

# Awake!

FEBRUARY 2012



## What Should You Know About **Social Networking?**

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PRAY TO GOD? PAGE 12



## WHAT SHOULD YOU KNOW ABOUT SOCIAL NETWORKING?

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# Awake!

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# Connected!

● Consider this imaginary scenario. People called Sam the holdout. For years, he refused to get involved with the new technology as a way of keeping in touch with family and friends. Everyone, even Sam's teenage children, said that they wanted to be connected. Sam teasingly said to his 16-year-old daughter, "I miss the days when people would talk to you face-to-face!"

Then Sam started to reconsider his stance. He thought about people he had neither seen nor talked to in years. He thought about family members who seemed so busy that he no longer felt connected with them. 'If I want to stay in touch with all these people,' Sam thought to himself, 'I might have to start doing it the new way.' It was the mid-20th century in the rural United States. Sam, the holdout, was finally thinking about getting a telephone.

Fast-forward this scenario to 2012. Sam's grandson Nathan has just finished talking on the phone to Roberto and Angela, close friends of his who had moved to the other side

of the world. 'That was ten years ago!' Nathan says to himself, amazed at how quickly the time had passed.

Over the years, Nathan has been content with an occasional phone call from family members and friends who have moved far away. Now, though, it seems that everyone—including Nathan's teenage children—use a social network to keep in touch.

People call Nathan a holdout because he refuses to jump on the technology bandwagon. "I miss the days when you would talk on the phone and hear a person's voice," he says. But now Nathan is starting to reconsider. 'If I want to stay in touch with all these people,' he says to himself, 'I might have to start doing it the new way.'

Have you felt the way Nathan did? By nature, humans like to communicate with each other. (Genesis 2:18; Proverbs 17:17) Since so many are doing so by means of social networks, what should you know about this technology?

# What Is the Appeal?



**W**HICH methods of communication below have *you* used during the past month?

Face-to-face conversation	Handwritten letter or card
Phone call	E-mail
Text message	Instant message
Video chat	Social network

Never have there been so many options for keeping in touch, each one with its advantages and disadvantages. Consider a few examples:

## FACE-TO-FACE CONVERSATION

**Advantage:** Includes all the subtle nuances of facial expression, tone of voice, and gestures.

**Disadvantage:** Both parties must be available to talk.

## HANDWRITTEN LETTER OR CARD

**Advantage:** Warm and personal.

**Disadvantage:** Takes time to write and days to reach the recipient.

## E-MAIL

**Advantage:** Can be composed and delivered quickly.

**Disadvantage:** Emotion is often lacking—or easy to misinterpret.

Enter social networking, which some say is the *best* way to keep in touch. Hundreds of social networks exist, and the most popular one—Facebook—has some 800 million members! “If Facebook were a country,” says *Time* magazine, “it would be the third largest, behind only China and India.” What are social networks, and why have they become so popular?

A social network is a Web site that allows users to share information with a selected group of friends. “It’s a great way to stay connected,” says 21-year-old Jean. “Social networking is also a convenient way to share photos from trips or events.”

Why not just write a letter? ‘Too time-consuming,’ some would answer—and it is expensive if you have to make copies of photos. Why not use the phone? Again, too

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time-consuming—especially since you have to call one person at a time, and some will not be at home or available to talk when *you* are. What about an e-mail? “No one answers e-mails anymore,” complains 20-year-old Danielle, “and even if they do, getting a reply can take *weeks*. On a social network, I just post a comment about what I’m doing, and my friends can post comments about their day. We’re all updated as soon as we log on. It’s easy!”

Not that social networking is all idle chit-chat. For example, when a disaster strikes—such as the earthquake and tsunami that devastated parts of Japan on March 11, 2011—many turn to social networks to find out about the welfare of their loved ones.

Consider the experience of Benjamin, who lives in the United States. “Phone lines were down after the tsunami in Japan,” he says. “An acquaintance told me that he had e-mailed a mutual friend of ours in Tokyo, but he hadn’t heard back from her. At that moment, I picked up my cell phone and, accessing the Internet, went to her social network page. Right then and there, I saw a brief message she had posted saying that she was OK and that she would provide further details later.”

