her whimsical tour may pan out (due to the poor *grapevine* means to conduct research at the camp).

- Perhaps a ‘gut feeling’? Alexa is somewhat fluent in four languages already. This exposure provides different perspectives as observed through the lens of peoples who speak languages. Especially at the linguistics level, subtle usage of words that have roots in Latin or some derived comparable language. French is one that may help in her quest.

- Patience? The reader may take note that years slipped by until some connection takes place. On the surface there is no reason to tie a certain number series to Plato’s wind model. In common elements exist: the strange series has been found in a variety of natural growth patterns as the text suggests: flowers, pine cones and, several others such as sea shells. No one, since Plato, has uncovered the very limited, very small number of completely regular solids that he, Alexa thinks, aptly identified with worldly elements. They are unique having identical and regular ‘faces’.

- Having progressed in her coding acumen she, at least for the time being, acknowledges that, like the

number series that evidently can never be nailed down precisely, it just may be that sense 8, the missing face in her quest model, may have a subjective component. Maybe it will never have a precise scientific name.

Uncertainty is often grappled with by scientists. If anything it provides them with a motive to push on. As will be seen further in the text, a motive to ‘keepa go’. For the time being teachers should avoid the specifics of the actual coding in the text. Later discussions will gently revisit the code that, to some in the class, might appear to be an obfuscation.

The next group of four pages present a discovery (of sorts) that Alexa makes as she takes a plunge (of sorts) and tries to actually teach (even though she remains a college student). Confess to your class that teachers are ultimately measured by the brilliance of their students.

(Parenthetically add that you expect them to all achieve high honors). Plato, for example, had an impressive list of well-known students (a side assignment to find them out). Speaking (primarily) but also writing, composing, etc. hone the artists’ skills. A linguistic element appears in these pages due to the helpful reinforcement of French words that Alexa depends on. Pointers:

- Some senses, it has been established, are so common as to be taken for granted. For ages (since Plato, before him, and to today) there has been a reasonable, common sense notion that Alexa presents to her class - the *polite discourse* paradigm (PD). The class needs to understand the innards (the structure makeup, rules) involved with PD.

- Revisiting the coding technique there are a few facets: (a) even the most intimated students in today's world needs a rudimentary introduction to computer coding. Impress the class with the fact that the logical structure (also termed an algorithm) is similar to PD. A few pitfalls to clarify: coding is yet another language (like Latin) but unfortunately quite cryptic. Coding comments can be written in a familiar language such as French or English. (b) point out the so-called stop rule, the process step (if not stopped), and most especially the recursive loop back call. (c) As an aside point out that there are better solutions the software engineers have come up with. The example is vary basic.

- The last page in this group merges a coding paradigm with PD to help the class see the model in bare form.

The final group (in the current reading assignment) amplifies the two developing themes: the village model, the bicycle metaphor. Explaining, teaching helped Alexa's thought process. She knows now (many years later) how raiders attacked her capital, the capital of her world. The class might, via inference, extrapolate the notion of just what capital was raided and when. Specific discussion pointers:

- Pages sixty seven, eight. The class gets lines like 'when I was a kid...' from their parents but it may still be tempting to sooth those few who balk at the mere mention of coding to cite Alexa's dream memory "Coding? What a joke!" and/or use the prior lyrics: *Itsa not so bad ... Shaddap You Face*. It may be appropriate to bring up the term 'PTSD' at this point. After all the class knows about war, knows about its effects, never have known peace in their lifetime. Leave out the 'D'. Alexa is a classic example of enduring PTS due to her replaying time after time a certain event. This is normal, not a disorder. Over the years she has come to the terms of the traumatic incident. She has accepted that it is possible that the actual raiders were even duped. How? It appears to be PD gone awry. The technique maps one-

for-one to a crude recursive algorithm that she used to show an elegant math solution to find a golden ratio. Compare the PillageTheVillage routine to prior coding lines. Speculate that she has forbearance for the raiders themselves (not the provokers). Perhaps due to their stupidity or ignorance. Ask the class: is it better to be stupid or ignorant?

