



## Curious George, Raggedy Ann, and Pooh | Lucy A. Martin

I have never been a fan of Curious George, that impish little monkey that pulls pranks and comes out a hero. I have always thought Raggedy Ann and her cookie dough features a bit too cartoonish. And while I enjoy the human aspects of Pooh and his playmates, I prefer to meet them in the book and not on my students' lunch boxes.

But I have found this dubious trio a cross-curriculum asset. I will start with Curious George. If your students struggle to memorize the names of the 88 constellations, write H. A. Rey on the chalkboard and ask where they have seen that name. Several grins will dawn, and some student will remember that Rey wrote the Curious George books. Gently correct them. Rey's wife Margret did most of the writing. Hans Augusto Rey drew the pictures.

With their curiosity on board, tell them that Rey drew many of the constellation figures as we know them today. Disenchanted with traditional star pictures, he connected the stars to make Leo Major look more like a lion, Virgo more like a maiden, and Gemini more like the twins they claim to be.

Hans and Margret Rey liven history class too. This Jewish couple fled Paris on homemade bicycles only hours before it fell to Hitler's troops. With them they took the manuscript that captures children's imaginations yet today—*Curious George*. Hans' clever animal drawings first won the attention of a French book publisher who suggested he write a story about the winsome little monkey. Margret wrote most of the seven stories that arose from that suggestion, and Hans illustrated them.

While Curious George perks science and history classes, I choose Raggedy Ann for reading class. To teach foreshadowing, I pull out the touching little myth about Raggedy Ann's origin. John Gruelle, a cartoonist, was at his desk one snowy day when his daughter Marcella appeared with a faceless rag doll. Marcella begged her father to give her dolly a face. John cooperated and sent his daughter home through the snow.

There I stop the story and ask the children what will happen next. They rightly assume that Marcella will die, because the story starts with the dolly sitting alone in John Gruelle's office. No one asks him why. Everybody knows the story—and the students think they do too. Marcella will head home, be struck by a car, and die. Her father will keep her dolly in sad memory of her. Well, not quite. Instead, the mythical story, written by John himself, explains that Marcella went home, grew sick later, and died.

The doll turns out to be the first of many Raggedy Ann dolls.

The truth is only slightly different. John Gruelle drew the first Raggedy Ann doll features on his sister's rag doll. Raggedy Ann was already popular by the time Marcella died of an infected vaccination site. Although vaccination itself did not cause the young teenager's death, the anti-vaccination movement uses Raggedy Ann as their symbol today.

I need only lift *The Complete Book of Pooh* from my desk, and the students laugh. But Pooh, bear of little brain that he is, unites literature and history with a somber tone. When we study about the air raids that pummeled London during World War II, I

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# CHRISTIAN LIGHT



# THE PLANET

In this series we “travel” to four different continents to “visit” schools that use Christian Light’s curriculum or services.

## Oceania: Papua New Guinea | Jason Kauffman

**N***em bilong mi Lamesi.*” (My name is Lamesi.) I am 14 years old, and I live in the highlands of Papua New Guinea (PNG) near the village of Kundiawa. I was named after a pastor in the village. My father’s family lived in Port Moresby, but he moved to the Eastern Highlands Province when he was eighteen to work on a coffee plantation.

When I was 8, my family traveled to Maprik, my mother’s village in the East Sepik Region. To get there, we took a long boat trip up the Sepik River. We saw several large crocodiles swimming only a few meters away from our small wooden boat.

While in my mother’s village, I saw a sign in front of a school that my father read aloud to me; it said “Christian Light Education Academy” in bright red letters. A few meters away from the school was the town library. I knew it was the library because the sign in the front of the building said, “*Buk bilong Pikinini.*” Even though I had attended the government school in my village for a few years, I could not read much, but I knew what the sign meant—books should be a big part of a young child’s life!

We noticed the children at the school were well-mannered and the school grounds were tidy. Under a thatched-roof building several students were seated on the ground. They were all saying funny sounds and reciting, “D, D, D, D, Debbie Duck can say quack but can’t say cluck” and “F, F, F, F, fish are funny, they eat worms but don’t eat honey.” A well-dressed man noticed us and came to the fence to talk to us. “This is the Learning to Read class,” the

friendly man explained.

“The school uses a Christian curriculum that helps the students learn to read well and teaches them about God at the same time. The students also learn mathematics, Bible, science, and history.”

My parents were not Christians at that time, but I could tell they were interested in this new way of learning. Neither one of them could read very well, but they wanted my two sisters and me to have a good education. Sadly, the government schools were not providing it.

Back in our village, we met Pastor Lamesi walking home from church one Sunday morning. My father asked him if he knew of schools like we had seen in Maprik. Pastor Lamesi smiled broadly. “I just returned from Goroka, where I helped to build an extension to a building that will serve as a training center for teachers and administrators of such schools,” he said. He explained that a couple named John and Elizabeth Joseph were working with people in Australia and the United States to bring affordable Christian education to PNG with the Christian Light curriculum by supporting schools and teachers that use it.