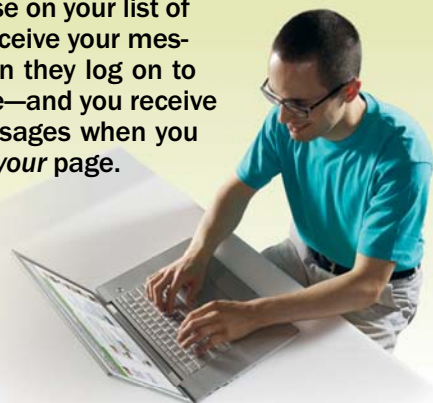
Benjamin continues: “As for contacting my friends who knew her and who *didn’t* have a social network page, I had to e-mail them individually. It took time to track down their addresses and to write to each one. I received

## HOW IT WORKS

1. Post a message (status update) on your page.



2. All of those on your list of friends receive your message when they log on to their page—and you receive *their* messages when you log on to *your* page.



several responses within a few days. One person took about two weeks to respond! Those people were getting so many e-mails from everyone that it was hard for them to keep up. So much time could have been saved by social networking. Within minutes, everyone could have been brought up-to-date!”

Clearly, social networking has some advantages. But are there any dangers? If so, what are they, and how can you avoid them?

**LANGUAGES:** Afrikaans, Albanian, Amharic, Arabic, Armenian, Bislama, Bulgarian, Cebuano, Chichewa, Chinese (Simplified), Chinese (Traditional)\* (audio Mandarin only), Chitonga, Cibemba, Croatian, Czech,\* Danish,\* Dutch,\* English,\* Estonian, Ewe, Fijian, Finnish,\* French,\* Georgian, German,\* Greek, Gujarati, Hebrew, Hiligaynon, Hindi, Hungarian, Icelandic, Igbo, Iloko, Indonesian, Italian,\* Japanese,\* Kannada, Kinyarwanda, Kirghiz, Kirundi, Korean,\* Latvian, Lingala, Lithuanian, Macedonian, Malagasy, Malayalam, Maltese, Myanmar, Norwegian,\* Polish,\* Portuguese,\* Punjabi, Rarotongan, Romanian, Russian,\* Samoan, Sepedi, Serbian, Sesotho, Shona, Silozi, Sinhala, Slovak, Slovenian, Spanish,\* Swahili, Swedish,\* Tagalog,\* Tamil, Thai, Tok Pisin, Tongan, Tswana, Tswana, Turkish, Twi, Ukrainian, Urdu, Vietnamese, Xhosa, Yoruba, Zulu

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## Four Questions You Should Ask About Social Networking

As with virtually any use of the Internet, social networking has its dangers.\* With that in mind, consider the following questions.



### 1 How Does Social Networking Affect My Privacy?

*“In the abundance of words there does not fail to be transgression, but the one keeping his lips in check is acting discreetly.”—Proverbs 10:19.*

**What you should know.** If you are not careful, your profile information, photos, status updates (short messages to everyone on your list of friends), and comments (your replies to others’ status updates) could reveal too much. For example, they might reveal such things as where you live, when you are (and are not) at home, where you work, or where you go to school. Your address along with a brief post such as, “We leave for vacation tomorrow!” is enough to tell a thief where and when to strike.

Other details—for instance, your e-mail address, your date of birth, or your phone num-

ber—could leave you open to harassment, bullying, or identity theft. Yet, many people readily divulge such information on their social networking page.

People tend to forget that once they post something online, it is in the public domain. Even if they specify that their status updates are to be shared with “Friends Only,” they have no control over what those friends might do with the information. Really, anything posted on a social network should be viewed as public or as material that can easily *be made* public.

