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Science and Detection: Making Connections through Einstein Anderson

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Educational research suggests that students learn best when they are involved in meaningful activities that are interesting, integrated, and allow them to create their own knowledge. This philosophy is reflected in the whole language classroom, recognition of multiple intelligences, writing process, information skills process, cooperative groups, use of technology, thematic units, authentic learning, and performance assessment; the teacher is no longer the "sage on the stage" but rather "the guide on the side."

Such learning theories have made an impact on science education. Just as reading and writing are no longer viewed as discrete units of knowledge, there is a growing feeling that the science curriculum should no longer be a "now it's time for science" experience. This paper will present one model of integrating science with literature, using the Einstein Anderson detective stories by Seymour Simon. In this unit I will:

1) present a short history of science education;
2) report on parallels between literacy process skills and science process skills;
3) show science process in action in Poe's classic tale "The Murders in the Rue Morgue";
4) offer the Einstein Anderson detective series by Seymour Simon as a means for making connections between science and literature;
5) provide a model called performance assessment for students to create their own Einstein Anderson-like piece.

Teaching science is something that many teachers are very uncomfortable with. They often feel a sense of insecurity about science content as well as process. They know that science instruction should be something other than teaching the textbook or setting up an experiment. But what are effective alternatives?

"The launch of Sputnik in 1957 may have had a more profound effect on American science instruction than on space exploration” (Saul 3). The Soviet success fueled the effort to improve science instruction, and the response from curriculum writers was to look at what scientists actually do. Because scientists observe, count, and make and then test informed guesses, curriculum units developed in the 1950’s and 1960’s were “hands-on.” Units were given to teachers with the directive “just get in there and explore”: this was a truly terrifying and/or frustrating experience for many teachers. Next came the use of science unit boxes with a myriad of materials and lessons, all to be “covered” within a certain amount of time. This carefully planned modular approach was also not wholly accepted by teachers because of the frustration with dealing with lost or damaged supplies, a lock-step approach to activities, difficulty in managing all the components, and, again, a feeling that this was not really science either.

Many teachers continue to feel that science is different from everything else they know and teach. Dana Blackwood spoke for many teachers when she said that she regarded science as a “body of knowledge with lists of factual information to be memorized and then used in some mysterious ways that were far beyond my level of understanding” (95). This belief is echoed in the view that “science seems like a precise thing with immutable laws that forever govern the way the answer works” (Carr 2). This leads to teachers feeling that if an experiment is done that does not get the “correct” result the students have been confused and misled; and that, of course, is a position that no teacher wants to be in.

In reality science is not a static body of knowledge; just a quick glance at the weekly science section in the any newspaper reinforces that. Science is “the endeavor that seeks to study, or obtain knowledge about, phenomena through the use of a systematic approach that is based on evaluation of evidence through reason” (Carr 2). Joseph Carr states that “science is a verb” (v).

Current science education philosophy stresses this process approach. Teachers are encouraged to plan enough time for students to manipulate ideas and to discuss, share, and apply their learning. Use of trade books and technology is important. All this reflects a more teacher-friendly environment in which packaged materials are seen as a beginning rather than an end.

However, while accepting that appropriate science instruction is important, most teachers still tend to see science as just one more thing to “cover” in what seems to be an ever-expanding curriculum. In looking for ideas for integrating science with other curriculum areas, we might look to the teaching of social studies for models. The use of trade books, both fiction and nonfiction, in teaching social studies concepts has become popular. For example, as students study Connecticut history they might also be reading the novel “Witch of Blackbird Pond” by Elizabeth George Speare and then writing narrative or expository pieces based on it. It is no longer difficult to find prepared guides that offer interesting ways to connect literature and nonfiction to the social studies curriculum.

Educators are now looking for ways to bring reading and writing into the science curriculum. There is a growing number of books and articles in professional journals that offer suggestions on how to use fiction and nonfiction trade books for science instruction. Deborah Mayer in the March 1995 issue of “Science and Children” gives guidelines on how to select appropriate materials; in that same issue Marion Matthews says to be aware of the need for diversity. Such articles stress that integrating science and language arts makes the study of scientific concepts more familiar and less threatening.

In “Reciprocal Processes in Science and Literacy Learning” in the April 1994 “The Reading Teacher”, Carolyn P. Casteel and Bess A. Isom assert that if students can’t perform basic literacy—listening, speaking, reading, thinking, writing—then they will have great difficulty with science because “acquiring scientific information, understanding scientific procedures, and conducting experiments demands application of a variety of literacy skills" (539). They continue by suggesting that there are parallel processes in science and literacy which can be used to "provide a framework . . . to deepen student understanding in both areas and promote stronger curriculum connections" (539).

One parallel in science and literature relates to initiating activities. In preparing to study a piece of literature students are encouraged to make connections with prior knowledge ("What do we know about this genre? this author?"), to predict ("Based on the title, the cover illustration, what might be expect to meet up with as we read this piece?"), and to read with a purpose ("Pay attention to how the author uses words to give a sense of mood"). In beginning a science study, learners are likewise encouraged to engage the topic through questions, observations, predictions, and information gathering.

Another parallel is that In both science and literature the learner evaluates and draws conclusions as he interacts with the material. Turning a page or completing another step in an experiment or demonstration can cause a complete rethinking of what has gone before. In both science and literature the learner must summarize/explain what has happened.

In "Science & Stories: Integrating Science and Literature", Hilarie N. Staton and Tara McCarthy present themes and activities for science using fantasy, legend, realistic fiction, myth, biography, science fiction, historical fiction, and personal accounts. Notably absent is the genre of mystery. Were they unable to find a mystery that met their requirements of being an exemplary piece of literature that fit naturally into a unit theme while suggesting opportunities for students to discuss, debate, manipulate ideas, and work in groups or independently—taking into account a wide range of reading abilities (viii-ix)? I doubt it; I would prefer to think that the mystery genre was simply overlooked for some inexplicable reason.

Mysteries and detective fiction have great potential for being the vehicle for integrating science and literacy. Like scientists, mystery readers are involved with the "constant interaction between the known and the unknown, while new ideas are discovered and others are modified, strengthened, or rejected" (Frederick xv). Mysteries and detective fiction also offer students "opportunities to evaluate and question their observational skills" and, as they do so, to "gain a sense of the importance of the process" (Frederick xv). Carr's recitation of what a scientist must do could apply equally to a detective: "To be engaged in science [or detection], you must be flexible, be capable of handling uncertainty, must view all knowledge not as absolute but rather as merely tentative—no matter how well that knowledge seems to be proven—and must be willing and able to change your mind as new evidence calls old theories into question" (Carr 2). Scientists, as detectives, must operate inductively—that is, examine a collection of evidence and then propose a theory to account for the observed facts (Carr 14). A field biologist and a detective also must make observations in less than perfect conditions. Like scientists, detectives have a systematic approach to gathering knowledge through ordered (or informed) observation (see Carr 4).