The next time my father delivered coffee to the roasting co-op in Goroka, he took a PMV (Public Motor Vehicle) about ten kilometers on a muddy potholed road to the Gerex compound to meet the Josephs. Father met Mr. Joseph at his little store. Some men were erecting a large tent on the property nearby. Mr. Joseph explained they were preparing for the annual educators’ conference where people from all over PNG would come to hear speakers from Australia and the United States teach the attendees how to improve their teaching skills and learn about the Christian Light curriculum.





Father stayed a few extra days. I am so glad he did. A visiting pastor was preaching in the evening and gave the invitation to receive Jesus as Saviour and become a Christian. My father gave his life to Jesus, which changed everything in our home. He stopped drinking beer and smoking marijuana; he stopped chewing betel nut, and he began taking us to Pastor Lamesi's church each Sunday morning. One day soon after, my parents were baptized.

Sometime after this, my dad was offered a job at the Aiyura Agricultural Research Station, close to Ukarumpa. Our family moved there and soon learned to know the owner of a nearby coffee plantation. His name was Jon Yogiyo. We were delighted to learn that he was a Christian. He told my mother that his wife Marey was the principal of a small Christian school located behind the Ukarumpa airport. When my father learned that this was another "CLE school," my parents enrolled my sisters and me in the school.

The first thing we did was to complete a diagnostic test. Even though I was twelve years old, I was placed in the Learning to Read class because Mrs. Yogiyo recognized that I had not learned the phonics rules very well. In just a short time, I was able to graduate from Grade 1 and then move on to Grade 2.

When I was in Grade 2, Mrs. Yogiyo showed us photos she picked up when she attended a recent educators' conference. A few photos were of a school in Kavieng in the New Ireland Province, an island east of mainland PNG. Mrs. Yogiyo explained that this school had very few resources; things like desks and chalkboards were not available. However, that did not stop them from having school. To study math facts, the teachers would take the students to the beach each morning after the tide went out. The students used sharp sticks to work their math problems on the wet sand. The teacher walked around each student making sure their markings were all correct. After math class the students wrote out their spelling words, saying each letter as they carefully wrote on the sand.

*The beach that doubles as a workbook in Kavieng.*



## About Papua New Guinea (PNG)

- The two main spoken languages in PNG are English and an English creole called *Tok Pisin*, or *Pidgin*. Both are official languages of PNG.
- In addition to Pidgin and English, there are over 800 distinct indigenous languages in the country.
- PNG is a member of the British Commonwealth and a constitutional monarchy. The PNG parliament governs the country, with Queen Elizabeth II being the head of state.
- PNG is one of the most culturally and geographically diverse places on earth, with over 1,000 cultural groups scattered over the rugged terrain. Some people think there may still be some uncontacted people in the remotest parts of the country.
- Betel nuts are the fruit of the Areca palm tree. For chewing, a few slices of the nut are usually wrapped in a betel leaf along with additives and spices for flavor. Many chew it for its effect as a mild stimulant, but chewers are at a very high risk of developing mouth or esophageal cancer.
- The country has a history of cannibalism and head-hunting well into the 1900s.
- There are twenty provinces plus a few other administrative regions in PNG.
- Christian Light's distribution of curriculum and services spread rapidly from 2012–2019. The Josephs, through their organization and hard work have helped schools in most of the provinces get started with Christian Light curriculum.
- Christianity is the predominate religion in Papua New Guinea. Roman Catholicism, Lutherans, Seventh-day Adventists, and Jehovah's Witnesses all have a strong presence in the country. Traditional animism and ancestor worship are frequently incorporated and practiced side by side with Christian customs. We are not aware of any conservative Anabaptist churches in Papua New Guinea.

Source: Various, including wikipedia.



Just before the beginning of the current school term, we were surprised to learn that Digicel, the area mobile phone service provider, along with a charitable foundation, had donated a large new classroom to the school. Mr. Yogiyo explained that the Digicel officials were so impressed by the quality education the school provided that they contributed the classroom so that more students could attend. Mrs. Yogiyo told us a little history. “The school started under my house as a way to teach my grandchildren. The news soon spread into the village; the school relocated and continued to grow. Some students had to study outside, and now many more *pikininis* are receiving a good education.”

Our school begins at 9:00, but I have to leave my house one hour before to walk two kilometers to get there on time. We begin with devotions in the new classroom, and then we recite Scripture passages. We often sing the national anthem.

*O arise all you sons of this land,  
Let us sing of our joy to be free,  
Praising God and rejoicing to be  
Papua New Guinea.*

I am now in Grade 3. There are 15 students in my class, and I am the oldest. We have good times learning math facts and the grammar rules. Everyone enjoys recess because we can practice our soccer and rugby skills. Each day for lunch, we are served a generous portion of rice and *kaukau*, a sweet potato.