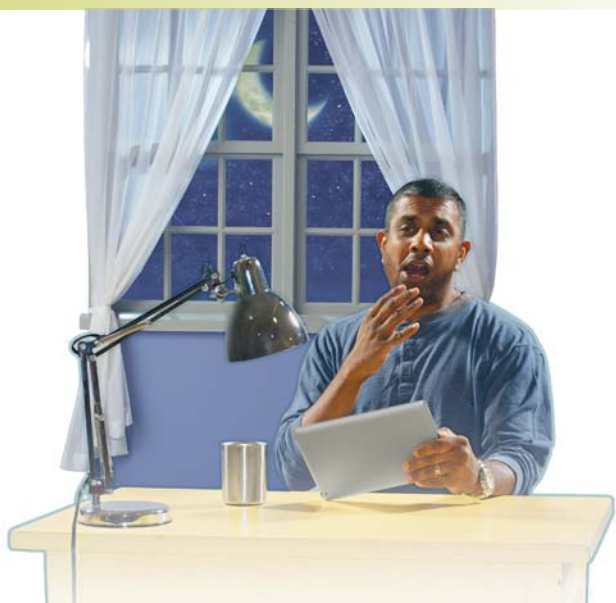
**What you can do.** Be thoroughly familiar with the privacy settings on your social network, and use them. Restrict access to your status updates and photos to people you know and trust.

Even then, realize that what you post can be made more public than you intend. Regularly review your page, and ask yourself whether anything you have revealed could be used by unscrupulous individuals to locate you or to steal your identity. Even among your friends, do not post information that could violate your privacy or the privacy of another person. (Proverbs 11:13) If you have sensitive information to relate, use another form of communication. “Talking on the phone is way more personal and far less exposing,” says a young woman named Cameron.

**The bottom line.** A woman named Kim sums it up well. “If you are mindful of what you are doing,” she says, “you can maintain a measure of privacy on a social network. It doesn’t lead to trouble unless you let it.”

\* *Awake!* neither endorses nor condemns any particular social networking site. Christians should be sure that their use of the Internet does not violate Bible principles.—1 Timothy 1: 5, 19.





## 2 How Does Social Networking Affect My Time?

*“Make sure of the more important things.”—Philippians 1:10.*

**What you should know.** Social networking can consume your time and distract you from more vital activities. As a woman named Kay puts it, “the more contacts you have, the more time you will spend social networking and the more addictive it can be.” Consider comments from some who say that they were caught in the trap.

“It’s hard to get off a social networking site, even when you don’t really like it. It’s almost like an obsession.”—Elise.

“There are so many things to do—games, tests, music fan pages—not to mention checking out all your friends’ profile pages.”—Blaine.

“It’s a vortex that sucks you in, and you have no idea you’ve been caught until your mom comes home and asks you why the dishes haven’t been done.”—Analise.

“I found myself wanting to get home from school as soon as possible just to see who had responded to my posts. And then I had to reply to all those people and look at all the new photos they had uploaded. I’d get in a really bad mood when I was online, and I hated being interrupted. Some people I know are on the site almost all the time—even when they’re out socializing with others at their houses and at crazy times during the night!”—Megan.

**What you can do.** Time is a commodity that you cannot afford to waste. So why not set a budget for it, just as you would for your money? First, write down an amount of time that you feel would be reasonable to spend networking. Then track yourself for a month, and see how well you kept your resolve. Make adjustments where needed.

If you are a parent and your adolescents are spending excessive time with social networking, try to discern if there are any underlying issues. For example, in her book *Cyber-Safe Kids, Cyber-Savvy Teens*, Nancy E. Willard points out that overuse of social networking may be linked to anxiety, stress, and low self-esteem. “Many teens are highly concerned about their social status,” she writes. “If teens measure their social worth based on the level of electronic communication activity with friends, this can fuel addiction.”

Never let social networking—or *any* online activity, for that matter—interfere with the friendships you should be cultivating within your own household. “One of the ironies of the Internet,” writes Don Tapscott in his book *Grown Up Digital*, “is that while it makes staying in touch easier when family members are physically apart, it can also keep them apart when they’re at home.”

**The bottom line.** A girl named Emily says: “I think social networking is a great way to stay in touch with people. But, as with anything else, you just have to know when to shut it down.”



## 3

### How Does Social Networking Affect My Reputation?

*"A good reputation and respect are worth much more than silver and gold."  
—Proverbs 22:1, "Contemporary English Version."*

## SIGN OUT!

If you leave your account signed on when you are not present, you run the risk that others will post material on your page. According to attorney Robert Wilson, that is "the equivalent of leaving your wallet or cell phone in public on the picnic table. Anyone can sit down and start making posts to your Wall." His advice? "Be sure to sign out."