More specifically, the basic science processes of classifying, observing, communicating, questioning, predicting, using numbers, and measuring—along with the complex science processes of interpreting data, controlling variables, designing experiments, inferring, hypothesizing, defining operations, hypothesizing, and formulating models (Foster 31-32)—are directly related to how a detective operates. Let's take a look at the classic mystery by Edgar Allan Poe, "The Murders in the Rue Morgue", to see some science processes in action.

To set the scene: in Paris in 1841 Auguste Dupin and his companion are drawn to the baffling case of the horrific murders of Madame L'Espanaye and her daughter Camille. At three in the morning witnesses heard shrieks and shouts by two different voices and, responding to the cries by bounding up the stairs, did not see anyone else as they reached the locked door of the apartment. Breaking down the door (and finding the key in the lock inside) they found the apartment in total disarray with furniture thrown around, a bloodied razor on a chair, several clumps of gray hair pulled out by the roots, nearly 4,000 francs in gold in two bags, and a number of valuable items scattered all around. Noticing a lot of soot near the fireplace, searchers found Camille's body thrust up into the chimney. Madame L'Espanaye's mangled body was found four floors below on the ground beneath the apartment window.

Interviewed later, witnesses identified the rough voice, one of the two heard, as French but could not agree on the language of the shrill voice. Was it Russian, Spanish, English, Italian? Nor could anyone determine the method of exit used by the murderers. Using the front stairs was an impossibility because of witnesses. The chimneys were too small, the closed windows faced a sheer drop of four stories although there was a lightning rod about six feet from one of the windows. The apartment was completely sealed. The police were totally baffled.

Dupin's first order of business was to determine how the murderers exited the apartment. He first used the basic scientific process of classifying or "systematically imposing order to data based on observational relationships" (Foster 31). He looked at all possible means of exit—front doors, chimneys, windows. The front windows faced the street so he eliminated them as possibilities. That left two windows in the back rooms. Another component of the science process is observing, which "involves active engagement with the manipulation of objects and the use of the senses, directly or indirectly" (Foster 31). This is indeed what Dupin did next. He examined both windows thoroughly, finding the first one with a nail placed in such a way that the it could not be opened. The second window appeared to also be permanently shut, but Dupin discovered that that nail, although appearing to be whole, had the head broken off within the frame so that it only appeared to be whole and immovable although it was not. Thus Dupin identified the nail as a variable that was manipulated (a more complex science process). He had solved the mystery of the murderer's exit.

Dupin used the complex science process of interpreting data, "finding patterns or meaning not immediately apparent among sets of data that lead to the construction of inferences, predictions and hypotheses"(Foster 32), and solved the mystery of how the murderer got into the fourth floor apartment. There was a lighting rod six feet from the shuttered window. When the shutter was completely open it came to within two and a half feet of the rod. Grabbing onto the shutter from the lighting rod and 'placing his feet securely against the wall, and springing boldly from it, he (the murderer) might have swung the shutter as to close it, and, if we imagine the window open at the time, might even have swung himself into the room" (125). All at the scene observed the lightning rod, the shutter and the window, but only someone capable of interpreting data in a new way to make a hypothesis could reach the correct theory. This use of inductive thought is typical of both scientist and detective.

Another basic science process is questioning or "raising uncertainty" (Foster 31) Dupin did this when he refused to accept that the motive for the murder was stealing the gold francs. After all, he reasoned, was the murderer "so vacillating an idiot has to have abandoned his gold and motive altogether" (Poe 127).

Dupin next turns his interest to "the dark bruises and deep indentations of finger nails" (129) on Mademoiselle L'Espanaye's throat. After noting there were no signs of slippage, he designed an experiment , yet another science process, to gather data. The narrator was then asked to place his fingers on the sketch of the finger marks, trying to reproduce the murderer's action. He found it impossible. However, to make the experiment more realistic, Dupin then wrapped the paper around a piece of wood, thus simulating a human neck. The narrator still could not reproduce the grip of the murderer; indeed, he stated that "this is the mark of no human hand” (120).

After examining the scene of the crime, Dupin found a piece of ribbon tied in a knot in the style of Maltese sailors. This became the vital clue that allowed him to put together the contradictory pieces of the puzzle which were “the ferocious and gratuitous nature of the crime; the murderer’s superhuman strength; the strange, tawny hair found in one of the victim’s hands; the incomprehensible shouts heard by the neighbors” (Benvenuti 8). Dupin then performed another science process—to hypothesize or tentatively accept an explanation as a basis for further investigation (Foster 32). His hypothesis was that the murderer was an orangutan. He was correct. A sailor had brought the orangutan from Borneo in order to sell it. Returning to his apartment one evening, he discovered that the animal had broken out of its closet and was miming the sailor’s use of a razor. Seeing the whip produced by the sailor, the orangutan fled, ending up in the apartment of the two women. The screams of the women frightened the ape and sent it into a frenzy, leading to the murders.

From this early detective story came several rules for constructing a detective novel. The one related to the science process is that a dedicated examination of facts, clues, and motives coupled with a rational process will result in the successful solution to the puzzle. No guessing is allowed, only observation and reason.

Following this same rule, the detective Sherlock Holmes appeared in “A Study in Scarlet” in 1887. His creator, Arthur Conan Doyle, was a Scottish medical student whose professor, John Bell, “never tired of telling his students to use their eyes, ears, hands, brain, intuition, and, above all, their deductive faculties” (Benevuti 21). With little interest shown in this piece, Doyle focused his energy on his patients and wrote a series of historical novels. Then, in response to a request from an American magazine for one of Holmes’ unpublished adventures, Doyle wrote “The Sign of Four” (1890) . It became an immediate success and Doyle produced twelve stories within a year.

Sherlock Holmes turned criminology into a precise science—the science of deduction. Holmes’ knowledge of chemistry, botany, geology, and anatomy were essential in solving the mysteries. However, his readers have often become annoyed because he did not always play fair. Holmes is known to pick up a small object and draw a brilliant conclusion but the reader is not told what the object is. Nowadays readers want to read a story that more or less puts them on the same footing as the detective, i.e., with access to all the clues and discoveries. After all, isn’t this what the science process does, too, when it examines all the relevant facts in order to draw a correct conclusion?