A highlight every year is the *mumu* Mr. Yogiyo does at the end of each school term. A *mumu* involves digging a pit, filling it with hot coals or rocks, covering it with banana leaves, adding vegetables and chicken or pork, then burying the whole lot for hours so it can cook.

The last time Mr. and Mrs. Joseph visited our school, they told us there are approximately 1,200 students in around seventy schools in Papua New Guinea that use the Christian Light curriculum. Some people refer to the fast growth and spread of schools that use the curriculum as “the CLE movement.” I’m so glad I can receive a good education while also learning about God. 🙏

*Lamesi is a fictional character; his story is composite, made up of realistic scenarios collected from the experiences and memories of Jason Kauffman. Jason, his wife Melody, and family have lived in Queensland, Australia, since 2003 and have been instrumental in distributing Christian Light's curriculum and services in Australia—and since 2012, in Papua New Guinea. Jason makes several trips per year to PNG, although COVID-19 changed that in 2020.*



Top: John and Elizabeth Joseph, left, with several teachers.  
Center: The school building that Digicel donated.  
Bottom: Teacher conference attendees in 2017.





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read to my students the poem Mr. Milne wrote on return to his London home in the wake of a raid. Finding only the steps, he sat down and wrote:

*Old London's time-encrusted walls  
Are but the work of human hands.  
What man has fashioned for us falls;  
What God has breathed into us stands.*

As we look at the boy in our history book, sitting amid the rubble he once called home, and try to imagine him as Christopher Robin, we grow increasingly sure of one thing. Life is more than

the sum of its parts; more than naughty monkeys, yarn-headed dolls, and fluffy-brained bears. [u](#)

*This year is Lucy's 32nd term of teaching eighth graders at Paradise Mennonite School in Hagerstown, Maryland. In addition to eighth-grade subjects, she enjoys teaching high school home economics and art classes.*

## A Lesson at the Creek | Martha Kornelsen

**I**t was time to take a walk. It had been another trying day at school. The students made so many careless mistakes, and hadn't been paying attention well to what I'd been trying to teach them. I decided to go to the creek for some refreshment. I've always enjoyed watching the water rush over the rocks and listening to its contented gurgle.

This time there was a rushing waterfall after a recent rain. Another time when I was there, there had been a lot of debris—leaves and small branches washed up against the rocks. I'd felt like stepping out into the creek to push it away and clean things up. But I just let it be since I didn't want to get my feet all wet. Now, a minor “flood” had washed it all away, and the creek looked cleaned up again.

*How much like my heart with all its selfish debris!* Frustration and impatience toward my students was piling up. I was fretting and

complaining, wondering how I would ever get through to them. I failed to realize that I needed this flood of trials to wash away the selfish ugliness in my heart!

As teachers, we are blessed to have a God that sees the real need in our hearts and uses trials to purify us! [u](#)

*Martha Kornelsen has taught school, mostly first graders, for seventeen years in Oklahoma, in the same building where she received most of her own schooling. (Her first three years of school were in three different countries.) Besides teaching, she enjoys gardening, taking walks, and spending time with her nieces and nephews.*



# Kola Superdeep Borehole: The Deepest Hole Ever Drilled

*This is the third of a series of geography-related articles for Outdoor Classroom, with a particular focus on fascinating and unusual natural and man-made phenomena.*

**I** remember as a boy being fascinated with the thought that China was directly below me and that, if I could dig a hole deep enough, I could reach the other side of the planet. It delighted me to learn that my brother-in-law, when a boy, actually tried digging through!

### Let's race

In the early 1960s, the United Soviet Socialist Republic (USSR) and the United States constantly competed for superiority. In the Arms Race each tried to outdo the other with military strength and equipment. In the Space Race both tried to establish a superior presence in space exploration. How about a Depth Race? Yes, that too!

The USSR's Interdepartmental Scientific Council for the Study of the Earth's Interior and Superdeep Drilling spent years preparing for this project. The United States had embarked on a similar project in 1957, intending to penetrate the shallow crust under the Pacific Ocean of Mexico. The project was abandoned when Congress cut off funding in 1966 after spending \$57 million on it. The hole depth? A mere 601 feet. (The seafloor was 11,700 feet below the ocean surface.)

Both projects set out to penetrate the earth's upper crust and sample the Mohorovicic discontinuity, or "Moho," the mysterious area where the crust and mantle intermingle.

### Dates, progress, setbacks

The Soviets in 1965 decided to drill on the Kola peninsula, which lies mostly within the Arctic Circle in northwestern Russia. Drilling finally began in 1970.

The specially designed drill bit spent the next 24 years chewing its way toward the goal: a depth of 49,000 feet (15,000 meters). On June 6, 1979, it broke the world depth record of 31,440 feet (9,583 meters) that the Bertha Rogers hole (an oil exploratory hole) in Oklahoma had held. In 1983 the drill passed 39,000 feet (12,000 meters), and drilling was stopped for about a year to allow scientific and celebratory visits to the site.

In September 1984, at 39,587 feet (12,066 meters) a section of the drill string twisted off in the hole. After repairs, drilling was resumed at 23,000 feet (7,000 meters).