- Page sixty nine. Here the village could be Alexa's or it could (symbolically) be some other village such as Washington DC.

- Pages seventy through seventy eight. Not quite adults ride the carnival bumper cars, dip their toes in the water. Too hot? Too cold? Alexa has found her escape. A healthy one (as would be going for a walk, a jog). The 'Alexa introspective' pages provide many opportunities to simply let the class drive the discussion as if pedaling in unison. The topical range is wide. The bicycle clearly uses 'simple machine technology'. Name a few. List the rest not named. It's OK to confess to the class: teachers are human. On a bad day expect a quick quiz (giving the teacher a time to simply sit still). The pseudo-code for teaching implies that going on and on has its pros and cons. Teaching right up to the proverbial bell turns the

class into either a boring lecture or, the opposite, rapt and enthralled students wishing they could linger, ask more questions. The text provides a simple example: no one detects a reason for the teacher to abruptly STOP except Alexa herself. Developing a nice quick assignment is a suitable choice for a fill-in. At the same time she exposes maybe some sensitivity for disabled folks using mental health escape routes (such as bike paths). (The ramp code can be found via the prior QR pointer).

- By page seventy three the class can dip their collective toes in linguistics discussions. It's OK to open their eyes to linguistic bonding elements. The examples being national-level shared expressions that are unique. (A whole dictionary of the Canadian weird sayings has been published). Opposite a large population there are curious almost private and very personal languages (so to speak) that could be discussed. For example a parent of identical twins should be aware of the effect certain clipped words have on listeners who don't hear their children as much as the parent does.

- On page seventy four Alexa misunderstood her 'keener' student. Pretty embarrassing to confuse a collection of what-not knick-knacks with a proud

heritage, proud peoples. One could speculate that there's a sizable population of folks who view Native Americans as merely a curiosity. On a whim they may acquire some token not understanding the meaning or significance that these people attribute to it. The village-related subject will be revisited and explored later in the text.

- In the remainder of the pages for this assignment, frankly, Alexa is feeling down. It is a difficult topic to bring up, but necessary. There is to be expected some range of introspection, self-doubt, mild depression (of varying duration) in pupils at this age. The topic can be gently opened such as asking them about Alexa's feelings. Discuss friendships too. Alexa's list is growing including cousin Art, Yusuf, Quintillus, Jozefa, and some that will appear in cameos to follow.

Assign for home reading the rest of the hard-copy book (but more reading is suggested later)

Pages seventy nine through eighty one simply provide a refreshing turn in Alexa's mood as well as put a cap on the knowledge of the prior seven senses with a promise that she is finally prepared to explain all she has found about sense 8. Pointers on these three pages:

- A side topic of interest to pupils intimidated by coding that uses minced words such as ‘func’ meaning function: academics know this. They are conducting research as exemplified by a special ‘draw your logic’ paradigm called ProGraph. (The prior QR link provides more detail).

- Alexa capped her thoughts regarding sense 7 that she and Art named Joint Articulation (JA). The class has already been shown the actual scientific names for the first seven senses. Ask them this: they all have scientific-sounding names, so far, except for sense 7. ‘Spacial Orientation’ doesn’t sound too scientific does it? Make a few suggestions to the class. Try to use wikis, google searches and so on to see if there is any contention for naming that sense. Perhaps Alexa missed something? Enrichment here: Ms Biles (of Olympic fame) smartly withdrew from a few events saying quite openly and frankly that she, at the time, had mental issues. What is of interest here was that she cited that doing what is nicknamed ‘twisties’ by her can be dangerous without full concentration on what she called ‘spacial awareness’. Speculate with the class: could it be that her term is the most descriptive for sense 7?

- Alexa makes a truly adult decision. One that might stay with her for a lifetime. Perhaps a good time for a teacher to interject some wisdom such as this hearsay: ‘the average adult goes through three career changes in his or her lifetime!’ Nonetheless impress on the class that it’s really neat for one to set their sights on something sounding concrete. Speculate that the masters program mentions ‘improving the well-being of urban citizens’ and the fact that she resides in an urban area *and* enjoys well-being along its well-know bicycle trails.