Whereas there are many pieces of detective literature that could be used with students to demonstrate science process in action, the choices are fewer when considering science content as well. One possibility is selected stories from the highly popular Encyclopedia Brown books by Donald Sobol. In “The Case of the Stolen Money” (“Encyclopedia Brown Takes the Case”) Encyclopedia Brown catches the robber Aukland in a lie because the detective knew that he could not have seen the robbers immediately after entering the house from the very cold outdoors as stated because his glasses would have been completely steamed up. In another Encyclopedia Brown story, “The Case of the False Teeth” (“Encyclopedia Brown Takes the Case”), the boy detective knows that the perpetrator’s account of how newspaper clippings blew into the ocean can not be true because that the wind had been blowing from off the water all afternoon. However, not all nor even most of the Encyclopedia Brown stories have a science component.

To find an entire set of books that combines science and detection we can turn to the Einstein Anderson series by Seymour Simon, a prolific and award-winning author of science books. In the 1980’s Simon took a detour from writing science nonfiction to produce a series of seven books featuring the boy detective, Einstein

Anderson. The main character is well-known in his community as a solver of puzzles that leave others (especially adults) baffled. His knowledge is not as "encyclopedic" as that of the better-known boy detective, Encyclopedia Brown; Einstein, as his name might indicate, is a science whiz. In both series the boys have friends who bring them problems as well as challenges, town bullies with more brawn than brain, and parents that are supportive and proud. Einstein's mother, a newspaper editor, and Encyclopedia Brown's father, the Idaville police chief, recognize that their sons have talents that can be brought to bear on the towns' crimes and deceptions.

In both series, the reader is presented with a case in which there is a puzzle. After laying out the scenario, the author gives the reader an opportunity to "solve/explain" the crime/deception before turning to a page on which the answer and an explanation are found. In both series the reader has a fair chance to solve the puzzle through observation or general knowledge; in the Einstein Anderson books, this knowledge is based on physical and life science. Each of the seven Simon books contains 10 cases and the science topics covered are listed in the beginning of the book.

The Einstein Anderson books can be coordinated with science instruction in several ways. One approach is to have students read a case after a particular science topic is studied in order to demonstrate an understanding, i.e., solve the case. The teacher can then use the students' responses as a means of assessment. For example, after a lesson on solvents and solutions, the teacher could read aloud "The Universal Solvent" from "Einstein Anderson, Super Sleuth", where Einstein refutes his friend Stanley's claim that the red liquid he formulated is a universal solvent. The question posed by Simon is this: "How did Einstein Anderson know that Stanley had not invented a universal solvent? And what did he mean by saying that Stanley would be in lots of trouble if he did?" (35). Students should be able to explain the answer: if it were a universal solvent, the liquid would dissolve the glass bottle it was stored in as well as anything else it touched. The science process used here is "Defining operationally"; that is, describing what works. This case shows the connection of a science concept to our everyday life.

Another connection between an Einstein Anderson story and science learning is to use a case or two to introduce a unit of study. In "The Rain in Sparta" ("Einstein Anderson Goes to Bat"), Einstein figures out that the tent was not erected two weeks before as claimed because the grass inside the tent was green not brown; the science process is "observing". In "The Science Test Papers" ("Einstein Anderson Shocks His Friends") the plant pot obviously had been moved and the key to the cabinet in which the test papers were stored taken from under it because the plant's leaves were now pointing away from rather than towards the window. Wouldn't students become more engaged in the study of the response of plants to sunlight and other environmental factors after reading these stories?

Still another method would be turning the cases into actual demonstrations or experiments. In "Balancing Act" ("Einstein Anderson Goes to Bat") Einstein's younger brother Dennis has to win a bet that he can balance a sword for 5 minutes or he will lose all his baseball cards. Students will far better understand the concept of center of gravity by observing a demonstration of someone attempting to balance a sword hilt down and then tip down than by reading about it. (The science process used in this story is "designing experiments".)

After students have become familiar with Einstein Anderson stories, either from one of the methods above or from reading for fun, it is time to involve the students directly in writing a piece modeled on a case. This will be the students' opportunity to demonstrate that they can take a science concept and apply to a real-life situation, in this instance, within a literary puzzle.

Q. Patrick in "The Mystery Short Short" in "Writing Detective and Mystery Fiction" offers some guidelines on writing short mysteries. His main suggestion is that the idea be suitable to the brief format: “what is needed is a simple but clever murder plan comprising one or two little flaws which the detective can, by his advanced reasoning processes, discover and turn into damning evidence against the murderer” (Patrick, 239). In terms of creating an Einstein Anderson-like piece this could be translated: “what is needed is a simple but clever science concept presented within a straight-forward construct comprising a single flaw which the detective can, by his advanced reasoning powers and use of science processes, discover and turn into evidence against the perpetrator.”

Let’s take a look at some of the constructs that Simon has used in developing his science puzzles. One is that the perpetrator of the problem or challenge tells a lie. For example, in “Fireside Story” in “Einstein Anderson Goes to Bat”, Mr. Evans claimed that the fire in the attic started because a cobweb burst into flame when touched with a match. Einstein recognizes this as a lie because cobwebs do not burn brightly; they char and go out quickly. In “A Fishy Story” in “Einstein Anderson Tells a Comet’s Tale”, two men accused of stealing fish from the hatchery claimed that they were not stealing but removing fish that were dead so that they wouldn’t rot. The men went on to say that “you can tell they’re dead when their eyes close” (43). Einstein knows that this is a lie because fish don’t have eyelids. Embedding a lie in the story is therefore one method that the student writer can use when writing a science puzzle.

Another construct is the presentation of a contradiction to scientific facts. In “Relics of a Lost Continent” in “Einstein Anderson Shocks His Friends” Margaret, Einstein’s friend and rival for the title of best science student in the school, tells him that with a Geiger counter she has dated a dagger to be more than five thousand years old. A reader’s knowledge of carbon dating with Carbon 14 or, more likely, the reader’s attention to Margaret’s explanation that Carbon 14 is found in objects made from plant or animal materials, would alert the puzzle-solver to the fact that the dagger is made of metal, and therefore couldn’t be dated through the process she claimed. In “The Tale of the Comet” Einstein is asked by his mother to check out the theory presented by Dr. Edds who claimed that dinosaurs were killed off because of the poisonous gases in the tail of a comet and that we will need gas masks to protect ourselves from the next comet’s visit within the coming century. Einstein tells his mother that Dr. Edds’s theory is “full of hot air.” Why? Because a comet’s tail is made up of gases so thin they are almost a vacuum and certainly are not poisonous. He goes on to say the Earth passed through the tail of Halley’s comet is 1910 with absolutely no ill effects. So misstating a scientific fact is another device that the student writer can use when developing a story.