## INVITING TROUBLE?

A survey by *Consumer Reports* revealed that many social network users "take risks that can lead to burglaries, identity theft, and stalking. Fifteen percent had posted

their current location or travel plans, 34 percent their full birth date, and 21 percent of those with children at home had posted those children's names and photos."

**What you should know.** What you post on a social network carves out a reputation for you that may be difficult to erase. (Proverbs 20:11; Matthew 7:17) Many seem oblivious to the potential danger. "It seems that when people go on a social network, they lose their sense of reason," says a young woman named Raquel. "They say things that they normally wouldn't say. Some don't realize that with one distasteful post, their good reputation can be ruined."

Damaging your reputation on a social network can have long-range consequences. *Grown Up Digital* states: "Stories are legion of social network site users losing their jobs or being turned down for new jobs because of what they have posted online."

**What you can do.** Look at your social network page and try to see it the way others would see it. Ask yourself these questions: 'Is this how I really want to be viewed? If someone looked at my posted photos and had to describe my character as they perceived it, what terms would likely come to that person's mind? "Flirty"? "Sexy"? "Party animal"? If so, is that the way I want to be seen when I apply for a job, for example, and my prospective employer looks at my page? Do these pictures really represent the values I stand for?'

If you are a young person, ask yourself: 'What if my parents, a teacher, or an adult whom I look up to viewed my page? Would I be embarrassed at what they could see and read?'

**The bottom line.** When it comes to your reputation, remember the words of the apostle Paul: "You will reap exactly what you plant." —Galatians 6:7, *Good News Translation*.





## 4 How Does Social Networking Affect My Friendships?

*“He that is walking with wise persons will become wise, but he that is having dealings with the stupid ones will fare badly.”—Proverbs 13:20.*

**What you should know.** Your friendships influence how you think and act. (1 Corinthians 15:33) So it only makes sense to be selective about whom you befriend on a social network. Some accept dozens or even hundreds of friend requests from people they hardly know—or do not know at all. Others discover that not all on their list of friends are good associates. Consider what some have said.

“If a person accepts friend requests from every Tom, Dick, and Harry, he or she is bound to get into trouble.”—Analise.

“Many people I know will add friends that they don’t really want, but they say they don’t want to hurt the person’s feelings by ignoring the request.”—Lianne.

“It’s just like associating with those people in person. You have to be careful about who your friends are.”—Alexis.

**What you can do.** Set up a ‘friending policy.’ For example, some have put limits on themselves with regard to friendships:\*

“I only allow people to be my friend if I know them—not just *recognize* them—but actually *know* them.”—Jean.

“I only friend people I have known for a long time. I never add strangers.”—Monique.

“I like to add only those whom I know quite well and whose standards I know match mine.”—Rae.

“If I receive a friend request from someone I don’t know, I ignore the request. It’s as simple as that. All my friends are people I know and am already friends with *outside* the online world.”—Marie.

“If a friend starts posting pictures or status updates that I find objectionable, I don’t feel bad at all about deleting that person. Even if you are just viewing their posts, it’s bad association.”—Kim.

“When I had a social network account, I had very strict privacy settings. I would not allow friends of friends to see my posts or pictures—just my friends. I did this because I didn’t know for certain whether the friends of my friends were OK for me to associate with. I didn’t know them—or their reputation.”—Heather.

**The bottom line.** Dr. Gwenn Schurgin O’Keeffe writes in her book *CyberSafe*: “The best guideline is to only friend people you know and have a connection with off-line.”#

\* In this article, we are discussing casual friendships, not business associations.

# For more information on social networking, see *Awake!* issues of July 2011, pages 24-27, and August 2011, pages 10-13.

# A UNIQUE PAPER CITY

**'A** CITY built of paper?" you ask. Yes, but not a real city, a scale model. The city is Prague, capital of the Czech Republic, and the model is preserved in the Prague Municipal Museum. The builder was Antonín Langweil, who worked on his model for 11 years, from 1826 to 1837, the year he died. What prompted Langweil to embark on such a difficult project?

Langweil was born in 1791 in the town of Postoloprty in what is now the Czech Republic. After studying lithography at the Art Academy in Vienna, Austria, he opened Prague's first lithographic workshop. As a businessman, however, he was unsuccessful, and his

business failed. In 1826, while attending an exhibit in Prague, he saw a plaster model of the city of Paris, France. Inspired by what he saw, Langweil decided to create a model of Prague, using cardboard and a little wood.