From page eighty two trough the end the reader is edified with Alexa’s take (not scientific for certain) of what sense 8 just might be. Indeed the outline for the rest of the book is presented as her notes. The cryptic words need detailing however. The text only goes so far. Your class can and should help to fill in any gaps or even find holes in her assumptions. Pointers follow.

- Start at the note’s first word: sensibility. (Take note that the same term was used many pages earlier in reference to Plato’s thinking). The text doesn’t really define it. In the dictionary we can observe maybe six (or more) meanings. Choose this one: ‘often used - capacity for intellectual and aesthetic distinctions, feelings, tastes,

etc.’ That’s the closest one to her intent. Speculate the following: the word sounds like two words - sense and ability. Further in her notes (we’ll get down to the words soon) there are two philosophical descriptions of how we can acquire real knowledge. In coding (such as the inclined plane quick quiz) there exists a notion of a function (or procedure). Notably they generally have what programmers call an ‘input’. They do something with it. Then they get back to the programmer and produce an ‘output’. Perhaps the sensibility she calls sense 8 is just this: we are perturbed by any or all of the well-known senses, we process it, we then output our response. Most often the output is mouthing our reaction such as ‘ouch that hurt!’, a swear word, a political diatribe, etc.

- Confessing to her cousin that explaining concepts is a challenge (as teachers well know) she uses a helpful tactic: try out English mixed with her eye-opening French words that say the same thing. Point out the nonsense awareness (recall: why would an elephant cry if an ant stepped on his toe?). The French term says it all: absurd! Most should know that ‘bon’ means good as in ‘Bon appétit!’. The French for common sense seems

appropriate: good sense. Say good, solid sense (if it makes better sense to you).

- Continuing down the list, confront the class with the tug of war associated with the two most cerebral senses that Alexa labels: empirical and evidentiary respectively. Lots can be debated about these two. Try to direct the class discussions but be prepared for emotional comments, contention, disagreement. Give examples: if someone reads a facebook post saying something very believable. Is it really true? How do you know? This is an example of using your vision sense, reading words, accepting them as fact. This could be scary indeed. The French word for the more rational approach is close to the English word: prove. Prove it. If any student asks “what does Q.E.D. mean?” be prepared to explain. If they ask “who suggested using disinfectant to kill the COVID virus?” answer honestly as you can.

- For pages eighty five through eighty nine you can order (see the QR code) a full sized poster to show the class (or you can print off the free PDF image). These pages return to the “it takes a village” theme. In many respects nation populations have become smarty pants. Something gets lost. Something to be learned from

denizens of a village. Suggest that what appears to be geopolitical divisions may be attributed to this gaping oversight. Optionally ask them to translate the ring leader's name, Trompette, (if it is a French word) to English. The section ends, Alexa out of breath, describing the importance of the aforementioned PD.

- Running out of time the two exchange items. The class has heard the term 'systemic racism'. Systemic, so ingrained and hard to change. In prior centuries populations absorbed the railroad age. Wonderful iron horses built a robust economy, helped a selected few become rich tycoons. A common phrase followed such as 'she lives on the other side of the tracks'. The tracks, though a pleasant elixir, also had (and have today) a poison element of dividing villages. Debate with the class the following: as we bone up our crumbling infrastructure elements, rails, roads, etc. should we, at the very least, consider the villagers? Ignoring them present a grave risk, tell the class. That explains Alexa's bonding versus tensions appearing on her list.

- Poll the class on any remnants such as the argument of being stupid versus ignorant. The support site (QR code) explains the person who actually spoke the words

on the poster. Poll the class with: what will Alexa do next?

Assign the class to read the proposal cited in the text and available on the web (www.oddBulb.com). Be prepared to debate the ideas the fictional college students suggested.

Finally, these are young adults, the book addresses their many growth issues (as cited on the back cover). Fortunately they also have resilience and vast pent up energy. Like the college proposal (the CFS on line paper), poll the class to create a project of some sort. Perhaps titled ‘Salvage the Village’ or some other issue of concern. Help them create a paper. Post it on line!