A third construct is knowledge of a scientific principle. Einstein and Mike carry Margaret in a sedan chair in the annual school parade in “The Big Parade” (“Einstein Anderson Goes to Bat”). Pat and Herman are the other pair of carriers. After the parade, Einstein and his friend were fresh and happy, but the two other boys were tired and sweaty. “Can you solve the puzzle: what had Einstein suggested to Pat that resulted in Pat and Herman’s doing most of the work?” The answer is that instead of each boy carrying one quarter of the weight, Einstein appealed to Pat’s vanity by suggesting that he (Pat) be closer to the front of the parade and the marshal. Einstein set up the chair on the poles so that Pat and his friend were two feet away from the it and Einstein and Mike were four feet away. Archimedes’ principle in action meant that the two boys in front did twice as much work. Other principles used by Simon are Newton’s Second Law of Motion (the force acting on an object is equal to its mass or weight multiplied by its speed) and Newton’s Third Law of Motion (for every action there is an equal and opposite reaction) in explaining why a light-weight metal bat will not be effective (“The Batty Invention” in “Einstein Anderson Goes to Bat”).

Another construct is one in which the solution depends on brain winning over brawn. Simon sets up scenarios of a competition with older bigger kids or a confrontation with the local bully. In “The Sleigh Race” in “Einstein

Anderson Shocks His Friends", Einstein challenges the seventh graders to a sleigh race. He even tells them that the sixth graders are so confident of winning that they will start the race ten feet behind the other students. With two of the lightest sixth graders on the sleigh and two of the fastest students pulling, inertia put them ahead of the seventh grade team at the finish line. This is explained by the fact that by the time the seventh graders started pulling the sixth graders were going full speed, and, in a short race, they were able to keep the lead.

Another construct is when Einstein's challenges to the older students or to the bully appear to lack common sense. For example, which would be the easier test of strength—folding a sheet of newspaper in half nine times or pushing a drinking straw through a raw potato? In "Paper Tiger" in "Einstein Anderson Goes to Bat" , Einstein predicts that Pat will do the paper folding activity because that appears easier. However, by the eighth fold the paper is two hundred and fifty layers thick and continuing to fold it is impossible. The trick to pushing a straw through a raw potato is to pinch one end of the straw tight (it stiffens the straw) and then to push straight into the potato quickly. Try it.

Howard Haycraft would tell the writer to identify the "controlling idea" (56) because mysteries are conceived backward, that is, solution first. In writing an Einstein Anderson-type piece, the "controlling idea" has, I think, two parts. One is the construct (as discussed above) and the other is the science component. Students will need to identify a scientific principle, fact or concept that will serve the science part. In order to do that they will need the opportunity to explore widely in the science content areas of physical and life sciences. Teachers could work with the library media specialist to present a display of interesting science materials. This could also be an opportunity for the library media specialist to introduce the Dewey Decimal classification system for science books. Pure science books are found in the 500 section of the library with divisions such as 530 for physics, 540 for chemistry, etc.; and students having an interest in one of the general areas could browse there. Magazines such as "National Geographic" and "3-2-1" Contact and the science sections of the newspaper and weekly magazines could also be good sources of interesting science content. Students may have favorite television programs on the Discovery channel that would connect them with science topics. Students should be given enough time to find the science concept that will interest and excite them.

With their science topic and construct in mind, students can now add the other elements of setting and character. Will the detective be a boy, girl, team? Will he/she represent a minority? Einstein and Encyclopedia (as well as Cam Jansen and Emily Eyefinger) have meaningful names, so students might spend some time with that idea. Einstein Anderson loves to pun; will their detective have a quirk like that? Einstein Anderson and Encyclopedia Brown have supportive families, friends that help them and also try to trick them, and neighborhood bullies; will the created cast of characters include these types also? What will the hometown be like? These are the very basic elements; students should be encouraged to expand and elaborate on them.

At this time students should be ready to put their knowledge of literary and scientific devices together to create a piece of their own, in cooperative groups or individually. Students will use a process based on a performance assessment model in which students construct a product that uses information and processes that one would use in the real world and has a "real audience," i.e., one other than the teacher. The role of the teacher in this model is to act as a coach who guides the students' work, provides models, and gives feedback all the way ("Human Heritage" 6). Another important piece of performance assessment is that the criteria used to judge the quality of the process and the product are shared with the students at the beginning; these criteria are used to guide and assess the work (Hibbard 5). The following section provides direction on how to implement this approach.

By connecting science and literacy, both students and teachers can gain a better understanding of the role that science plays in our everyday lives.

Lessons: Creating a "New" Einstein Anderson

Students will be asked to "create" a new Einstein Anderson piece using the performance assessment model. In this section you will find "Creating a 'New' Einstein Anderson", the performance assessment that will guide the students as they put together literary and scientific concepts within the framework. You will also find suggested activities for directing students' learning and a task assessment list for the student and the teacher to use in evaluation.

This is the performance task that will be the guide for this unit:

CREATE A "NEW" EINSTEIN ANDERSON

BACKGROUND:
Science writer Seymour Simon created a boy detective, Einstein Anderson, who solves science puzzles that baffle his friends, parents, and teachers. As in Donald Sobol's Encyclopedia Brown stories, the reader is given an opportunity to "solve/explain" the crime/deception before turning to a page where the answer and explanation can be found. Einstein can solve these puzzles because of his general knowledge of science or application of science processes.

TASK:
Your task is to write a piece like one of Seymour Simon's Einstein Anderson stories. You will create the character of a science detective and his/her friends, family, neighborhood, etc. You will include science in your story by making scientific information and /or science process important in the puzzle. You will develop a plot structure using one of Simon's constructs or one of your own. Your piece will include an explanation of the crime/deception. You hope that the publishing company, SCI-DECT Publishers, will publish your piece and ask you to write more.

YOUR AUDIENCE:
Your audience is mystery fans and lovers of science in the middle grades (and their book-buying parents and librarians).