First, though, Langweil spent several years meticulously recording details of Prague.

He walked every street, making sketches and noting the exact location of buildings, park benches, sheds, statues, and trees. He even included barrels he saw on the ground, broken windows, a ladder leaning against a wall, and piles of wood! Then he started to build his model, working to a scale of 1:480. To supplement his meager

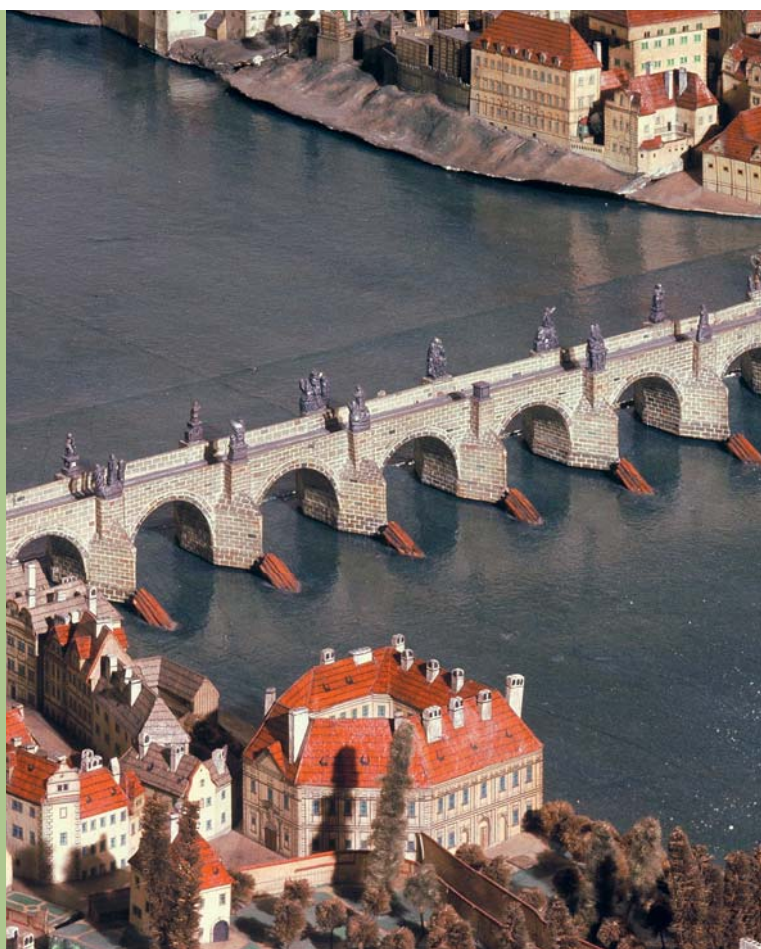


**Antonín Langweil**

**Langweil's paper model of the city of Prague ▼**



**Close-up view of Langweil's ► paper model**





income, he also made models of the homes of nobles.

In 1837, Langweil became ill with tuberculosis and died in June of the same year, leaving behind a wife and five daughters. Three years later, his model found a home in the Patriotic Museum, now called the National Museum. How did it get there? In 1840, Langweil's widow offered to sell the model to Emperor Ferdinand I, who purchased it and then generously donated it to what is now the Czech Republic's national museum. It arrived in nine crates. Later, a spokesman for the City of Prague Museum, where the model now resides, stated: "Langweil's model was exhibited only occasionally in the 19th century. In 1891 it was one of the exhibits in the Provincial Jubilee Exhibition. To mark this occasion it underwent costly repairs . . . From 1905 the model was part of the permanent exhibition in the National Museum's Lapidarium."



## A Magnet for Historians

Langweil's paper model is extremely popular. Measuring 18.9 feet (5.76 m) by 10.6 feet (3.24 m), it is sealed in a glass display case and illuminated with numerous tiny lights suspended inside the case. The "city" looks so real that you almost have to remind yourself that you are looking at a model! Indeed, Langweil constructed each of the more than two thousand miniature buildings with painstaking accuracy.