In 1989, the hole reached 40,230 feet (12,262 meters). Drillers expected to reach the goal of 49,000 feet by 1993. But drilling terminated in 1992, stopping about 1.7 miles short of the goal.

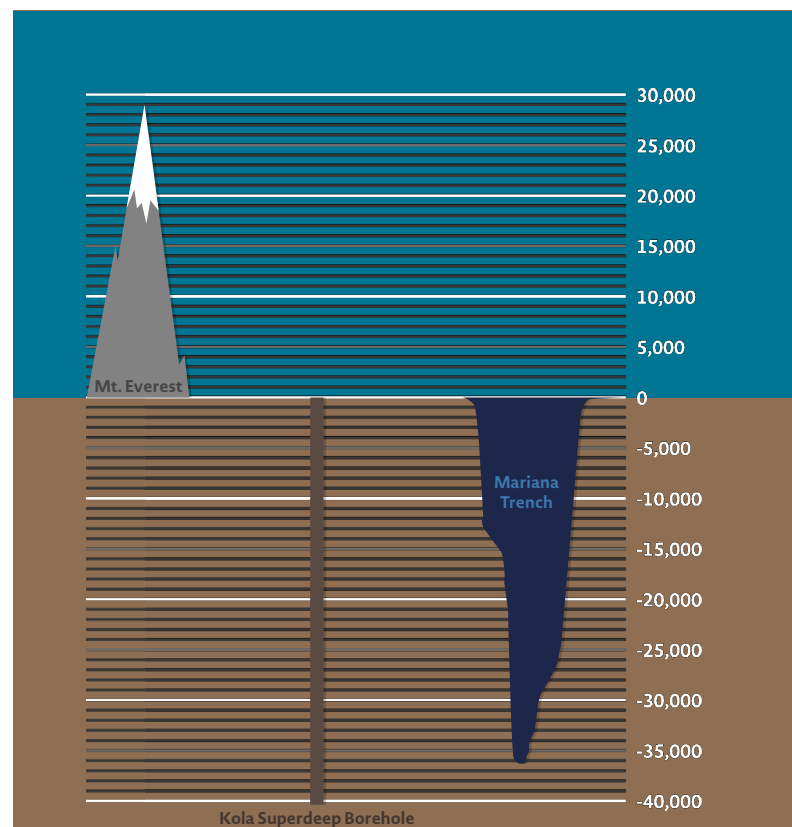
For nearly twenty years the Kola Superdeep Borehole remained the deepest (vertical depth below the surface) and the longest (measured length) hole ever created by man. In 2008,

the 40,318 foot-long (12,289 meter) Al Shaheen oil well in Qatar surpassed it in length. Although no longer the longest, the Kola Borehole is still the deepest.

### Findings and Quitting

Why quit? The drilling stopped because of unexpected findings and the conditions down deep. What did they find?

- **Plenty of water.** Hot mineralized water was found almost everywhere along the drill path. You would have thought that solid rock would be dry as a stone.



At this scale, the Kola Superdeep Borehole looks impressive. It dwarfs the height of Mt. Everest by 11,201 feet, and is about 4,030 feet deeper than the Mariana Trench. But what if you actually wanted to drill all the way through the earth? Assuming that you really *could*, and using the scale of this illustration (one inch equals 18,123.3 feet), the earth's diameter would be about 209½ LightLines laid out top-to-bottom (or 192.2 feet.) At full scale, that means you'd need to drill the Kola Superdeep Borehole more than 1,039 times over before you came out the other side.



- **Unexpected gases.** Helium, nitrogen, and carbon dioxide were found along the borehole. (Carbon dioxide comes from microbes. Explain that.) The mud flowing from the bore hole was described as “boiling with hydrogen.”
- **Plankton fossils.** In granite, four miles below the surface. How did that happen?
- **No basalt under the granite.** Huge surprise. Scientists thought that granite would give way to basalt.
- **Intense heat.** This is why they couldn’t go deeper. Scientists expected 212°F (100°C) at 40,000 feet; they found 356°F (185°C). How can you drill through very porous rock that is so hot it behaves somewhat like plastic?

### Hole to Hell?

There’s a persistent rumor that the drilling ended in 1992 because the bit pierced into a super-hot cavity and scientists could hear the screams of damned souls. This rumor has been thoroughly debunked but persists because of the erroneous reporting of some Christian news outlets.


### Anticlimactic end

The Soviet Union was dissolved in late 1991. Russia officially terminated the project in 1995, and in 2008 decided to destroy the borehole facilities. Curious sightseers still visit the site although the structures are partially destroyed or removed. Today all that marks the deepest hole ever made by man is marked by a nondescript rusty 9" welded cap.

### Results

Not all was in vain. The astounding discoveries and the core samples collected throughout the drilling process provided valuable information to the scientific community, with some scientific theories being thoroughly dispelled. The rotary bit was revolutionary to the drilling industry. Drilling mud was forced through pipes at high pressure to turn a turbine that spun the drill bit at 80 rpm.