PURPOSE:
The purpose of writing an Einstein Anderson-style piece is to interpret science in a new way.

PROCEDURE:

1. Refer to the Performance Task Assessment "Creating a New Einstein Anderson" to help you plan your project.
2. Learn about Seymour Simon and Einstein Anderson through class discussion; complete character maps of Einstein and other characters.
3. Review the basic science processes.

4. Become more familiar with resources for the science content part of your story.
5. Learn about plot devices or constructs that Seymour Simon used.
6. Develop a setting.
7. Write a first draft and submit it to another student/group for peer review.

ASSESSMENT:

1. Use the Performance Assessment List to check your work.
2. Make revisions to draft.
3. Do a final self-assessment on your piece and hand it and your piece in to the teacher.

Performance Task Assessment List: Creating a New Einstein Anderson

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Evaluate your work in each area:

E=Excellent VG=Very Good G=Good F=Fair P=Poor VP=Very Poor or Not Done

1. The title is appropriate, meaningful and interesting.
2. The detective is fully developed through description, dialogue and action
3. Other characters are consistent and believable.
4. The setting is shown through believable details.
5. The science content is accurate.
6. The science component is well integrated into the story.
7. The construct (or plot device) is well executed.
8. The explanation of the crime/deception is clear
9. The length is appropriate.
10. The writing is mechanically correct
11. The work is neat
12. The work is a pleasure to read.

Activities

In order to write an Einstein-like piece, students need to become familiar with the characters, setting, and plot devices (construct) of a typical story. They also will decide on the science content and perhaps science processes that will be part of the piece.

Simon's Einstein Anderson stories are brief, usually 5 or 6 pages including an illustration or two, plus a page for the explanation. Each of the seven books contains 10 stories, each from a different area of science and each involving characters such as his mother, father, and brother, friends Margaret and Stanley, and school bully Pat with his sidekick Herman. The settings are varied with some at school, at home, in Stanley's home lab, at a fish hatchery, in an ice cream store, etc.

In developing the plot, Simon conceived the story backwards, i.e., solution first., a typical approach for mystery writers. Each story is organized around either a basic science fact or broader scientific principle. This scientific aspect was then developed within one of several constructs—a lie told by the perpetrator, a challenge of brain over brawn, etc. and often involved Einstein using a science process.

This series of activities will give students helpful background.

Activity 1: Who is Einstein Anderson?

Purpose:

Introduce the author Seymour Simon and his fictional detective, Einstein Anderson; compare with Encyclopedia Brown from the series by Donald Sobol.

Materials:

Biographical information on Simon, display of his nonfiction books only (save the Einstein Anderson titles for later), "Encyclopedia Brown Takes the Case" and other Encyclopedia Brown books, class-sized chart (Venn diagram) to compare Einstein Anderson and Encyclopedia Brown, character map for Einstein and his supporting characters

Biographical Sketch:

Seymour Simon has written over one hundred science books for children. As a teacher, he knows how to keep his books straightforward, lively and easy to understand. In the early 1980's he took a break from writing nonfiction and created the seven Einstein Anderson books whose format is very similar to that of the other boy detective, Encyclopedia Brown.

Method:

Make a display of Simon's books for students to browse through for several days before introducing the unit. Ask the students to think about what all the books have in common (and to keep it to themselves). At your opening discussion ask students their response: hopefully they will say 1) all the books are about science and 2) each has the same author. Share biographical info and then ask students if they are familiar with Encyclopedia Brown; explain who Encyclopedia Brown is, how he got his name (the first story in each book gives background). Use one of the stories with a science base ("The Case of the Stolen Money" or "The Case of the False Teeth" from "Encyclopedia Brown Takes the Case" would be good choices) to introduce the idea of using science as a plot device. Read one of the stories aloud and ask students for the solution before sharing it. Then read the first story from any of the Einstein Anderson books. Begin a class chart using a Venn diagram comparing the two boy detectives, their hometowns, parents, friends, classmates, etc. Not all these elements will be available in any one story so plan to return to the chart during a regular sharing time so that as students read both Einstein Anderson and Encyclopedia Brown stories additions can be made to this group chart. Also begin a character map of Einstein Anderson. Students should be aware that we learn about a character in several ways: by what he/she looks like, what he says, what others say about him, and what he does. Students should add to this map throughout the reading and/or listening to of Einstein stories. Students should also map the other characters: Mr. and Mrs. Anderson, Margaret, Stanley, and Pat.

Activity 2: What are the basic science processes?
Because science is not a study of finite answers, students should be aware of the processes that allow us to discover and learn about the world around us. Through these activities students will review the basic science processes while becoming more familiar with organization of materials in a library media center and the wide variety of science materials available all around us.

1. Observing.

This process utilizes all the primary senses: seeing, hearing, smelling, tasting, touching. Observation is the source of knowledge that we use most. Students need opportunities to evaluate and question their observational skills. In the classroom or library each student selects a science magazine ("National Geographic", "National Geographic World", "Odyssey", "National Wildlife", etc.), browses to get familiar with its content and organization, and then finds a scenic photograph After studying the photograph, the student completes the statements: "If I were inside the picture I would see . . . , I would hear . . . , I would smell . . . , etc." Do this again with another magazine and different scene.

2. Classifying

This process organizes items into categories based on specific characteristics Through classifying students notice shared relationships. Students need opportunities to relate prior knowledge to new concepts, thus enhancing comprehension. Many students are not aware that they deal with classification systems on a regular basis. For example, the organization of the hundreds of videos in a video store is based on placing items in categories. Libraries organize and thus make accessible thousands of materials through advanced classification systems. One of these systems, the Dewey Decimal system which is found in school and public libraries, is a perfect vehicle for discussing classification with students. The library media specialist has many ideas for introducing/ reinforcing this basic concept of organizing materials by topic. Collaboratively plan some activities that will allow students to become familiar with the subdivisions of the pure science books (the 500's) and applied science books (the 600's) so that they can browse efficiently (for example materials about mammals have the Dewey Decimal number 599).

3. Inferring

This is the process of making educated guesses and providing explanations based on limited facts There are two types: deductive (going from the general to the specific) and inductive (going from the specific to the general). Students need to be aware that having sufficient and accurate information is important in using deductive or inductive reasoning. The library media specialist and teacher jointly plan this activity to give students the opportunity to handle a variety of science materials including science encyclopedias and dictionaries. Students will define characteristics that make the materials alike and different; categories would include topic, fiction vs. nonfiction, format (biography, collective biography, reference), author, copyright date, etc.) In this activity a student with a partner and worksheet goes to each of 12 "stations" displaying four books each and determines what the 4 items have alike; they then determine one category in which one of the items is different from the three others. Students can do the stations in any order. Do one of the stations as a group as a model.