For example, Langweil gave the buildings a land-registration number. He added street lanterns, gutters, and cobblestones. And he faithfully reproduced churches with their stained-glass windows—including missing or broken panes. In places where the plaster had chipped off houses, his model shows the underlying bricks. He also added the Vltava River, which winds its way through Prague.

Today, Langweil's paper model is not only an interesting museum artifact but also a magnet for art lovers and for historians who want to see how Prague has changed over time. Understandably, parts of the city look quite different because of building reconstruction or renovation, especially the Jewish quarter and a section of Prague called Old Town. Thanks to modern technology, Langweil's model has now been digitized, allowing visitors to see the Prague of 1837 in the form of an interactive computer model.

In April 1837, an ailing Langweil asked if his model could be placed in what was then called the Patriotic Museum, but the museum was not interested. How this must have disappointed him! Imagine, though, if he could visit the museum today or "stroll" through his old Prague on a computer screen. No doubt he would feel that his painstaking efforts were not in vain.

ANSWERS TO PAGES 30 AND 31  
1. Sacrificial bull. 2. Flour. 3. Jar of wine. 4. 4,200.  
5. B.



## How Should We Pray to God?

**T**O ADDRESS the Almighty and share our most intimate thoughts with him is an inestimable privilege. Yet, many people are unsure about how to pray, and others want to improve their prayers. Some of Jesus Christ's early followers were evidently concerned about the quality of their prayers. One of them said to him: "Lord, teach us how to pray." (Luke 11:1) Jesus responded by giving a model prayer, often called the Lord's Prayer or the Our Father. That beautiful, yet simple, prayer not only helps us to address God in an acceptable way but also sheds light on the main message of the Bible.

### Jesus' Model Prayer

Jesus said: *"You must pray, then, this way: 'Our Father in the heavens, let your name be sanctified. Let your kingdom come. Let your will take place, as in heaven, also upon earth. Give us today our bread for this day; and forgive us our debts, as we also have forgiven our debtors. And do not bring us into temptation, but deliver us from the wicked one.'"*—Matthew 6:9-13.

Note that Jesus said: "You must pray, then, this way." The point? Jesus did not want his followers to parrot his words, or recite them. Indeed, he had just discouraged this practice. (Matthew 6:7) Rather, his prayer is a lesson in priorities—what is important in God's eyes, not just ours. In order to understand what those priorities are, we need to grasp the meaning of Jesus' words. Let us, then, examine his words point by point.

### The Model Prayer Explained

**"Our Father in the heavens, let your name be sanctified."** Jesus rightly addressed God

as "Father" because He is loving and protective, like a good human father. He also has a personal name—Jehovah—which should not be confused with his many titles, such as Almighty, God, and Lord.\* (Psalm 83:18) Why, though, does God's name, which involves his reputation, need to be sanctified, or made holy? Because it has been reproached and slandered.

Some people blame God for their trials, when the real cause may have human roots or can be attributed to their simply being in the wrong place at the wrong time. (Proverbs 19:3; Ecclesiastes 9:11) Others have accused God of causing natural disasters. However, the Bible says that "with evil things God cannot be tried nor does he himself try anyone." (James 1:13) And many religions teach that God punishes the bad by torturing them forever in a fiery hell, a teaching that surely offends the God of love. (Jeremiah 19:5; 1 John 4:8) "The wages sin pays is death," says Romans 6:23, not eternal torture!#

**"Let your kingdom come."** God's Kingdom is a royal government in the hands of Jesus Christ, its King. He will soon take full control of the entire earth. "To him there were given rulership and dignity and kingdom," says Daniel 7:14. God's Kingdom will "come" when it intervenes in human affairs, crushing all opposing rulerships and taking full control of the earth.—Daniel 2:44.

\* In the original languages of the Bible, mainly Hebrew and Greek, the divine name occurred some 7,000 times. Sadly, many modern versions use God's titles instead of his holy name.

# The dead are not alive in some other form but are 'sleeping,' or "conscious of nothing at all," as they await a future resurrection.—John 5:28, 29; 11:11-13; Ecclesiastes 9:5.



**Jesus' model prayer can help you set priorities that are important in God's eyes, not just yours**

**"Let your will take place, as in heaven, also upon earth."** Under Kingdom rule, mankind will submit to the will of God. As a result, genuine peace will prevail and all humans will worship God in harmony with truth. Divisive politics and false religion will be no more. Figuratively speaking, "the tent of God" will be "with *mankind*," says Revelation 21:3, 4, "and he will wipe out every tear from their eyes, and death will be no more, neither will mourning nor outcry nor pain be anymore. The former things have passed away."