This feat has provided inspiration for other efforts to drill deep and explore the earth. In 2011, an Exxon company drilled the world’s longest well. Most of this 40,502-foot well ran horizontally; it was completed in sixty days. Nineteen months later, Exxon broke its own record with a well measuring 40,604 feet.

However, at 40,230 feet deep, the Kola Superdeep Borehole still holds the world record as the deepest artificial point on the planet. –K.K. 

**Sources:** <https://www.bbc.com/future/article/20190503-the-deepest-hole-we-have-ever-dug>  
<https://www.amusingplanet.com/2018/12/kola-superdeep-borehole.html>  
[https://en.wikipedia.org/wiki/Kola\\_Superdeep\\_Borehole](https://en.wikipedia.org/wiki/Kola_Superdeep_Borehole)  
<https://encyclopedia.smartencyclopedia.eu/content/kola-superdeep-borehole/>



*The drill tower for the Kola Superdeep Borehole.*

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*The facilities at the borehole site, after falling in to disrepair.*

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*The borehole itself, covered by an unassuming steel cap.*

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### Learning Box

- Compare the depth of the well with the height of Mount Everest, the elevation of long-distance air flights, or the distance to a local landmark, etc.
- Help students understand the difference between *longest* and *deepest* well.
- Have students calculate the average rate of drilling, per year, per month, per day. They’ll be surprised at how slow and tedious it was. A lesson in tenacity and determination.
- Calculate the cubic feet displaced by the well and the weight of the dirt and rock drilled up.
- Discuss the motivation and the merits for the project and consider whether the results obtained were worth it.

## “Everything to God in Prayer” | Mary Hein Dueck

It was one of those hot, breathless days when inhaling was a hard job. Teachers, however, like martyrs, must crucify the flesh, take up their cross, and teach, regardless of the temperature.

*Was Dave feeling cranky because of the weather, or did his grouch rub against my grain because of the heat?* I thought he was an easygoing fourth-grade boy, but here I was suddenly dealing with rebellion such as I have rarely encountered in a student.

School had been in session for two months, and I thought I knew my students well. But I had never suspected a trace of rebellion in this handsome little fellow before. Dave’s attitude took me by surprise.

I asked him to take out the trash. He looked me in the eye and refused.

“Dave,” I spoke with some surprise. “If your teacher asks you to do something, you must do it without a fuss.”

“I don’t want to.”

“Dave, it’s not a matter of choice,” I said. “Even if you don’t want to, you have to.” The boy had the nerve to shake his head.

“Dave, look at me,” I said. He stared at me stubbornly.

“I want you to take out the trash.”

“You can get someone else to do it,” he informed.

I looked at him for a long moment, with the kind of look that says, “I mean business.” That look had moved mountains in times past, but Dave apparently was made of granite and not so easily moved.

“Dave,” I said seriously. “Go sit on the porch steps until you are willing to obey me.” For a moment I thought he was going to defy the command, but then he turned and walked out, his wondering classmates staring at his back.

I swallowed hard and tried to put a nonchalant mask on my face for the sake of the classroom atmosphere. But my face felt surprisingly stiff and frozen for such a hot day.

Although I had hoped to see Dave return to the classroom penitently, I was disappointed. He stuck it out until I dismissed the class for recess. Gathering my courage, I directed a game of walking tag in the shade of the biggest tree. I hoped that the activity would rouse Dave’s curiosity and awaken in him a willingness to cooperate. But it was not to be. Dave was neither curious nor sorry.

I stopped by to check on him when the children returned to the classroom, but he steadfastly held to his decision. He wasn’t going to take out the trash, and that was final.

“Do you realize I will have to call the principal if you refuse to obey?” I asked. He didn’t reply. I could not tell what he was thinking, but he seemed to be weighing his options.

“I’m giving you another chance, Dave,” I said, hoping for a break in the solid bank of clouds on his face. “If you willingly do as I say, I will let you off with minor punishment.”

I knew I was bribing, and I felt bad about it, but I dearly wanted to avoid dealing harshly with this unusual case. “If you don’t do what I asked you to do, you are in deep trouble.”

I waited for half a minute, but he didn’t move.

“That’s it, Dave.” My voice was quiet, but my tone was final. “You may go to your seat, and I will deal with you after school.”

My spirit groaned under the weight of this ordeal. What could be wrong with Dave? How long would it take for him to give in? How big was the issue ahead of me?

I felt a sudden sense of relief when I remembered that I could take my problem to the principal. Surely the enormity of his error would be clear to Dave when he faced the principal! I drew a breath of relief and tried to make the classroom a cheerful place for the other students until closing time.

I found the song “What a Friend We Have in Jesus” running through my mind. Oh, how good it was to have a friend like Jesus! I wondered subconsciously why the thought didn’t comfort me more in this situation. *Probably the intense heat is taking its toll.*



### Are Turtles Helpful to Man?

In reading class, my first grader and I were discussing animals that are helpful to man.