Directions:
Visit the stations in any order. With your partner examine the materials. Record your responses.

Station	Same	Different
1		
2		
and so on		

Here are some suggested categories:

#1: each is a biography about a scientist but one biographee is female
#2: each is about an animal but one is not a mammal
#3: each is a volume from a set of science encyclopedias but one is from a different set
#4: each is about planets but only one is about all the planets
#5: each is about space travel but one is fiction
#6: each is biographical but one is a collective, not individual, biography
#7: each is about chemistry but one contains experiments
#8: each is a dictionary but one is a science dictionary

When all are finished, ask each pair to go to a station. Listen to responses. You will probably have students who, when examining the books, come up with different classification than you planned. They will need to justify this to the group.

4. Communicating

This is the means by which information is shared and disseminated. It includes organizing data so that it can effectively be passed on. Students need to be aware that information is available from a multitude of sources. Select a science topic and list sources from which information on that topic could be found; encourage the students to think broadly about how information is distributed considering the many types of print, television, telecommunications, etc. Using space flight as a topic, information could be found by visiting a planetarium, interviewing a scientist, connecting to NASA on Internet, using a periodical data base, viewing a Discovery channel show, studying a photograph, and so on.

5. Measuring

This process provides sources of hard data necessary to confirm hypotheses and make predictions. Data must be accurate and specific and often forms the information necessary for all other steps. Students need to know that the ability to describe an event by using instruments is a basic scientific skill. In the media center or classroom students could browse through a variety of science resources and collect words that deal with measurement. Encourage students to search widely and organize these terms into a class dictionary about measurement. In “The Vampire” in “Einstein Anderson Goes to Bat,” Einstein’s knowledge of how the volume of blood in the human body is measured was crucial to solving the case.

6. Predicting

This process extrapolates information from a minimum of data or information already known. Then the scientist confirms or refutes the prediction. Students need to understand that cause-and-effect relationships must be based on supportive evidence, not just opinion. We are surrounded by predictions. Students could look at newspapers and record the types of predictions found there: weather, sports events, elections, movies, traffic, fashion, etc. Students should be encouraged to be aware of science related predictions like the front page story (“New Haven Register”, July 8, 1995) about returning astronaut Norman Thagard, who “walked from the space shuttle to the amazement of NASA’s fight surgeons, who expected him to be too wobbly”. This would also be an appropriate time to look again at science magazines and also to learn about the weekly science sections of newspapers.

7. Experimenting

This process proves or disproves ideas through planning data-gathering operations, testing questions, and using organized sequential plans. Students need to know that using correct methodology is very important in determining the outcome of the experiment. This would be an opportunity for students to examine the many books on science experiments of all kinds that can be found in the library media center. There are also books on how to successfully participate in science fairs. A follow-up activity would be for students to write up, in experiment format, an Einstein Anderson story such as “Keep Your Eye on the Ball” in “Einstein Anderson Sees Through the Invisible Man” (catching a ball with one eye covered) or “The Fastest Ketchup in the Cafeteria” in “Einstein Anderson Tells a Comet’s Tale” (getting ketchup out of the bottle).

Activity 3: Identifying science content

Purpose: Einstein is knowledgeable about all areas of science from chemistry and animal behavior to fluid physics (what makes ketchup move . . . or not in “The Fastest Ketchup in the Cafeteria” in “Einstein Anderson Tells a Comet’s Tale”). Science is “a body of knowledge and understanding of the physical and natural world”. Students have had some opportunities to become familiar with science materials through earlier activities on the science process. Now they need to focus on an area of interest that will provide the content for their piece. Students also should be reading or listening to as many of the stories as possible to get a feel for how the author uses a wide variety of scientific topics from friction to animal behavior and processes.

Materials: Simon books from display used earlier, additional books borrowed from the science section (500-599) of the library media center, science magazines such as “National Geographic”, “National Geographic World”, “Odyssey”, “Science News”, etc. as well as weekly news magazines such as “Time” and “Newsweek” which have several science columns and the science sections of the daily newspapers; “TV Guide” or its newspaper equivalent to locate science television shows, science textbooks, videos, photographs, etc.

Method: Give students plenty of time and opportunities to browse through these materials to locate a topic that interests them. With the library media specialist plan a library visit to see more materials. Help students become aware of the type of science content found in an Einstein Anderson piece by reading from one of the pieces and having the students take notes on science content. Another method would be to photocopy one piece for each student and ask him/her to underline/highlight science information. (Making multiple copies of one piece in an anthology for one purpose conforms with the Fair Use of Copyrighted Materials).

Activity 4: Identifying a construct

Purpose:
In order for students to create their own piece they need to be aware of the constructs that Simon uses as a framework for the characters and content to operate within.

Materials:
Handout "Use These Constructs to Help Plan Your Story"

Method:
Use the following handout as a basis for class discussion.

Use These Constructs to Help Plan Your Story

Construct 1: Einstein's knowledge of science enables him to recognize misinformation hidden a the perpetrator's story

In "Relics of a Lost Continent" ("Einstein Anderson Shocks His Friends"), Einstein's friend Margaret tells him that she has used a Geiger counter to date a dagger. However, because Einstein knows that Geiger counters use Carbon 14 which is only found in plant or animal materials, it would be scientifically impossible to use a Geiger counter on a metal object. Will your piece include a tale/scenario that is based on a scientific impossibility? (This is the most common construct in the Einstein Anderson stories)

Construct 2: Einstein catches the perpetrator of the challenge/problem in a lie

In "Fireside Story" ("Einstein Anderson Goes to Bat"), Mr. Evans, an employee in Einstein's father's veterinary hospital, was fired. He returned to find some shoes he left behind (or so he said). A fire started in the attic and when asked about his knowledge it, Evans said , "It was an accident . . . "I lit a match to look around. I was holding the match and it touched one of those big dusty cobwebs that are all over the attic. In a second the cobweb burst into flame." The lie is "the cobweb burst into flame" because cobwebs only char; they do not burst into flame. Will one of your characters tell a lie?