**"Give us today our bread for this day."** Having given priority to God's name and Kingdom, Jesus then turned his attention to our needs. His words indicate that we must avoid striving after much more than we need "for this day." Instead, we ought to heed the ad-

vice found at Proverbs 30:8: "Give me neither poverty nor riches. Let me devour the food prescribed for me."

**"Forgive us our debts, as we also have forgiven our debtors."** Here, the word "debts" means "sins."\* We all owe God obedience. So when we disobey him, or sin against him, we accumulate debt, as it were. Jehovah, though, is willing to forgive that debt when we kindly forgive those who sin against us.—Matthew 18:21-35.

**"Do not bring us into temptation, but deliver us from the wicked one."** "The wicked one" is Satan the Devil, also called "the Tempter." (Matthew 4:3) Because our imperfect flesh is weak, we need God's help to resist Satan and his human agents.—Mark 14:38.

May Jesus' model prayer help you to improve your prayers, perhaps by adjusting your priorities. How, though, does Jesus' model prayer shed light on the main message of the Bible? In harmony with Jesus' words, the main theme of the Bible is the sanctification of God's holy name, the removal of all wickedness, and the peaceful rulership of the earth by God's Kingdom. Yes, what spiritual riches Jesus packed into his model prayer!

\* See Luke 11:4, where the two words are used interchangeably.

#### HAVE YOU WONDERED?

- What did Jesus mean when he said: "You must pray, then, this way"?  
—Matthew 6:9.
- As a general pattern, what matters ought to come first in our prayers?  
—Matthew 6:9, 10.
- What are "our debts," and why should we forgive people who sin against us?  
—Matthew 6:12.





# WISDOM FOR THE EYE

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● The human eye is a work of art. But it is more than beautiful. It is also powerful. The book *Visual Impact, Visual Teaching* says that “forty percent of all nerve fibers connected to the brain are linked to the retina,” a thin, complex tissue that lines the inside of the eye.

Jesus Christ rightly called the eye “the lamp of the body.” Explaining what he meant, he continued: “If . . . your eye is simple [sincere, focused on good], your whole body will be bright; but if your eye is wicked, your whole body will be dark.” (Matthew 6:22, 23) By these words, Jesus was impressing upon us the power of the eye, figuratively speaking, to incite thoughts, feelings, and actions. Good thoughts illuminate one’s life; bad thoughts darken it.

For example, consider Jesus’ words found at Matthew 5:28, 29: “Everyone that keeps on looking at a woman so as to have a passion for her has already committed adultery with her in his heart. If, now, that right eye of yours is making you stumble, tear it out [figuratively speaking].” His point? A wandering eye can inflame wrong desires to the point that, given the opportunity, a person might commit immoral acts and lose God’s favor.—James 1:14, 15.

How much better to exercise self-control, even if doing so is as hard as tearing out an eye! After all, is it worth sacrificing everlasting life for merely a few fleeting moments of sensual pleasure?

What we feed the eye can also foster greed. Hence, the Bible warns us that the selfish “desire of the eyes . . . does not originate with the Father, but originates with the world. Furthermore, the world is passing away and so is its desire, but he that does the will of God remains forever.”—1 John 2:16, 17.

Is the Bible being unduly restrictive? Not at all! To disregard its standards is to invite problems and unhappiness. (Galatians 6:7, 8) To heed God’s Word, including its wisdom for our figurative eye, is to sow happiness. “Happy are those hearing the word of God and keeping it,” said Jesus. (Luke 11:28) What is more, they have the prospect of remaining forever on earth, whereas those who cultivate an immoral or greedy eye lose out on both happiness and life.



# THE “GLORY” OF STARS



**H**AVE you ever gazed in wonder at the thousands of stars visible on a clear night? As you looked at those twinkling points of light, you may have noticed that they vary in brightness and even in color. “Star differs from star in glory,” the Bible correctly states.—1 Corinthians 15:41.

Why do stars differ in their glory, or radiance? Why, for example, do some look white and others blue, yellow, or red? And why do they twinkle?