Teacher: “Can you think of any farm animals besides cows, horses, and chickens?”

Student: “Pigs!”

Teacher: “How are they helpful to us?”

Student: “By not getting out of their pens, and rolling in the mud . . . No, not rolling in the mud . . .”

Teacher: “Because if they roll in the mud, then their owners have to wash them?”

Student: “Yes.”

Reading Lightunit: “Write a sentence telling about an animal that God made to help man.”

Student: “Sheep give wool. Cows give beef. Pigs give baken. And turtles mind their own beeswacks.”

*submitted by Rachel Strubhar*



After dismissal, I called the principal. He promised to be there soon, so I took heart and went to my desk to score quizzes.

When the principal arrived, I went out to meet him. I explained what had happened.

The principal talked with Dave. “Dave, will you take out the trash for your teacher?” he asked the sulking boy. Dave shook his head.

“Can you tell me why not?” the principal asked.

Dave shrugged. “I just don’t want to.”

“Explain yourself,” the principal prodded. “Tell me why you feel that way.”

Another shrug. “I don’t know.”

The principal smiled. “So if we decide you must be punished, what would you say you are being punished for?”

“For not obeying,” Dave replied promptly.

The principal smiled again. I marveled at his patience and ability to keep calm.



“But that would not be the only reason,” the principal said.

“We’d do it because you have a problem, and if we let you off, this problem will keep coming back. You need to be freed from the problem so that you can grow up to be a better man. Does that make sense?”

Dave nodded.

“We will pray with you, and then decide your punishment,” the principal said.

As he bowed his head, shame and remorse flooded my heart. The song came back to me: “Oh, what needless pain we bear! All because we do not carry everything to God in prayer.”

I had faced a serious issue, and I had not prayed! I had not asked for wisdom, nor interceded for my strong-willed student! No wonder I had not found comfort in Jesus!

While the gentle tone of the principal brought the rebellious boy to the Lord in prayer, I prayed for forgiveness for not praying.

I heard sniffles before we were done praying. Dave was crying.

“Can you tell me about it?” the principal asked kindly.

Dave nodded, but it took more than half an hour until he told us the heartbreaking truth. His dad had left home last night.

I doubt I have ever seen a more touching sight. The principal put his arms around Dave and wept with him.

Later they took out the trash together. Dave carried it willingly, and when they came back in from the dumpster, Dave told me he was sorry for not obeying me. I forgave him gladly and told him that I would be praying for his dad. ■

*Mary taught school in Belize. “I taught all grades from first to ninth in eleven years. Then I met Justin . . . and am now a happy stay-at-home wife. I wouldn’t go back to teaching . . . but whenever I read LightLines, I find that the teacher in me is not dead, but sleeping,” she confessed. She and Justin reside in Boley, Oklahoma.*

## The Science of Learning: Part 3 | Learning Beyond Your Ken | Jonas Sauder

Teachers want their pupils to *know*. What is knowing? You can know something without knowing it. (A boy was rumored to have said, “Yes, I learned in school that the earth is round, but I never knew it.”) And you can know something without knowing that you know it. (You can use complex sentences without knowing what they are or that you are using them.)

It would be helpful if English had separate words for different kinds of knowing. German, French, and Spanish each have separate verbs to distinguish knowing *about* something from knowing *through experience*. German uses the term *wissenschaft* to name the

kind of knowing we gain through study and books and *kenntnis* to name the knowing of someone or something through experience.

In the English KJV text, about a dozen uses of *wist* survive. In Acts 23:5, Paul was not aware of (did not know) that the man he was speaking with was the high priest. “I *wist* not, brethren, that he was the high priest.” *Wist* is actually a past tense of *wit*.

Another root, *ken*, refers to knowing through human experience. In the hymn “There Waits for Me a Glad Tomorrow” by James Crutchfield, we sing, “Someday beyond the reach of mortal *ken*.” Although Adam and Eve couldn’t understand (*wist* not)

the extent of what they had done when they ate of the tree of the knowledge of good and evil, they nevertheless *knew* guilt, fear, and shame—which thereafter became part of mortal *ken*.

Returning to our opening statement, we could say that you can *wit* something without *kenning* it. (You might *understand* that the weight of the air surrounding the earth creates atmospheric pressure and yet be *unaware* that this principle enables you to drink through a straw.) And you can *ken* something without *witting* that you *ken* it. (You may have *learned* through experience to carefully balance the forces of gravity and inertia every time you lean into a curve when you ride bike, but you might not *understand* what you know.)

Daily life mostly offers *kenntnis*. We live our way into *kenning* our family, friends, and neighbors. Through play, chores, work, and other daily activities, we *ken*—firsthand—how the world around us works. The breadth of our *kenning* is affected by the type and extent of our daily experiences.

Often we don't *wit* what we *ken*. We may know (*ken*) that seeds must be stored in a cool, dry, dark place over the winter but know (*wit*) not why. That is, we may do many things without understanding. *Witting* can deepen our life experience by enlightening our daily activities with greater understanding.