Construct 3 : Einstein Anderson knows and/or uses scientific principles

In "The Big Parade" ("Einstein Anderson Goes to Bat"), Einstein knows that , because of Archimedes' principle, the work in carrying someone sitting on a chair on poles is only the same when the chair is centered from end to end on the poles. He takes advantage of this knowledge to place the chair closer to one end and then takes the other end with his friend Mike so that their load is much lighter. Will your character take advantage of knowledge of a scientific principle?

Construct #4: Einstein Anderson uses his brain while others rely on brawn

Seymour Simon and Einstein Anderson set up situations where Einstein outsmarts older students or the bully Pat. In “The Sleigh Race” (“Einstein Anderson Shocks His Friends”), Einstein challenges the seventh graders to a sleigh race and even tells the sixth graders that he is so confident of their winning that they will start ten feet behind the older kids. The relative absence of inertia puts the sixth graders ahead at the finish line in a short race. Will your detective use his brain to outthink others?

Construct #5: Einstein’s challenges seem to go against common sense

Which would be the easier test of strength—folding a sheet of newspaper in half nine times or pushing a drinking straw through a raw potato? In “Paper Tiger (“Einstein Anderson Goes to Bat”), Pat chose paper folding..and lost. Einstein reveals the trick on how to push a straw though (pinch one end of of the straw tight to stiffen it and then push it straight into the potato quickly) Will your detective present a challenge . . . and win?

Notes

Benvenuti, Stefano and Gianni Rizzoni. “The Whodunit: an Informal History of Detective Fiction.” New York: Collier, 1979.

Blackwood, Dana. “Connecting Language and Science Assessment.” “Science Workshop: A Whole Language Approach.” Portsmouth: Heinemann,1993.

Carr, Joseph J. “The Art of Science: A Practical Guide to Experiment, Observations, and Handling Data.” San Diego: HighText, 1992.

Casteel, Carolyn and Bess A. Isom. “Reciprocal Processes in Science and Literacy Learning.” “The Reading Teacher” vol.47, no.7, April 1994: 539-545.

Foster, Gerald William and William Anton Heiting. “Embedded Assessment.” “Science and Children.”vol.32, no.2 , 1994: 30-32.

Frederick, Anthony D. and Brad K. Cressman and Robert D. Hassler. “The Science Discovery Book Grades 4-6.” Glenview, Illinois: Good Year Book (Scott Foresman), 1987.

Hibbard, K. Michael. “Glencoe World Geography: A Physical and Cultural Approach: Performance Assessment Strategies and Activities.” New York: Glencoe/McGraw-Hill, 1995.

“Human Heritage: A World History: Performance Assessment Activities.” New York: Glencoe/McGraw-Hill, 1995.

“Investigating Mysteries: A Teacher’s Sourcebook.” New York: Scholastic, 1992.

Matthews, Marian. “Science Learning with a Multicultural Emphasis.” “Science and Children” vol.32, no.6, March 1995:20-23.

Mayer, Deborah. “How Can We Best Use Children’s Literature in Teaching Science Concepts?” “Science and Children” vol.32, no.6, March 1995: 16-19.

Patrick, Q. “The Mystery Short Short” in Burack, A.S. “Writing Detective and Mystery Fiction.” Boston: The Writer, Inc., 1967.

Poe, Edgar Allan. “The Murders in the Rue Morgue” “Best Stories of Edgar Allan Poe”, edited by Vincent Price. New York: Dell, 1965.

Saul, Wendy. “Science Workshop”. “Science Workshop; A Whole Language Approach”.Portsmouth: Heinemann, 1993.
Simon, Seymour. “Einstein Anderson Goes to Bat”. New York: Puffin, 1987.
Simon, Seymour. “Einstein Anderson, Science Sleuth”. New York: Viking, 1980.
Simon, Seymour. “Einstein Anderson Shocks His Friends”. New York: Viking, 1980.
Simon, Seymour. “Einstein Anderson Tells a Comet’s Tale”. New York: Viking, 1980.
Sobol, Donald. “Encyclopedia Brown Takes the Case”. New York: Bantam, 1973.
Staton, Hilarie N. and Tara McCarthy. “Science and Stories: Integrating Science and Literature Grades 4-6”. Glenview, Illinois: Good Year Books (Scott Foresman, 1994.

Teacher Bibliography

Benvenuti, Stefano and Gianni Rizzoni. “The Whodunit: an Informal History of Detective Fiction”. New York: Collier, 1979.

This translated book contains history and criticism of detective fiction and is accompanied with many photos and drawings, movie posters and stills, and a chapter called “Who’s Who in Whodunits.”

Burack, A.S. “Writing Detective and Mystery Fiction.” Boston: The Writer, Inc., 1967.

Experts discuss all aspects of detective fiction and deal with methods, techniques, and ways and means. S.S. Van Dine tells us the “Twenty Rules for Writing Detective Stories” and Dorothy Sayers offers an essay “Detective Fiction: Origins and Developments.”

Carr, Joseph J. “The Art of Science: a Practical Guide to Experiment, Observations, and Handling Data”. San Diego, HighText, 1992.

Although the bulk of this book is about science technique (how to keep professional records, use statistics, etc.) the introductory chapters “What is Science About?” and “Thinking Scientifically” are of interest to the lay reader. The Appendix A “Counterfeits of Truth: Recognizing and Dealing with Logical Fallacies in Science” will apply to any area of reasoning.

Casteel, Carolyn and Bess A. Isom. “Reciprocal Processes in Science and Literacy Learning” “The Reading Teacher” vol.47, no.7, April 1994, 539-545.

The authors state that students must have a firm foundation in literacy—listening, speaking, reading, thinking, and writing—in order to be successful in any content area. They then relate those skills to science education.

Frederick, Anthony D. and Brad K. Cressman and Robert D. Hassler. “The Science Discovery Book Grades 4-6.” Glenview, Illinois: Good Year Book (Scott Foresman), 1987.

The authors discuss the seven processes of science: observing,classifying, inferring, communicating, measuring, predicting, and experimenting and give introductory activities and questions. Then they lay out 42 hands-on activities.

Hibbard, K. Michael.” Glencoe World Geography: A Physical and Cultural Approach Performance Assessment Strategies and Activities.” New York: Glencoe/McGraw-Hill, 1995.

Written to accompany “Glencoe World Geography”, this 142 page book presents the performance assessment philosophy; provides models for assessment within the format of background, task, audience, purpose, procedure, and assessment; and includes assessment lists and scoring rubrics for a variety of tasks like a cause/effects essay, letter to the editor, oral report with visual, travel brochure, etc. Invaluable for both its clear presentation of assessment and for the models offered.

“Human Heritage: A World History: Performance Assessment Activities.” New York: Glencoe/McGraw-Hill, 1995.

Written to accompany the textbook, assessments and rubrics are provided for 39 activities. Here are additional assessment lists for scripts, posters, brochures, models, essays, etc.

Matthews, Marian. “Science Learning with a Multicultural Emphasis” “Science and Children” vol.32, no.6, March 1995: 20-23.

Science trade books can be used to help students make a direct connection to science. The authors encourage the selection of fiction and nonfiction materials that have a multicultural emphasis. An annotated list of 29 titles for elementary school students is included.

Mayer, Deborah. “How Can We Best Use Children’s Literature in Teaching Science Concepts?” “Science and Children” vol.32, no.6, March 1995: 16-19.

The author presents a checklist of ten questions that could be used to determine if a piece of science literature would be appropriate to use in teaching science concepts.

Morris, Patricia S. and Margaret A. Berry. Mystery and Suspense: Activities and Booklists for Grades 6-12. (Young Adult Reading Activities Library, v.4) The Center for Applied Research in Education, 1993.

Morris provides 30 mini-mystery and suspense booklists on such topics as castles, treasure, mail, murders, physically challenged, etc. as well as 52 activity worksheets graded by level of difficulty.

Saul, Wendy. Science Workshop; A Whole Language Approach” by Wendy Saul, Jeanne Reardon, et al. Portsmouth, N.H., Heinemann, 1993.

The introductory article by Wendy Saul, “Science Workshop” summarizes the ideas and methods developed through reading/writing workshop and applies them to science. Dana Blackwood’s article, “Connecting Language and Science Assessment”, describes how assessment procedures developed for literacy workshops are useful in science learning.

Staton, Hilarie N. and Tara McCarthy. “Science and Stories: Integrating Science and Literature Grades 4-6.” Glenview, Illinois: Good Year Books (Scott Foresman), 1994.

In addition to units integrating science and literature on a variety of topics, this teacher guide also offers reading strategies, ideas for multilevel instruction (learning disabled and gifted), cooperative learning, and authentic assessment.

Winks, Robin W. “Modus Operandi: an Excursion into Detective Fiction. “ Boston: David H. Godine, 1982.

Yale professor Robin Winks takes detective fiction very seriously as he examines the genre—with no apologies offered.

Winn, Dilys.” Murder Ink.” New York, Workman, 1984.

The former owner of Murder Ink Bookstore in New York City invites you to “pull up a chair, put up your feet, pour yourself a cuppa and join us in our favorite brew: trouble” in this smorgasbord about the genre.

Student Bibliography

I. The Einstein Anderson titles by Seymour Simon with 10 stories

“Einstein Anderson, Science Sleuth.” New York: Viking, 1980. Motion, friction, astronomy, animal behavior, chemistry, zoology, buoyancy, space science, sound and light

“Einstein Anderson Goes to Bat.” New York: Puffin, 1987. Anatomy, technology, physics, acrobatics, zoology, meteorology, biology

“Einstein Anderson Makes Up for Lost Time.” New York: Viking, 1981. Animal behavior, physical states of nature, meteorology, astronomy, zoology, anatomy, general science

“Einstein Anderson Sees Through the Invisible Man.” New York: Viking, 1983. Light and optics, water pressure, sense of vision, space science, inertia, atmospherics and pollution, chemistry, animal behavior, fluid physics

“Einstein Anderson Shocks His Friends.” New York: Viking, 1980. Electricity, zoology, radioactivity, biology, motion, space science, chemistry, heat, change of state (Selected as “Outstanding Science Trade Book for Children” by National Science Teachers Association 1980)

“Einstein Anderson Tells a Comet’s Tale.” New York: Viking, 1981. Astronomy, optics, rocketry, zoology, change of state, inventions, motion

“Einstein Anderson Lights Up the Sky.” New York: Viking, 1982.

II. Other books of interest

Alfred Hitchcock’s Solve-Them-Yourself Mysteries. New York: Random, 1963. Alfred Hitchcock introduces and then intersperses comments in these five mysteries.

Doyle, Arthur Conan. “The Adventures of the Speckled Band and Other Stores of Sherlock Holmes. “ New York, Signet, 1965. This is a basic collection of the classic mysteries.

Ireland, Karin.” Albert Einstein.” (Pioneers in Change) New Jersey: Silver Burdett, 1989. This juvenile biography has many photos and is very accessible to middle grade readers.

Poe, Edgar Allan. “Ten Great Mysteries.” N.Y.: Scholastic, 1989. This is a collection of some of his famous and not so well known mysteries, including one about time travel.

Sobol, Donald. “Two-Minute Mysteries.” New York, Scholastic, 1967. Detective Haledjian solves these 79 brief mysteries; answers are upside-down at the bottom of the page.

IV. Each of the following is one in a series of juvenile mysteries

Bellairs, John. “The Spell of the Sorcerer’s Skull.” New York, Bantam, 1984. Johnny Dixon and Professor Childermas are hot on the trail.

Bellairs, John. “The Treasure of Alpheus Winterborn.” New York, Bantam, 1978. Anthony Monday is the detective in this Bellairs series.

Bethancourt, T.Ernesto. “Doris Fein: Superspy. “ The teen detective never gives up.

Corbett, Scott. “The Case of the Silver Skull.” New York: Little, 1974. Roger Tearle is the detective in this series.

Dixon, Franklyn W. “The Hooded Hawk Mystery.” New York: Grosset and Dunlap, 1971. The Hardy boys, Frank and Joe, solve any mystery that baffles the town of Bayport.

Hildick, E.W. “The Case of the Snowbound Spy.” New York. Macmillan, 1980. McGurk and his assistant sleuths solve many cases.

Howe, James. “Dew Drop Dead.” New York, Atheneum, 1990. Sebastian Barth is a super sleuth.

Keene, Carolyn. “The Bungalow Mystery.” New York, Grosset and Dunlap, 1960. Nancy Drew remains the all-time favorite female sleuth.

Newman, Robert. “The Case of the Vanishing Corpse.” Atheneum, 1980. This group of boys are friends with Sherlock Holmes in Victorian England.

Snyder, Zilpha. “The Famous Stanley Kidnapping Case.” Atheneum, 1982. The whole family gets involved in the cases.

Sobol, Donald. “Encyclopedia Brown Gets His Man.” N.Y.Bantam: 1982. Encyclopedia Brown outsmarts everyone in town.