Knowledge beyond our *ken* is not accessible through firsthand experience. But our horizons can be greatly broadened as we learn about things beyond our *ken* through study. That is, our *kenning* can be greatly enriched through *witting*. These deepening and enriching values of *witting* are greatly enhanced with the help of a teacher.

By their very nature, structured formal studies emphasize *wissenschaft*. To *wit* is to understand how the world that we *ken* works; to be able to explain, compare, illustrate, give examples, and make applications. We *wit* that a digit represents a much greater quantity if it's in the hundred's place than if it's in the

one's place. We *wit* that water changes from a liquid to a gas as clothing dries on a wash line. We *wit* that standard English grammar uses nominative case pronouns as subjects.

In addition to offering us understanding about how the world works, *wissenschaft* can also broaden our horizons by introducing us to realms beyond our *ken*. We learn about past eras, civilizations, peoples, and times through the stories of history. Geography introduces us to other peoples in other places and climates. Literary selections stimulate us to perceive life through different lenses.

If we remember the things we have *witted*, we do well on tests. If we *wist them not*, our test scores suffer. Much of our school learning involves *wissenschaft*.

Although *wissenschaft* can enrich our lives, it is often disparaged as “book learning” or “mere head knowledge.” Pupils can easily find it dry, boring, and irrelevant. In response, some teachers emphasize “making learning fun,” and focus on “motivation.” Some cut back on the amount of learning they expect of pupils to avoid overwhelming them. (In the broader culture, critics label this response as “dumbing down” the curriculum.) Others attempt to emphasize experiential learning through hands-on, project-based curricula.

How shall we deal with the paradox of balancing *witting* and *kenning*? We do well to remember that pupils live most of their time in their homes, *kenning* life, while schools as we know them are designed to help pupils to *wit*. A problem arises if pupils get the feeling that the two worlds of home and school are different universes that have nothing to do with each other. When that happens, some pupils profess boredom and lose heart for schoolwork. Others may find school quite interesting but still fail to relate what they learn in school with anything in “real life” outside of school. Both fail to connect what they learn (*wit*) inside the four walls of the classroom with anything they *ken* outside of those walls.



### World Book Day

April 23 is World Book Day—a day to celebrate books and authors and to encourage reading good literature. According to a study in England just before World Book Day last year, only 26 percent of children under eighteen spend some time reading every day. This is the lowest level of reading participation since 2005. The study also found that reading enjoyment dwindled with age: five- to eight-year-olds were twice as likely to take pleasure from reading as fourteen- to sixteen-year-olds.

While this study may have been conducted in England, could we safely assume that the United States and Canada would have similar findings? One wonders what we would find if a similar

survey of private and Christian schools was conducted. What do you do to encourage reading good literature?

Source: <https://www.theguardian.com/education/2020/feb/29/children-reading-less-says-new-research>

### Perfect Attendance

Two teachers were startled when a young buck crashed through a window into a sixth-grade classroom in Fort Wayne, Indiana. The deer left shattered glass and a trail of blood, but stayed in class for about half an hour until police broke out more of the window glass to give the deer more room to escape. The teachers were not injured, and no students were in the classroom when the deer came to school, but the deer hurt one of its legs.

Source: APNews



Wise teachers are fully aware that effective learning is integrated. They are personally immersed in the subject at hand (*wissenschaft*) to the degree that it has become part of their personal *kenning*. They not only *wit* the subject, they *ken* it. And they want their pupils to do both.

To teach effectively, teachers also know (*ken*) their pupils. They use their knowledge of their pupils' outside-of-school experiences to help illuminate the lessons at hand. They stimulate their pupils to make connections between the subjects in their school books to everyday life. *Kenning* is enriched by *witting*. Let's consider a few examples.

We *wit* that levers can be first, second, or third class, based on the location of the effort, fulcrum, and resistance. Meaning is added to these facts by recognizing each class in something within our *ken*, such as a seesaw, wheelbarrow, and baseball bat. Yet another step is to learn (*wit*) that the skeletal structure of the body we know (*ken*) actually utilizes each of these three types of levers. Do you “know” where each can be found at work in your own body?


We *ken* that pies are often cut into six pieces to serve them for a meal. Do you *wit* what fraction of a pie you would eat if you ate two of those pieces?

We *wit* that Thomas Edison was a famous inventor. Have you *witted* which of his inventions are part of your *kenning*?

We *ken* that distant objects seem smaller and closer together than they actually are. Do you *wit* how to illustrate this on paper through the use of perspective drawing?

We *ken* the main highways and roads we routinely travel in our communities. Do you *wit* which roads in your area are the oldest, and why they were first built there?

We *wit* that not all English sentences are voiced in the same manner. You *ken* how to ask a question properly. Do you *wit* whether you raise or lower your voice at the end of a question?

A major part of teaching involves helping pupils connect their new *witting* with their *kenning*. What they *wit* can deepen and enrich their *kenning*. But the connection must be made in order for them to *ken* with understanding. 

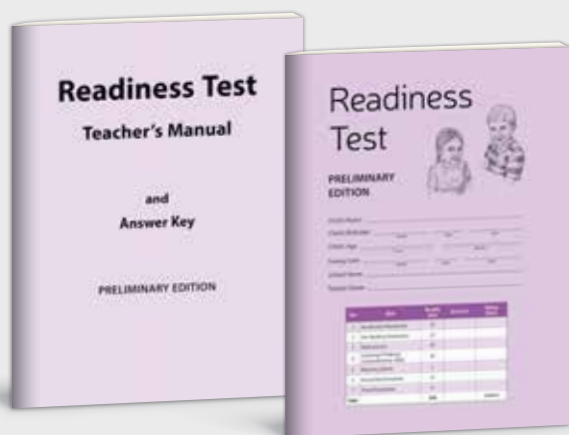
*Since retiring from forty years of teaching and administration in Christian schools, Jonas continues working in curriculum development and assisting with teacher workshops for Christian Light. He also teaches classes in summer term at Faith Builders in Pennsylvania. He and his wife Rebecca live near Lancaster, Pennsylvania. They have five children and nineteen grandchildren. Jonas enjoys teaching, gardening, and poetry.*

## Teacher Training

New teachers and teachers wanting a boost of inspiration are invited to consider attending a teacher training session this summer. Alumni might consider taking the Level 2 course, which includes a study of “Seven Laws of Teaching” by John Milton Gregory. Schools should receive a 2021 Teacher Training brochure soon. Be sure to register early.

## Retaking a Quiz or Test?

When students need to retake a quiz or test in Christian Light Education material, schools may copy that quiz or test. However, we recommend that, where provided, the student take the Alternate LightUnit test instead of taking the same one again.



## Preliminary Readiness Test

This test evaluates a child's skills in listening, matching, word meanings, rhyming, alphabet, numbers, and copying to determine if they are academically ready for first grade. It evaluates readiness for first grade and not readiness for Christian Light curriculum. It is not dependent on having done kindergarten. The Teacher's Guide provides answers and easy-to-follow instructions to administer and evaluate the test.



*“Ask Another” is a question-answer space for teachers. Teachers are invited to pose questions on school-related subjects, offer responses to questions, or reply to responses. (LightLines will occasionally assign questions to experienced teachers for their qualified response.) Send questions or responses by e-mail to [lightlines@christianlight.org](mailto:lightlines@christianlight.org) or by mail to LightLines Editor, P.O. Box 1212, Harrisonburg, VA 22803. (Try to limit responses to fewer than 400 words.)*

## Ask Another

**Question (From Ask Another - Fall 2020):** I often feel overwhelmed and struggle to stay on top of things in my multigrade classroom (Grades 4-5). It seems I don't stretch around far enough. Does anyone have any strategies and tips for efficient multi-grade classroom management?

### **Analyze your schedule and consider how your time is spent.**

- Often simply rearranging some classes can eliminate bottlenecks.
- Evaluate how you are *actually* spending class time—not just what you have on paper. Identify time wasters and work to eliminate them.
- Prepare well. Much wasted class time is due to inadequate teacher preparation.
- Expect to spend 90 percent of your available time with 10 percent of the students. If more than 10 percent of your class needs more than 90 percent of your attention, you will just have a busy term.

—LightLines Staff

### **Keep things as simple as possible.**

- With the permission of your administration, combine several grades in subjects such as social studies, science, and Bible or eliminate a LightUnit or two in these subjects to make more time to teach math, reading, and language.
- Teach the material well. If you spend more time helping individual students figure out how to do the lesson than you spent teaching the class, you probably did not do a thorough job of presenting the lesson.
- If several students are struggling over the same questions, call a time-out and go over the questions with the whole class.

- Don't neglect review and drill. Take time to consistently review concepts, vocabulary, math facts, formulas, etc. This will save you and the students time in the long run.
- Instruct one grade to start with the review sections (We Remember, Looking Back) while you teach the other grade their new lesson.
- Teach students to pay attention. Use signals to gain their attention. Use their names to keep their attention. Involve as many students as possible during class time, then require that they pay attention. (This is not easy. It involves work and patience on the part of both teacher and student.)
- Involve students as much as possible. Give them responsibilities. The teacher does not need to perform all the tasks if a student could do them just as well. This could include daily jobs, recess setup, passing out books, flashcard practice, and more.
- Be aware that teaching is hard work. It's not a job that you can do well and keep up daily social life or hold a second job.

—LightLines Staff

**Next question:** *I have two students in grades four and five who don't sing on key. They can match my voice, but in general classroom singing they just drone or sing in a different key. How can I help them to learn to sing on key?*

**Please send your responses to LightLines by April 15, 2021.** [LL](https://www.lightlines@christianlight.org)

*Answers will appear in the Summer 2021 issue of LightLines.*

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