Stars hold within their core immense nuclear furnaces that generate enormous amounts of energy. That energy migrates to the star’s outer layers, where it radiates into space, largely as visible light and infrared rays. Hotter stars, you may be surprised to learn, are blue, whereas cooler stars are red. Why the color difference?

Light can be thought of as a stream of particles, called photons, which also behave as waves of energy. Higher temperature stars emit higher energy photons, which have the shorter wavelengths found at the blue end of the spectrum. Conversely, cooler stars give off lower energy photons, which are toward the red end of the spectrum. Our own star, the Sun, lies toward the middle because it emits a larger amount of light in the green-to-yellow range. Why, then, does it not look greenish? It emits a lot of light in the other visible wavelengths as well. The net result, when viewed from space, is a white sun.

## Earth’s Atmosphere “Colors” the Sun

We see the sun through the filter of the atmosphere, which alters the sun’s appearance to varying degrees, depending on the time of day. At midday, for example, the sun normally has a bright-yellow hue. But at sunrise and sunset, when it sits low on the horizon, it may appear orange or even red. This color change occurs because of gas molecules, water vapor, and various microscopic particles in earth’s atmosphere.

Because of its composition, the atmosphere scatters blue and violet solar light, producing a gorgeous blue sky on a clear day. With blue and violet subtracted from the sun’s visible spectrum, the remaining direct sunlight at midday is dominantly yellow. But when the sun is very low on the horizon, its light travels through the atmosphere at a sharp angle before it reaches us. As a result, sunlight passes through more of the atmosphere, which now scatters even more light in the blue range, as well as green light. Hence, the setting sun may appear as a magnificent red or crimson ball.

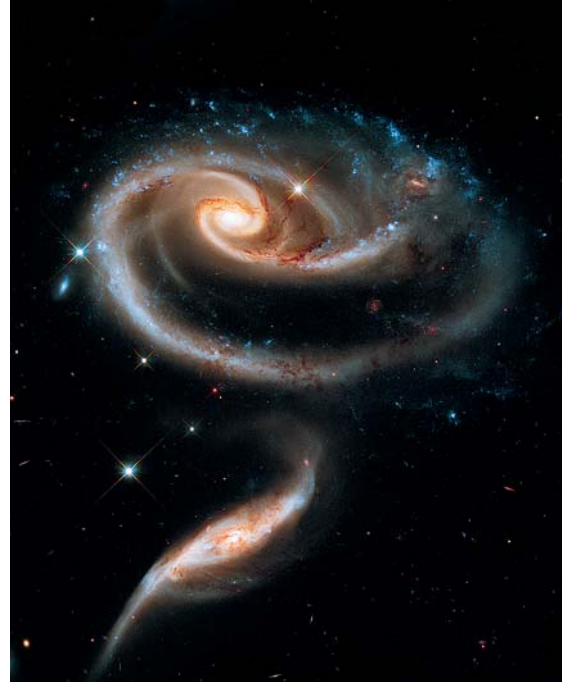
## The Colorful Night Sky

Our view of the night sky is influenced considerably by the sensitivity of our eyes. Our eyes receive light through two kinds of sensors—cones and rods. Cones distinguish color, but in very dim light, they stop functioning. The rods, however, while not sensitive

▲ NASA, ESA, and the Hubble Heritage (STScI/AURA)-ESA/Hubble Collaboration



■ *The star V838 Monocerotis*



■ *Interacting galaxies Arp 273*

to color, are extremely efficient photoreceptors. Indeed, under optimal conditions, a rod may be triggered by a single photon of light! The sensitivity of our rods, though, is shifted toward the shorter wavelengths found at the blue end of the spectrum. As a result, when, with the naked eye, we look at faint stars of the same brightness, we will likely see the blue ones but not the red ones. Thankfully, though, we are not restricted to the naked eye.

Binoculars and telescopes increase our ability to see faint objects in the night sky, such as stars, galaxies, comets, and nebulae. Even so, our view is somewhat compromised

by the atmosphere. A solution to this problem is the Hubble Space Telescope, or HST, which is in orbit around the earth. A technological marvel, the HST can detect objects that are just one ten-billionth as bright as the faintest stars visible to the naked eye! As a result, the HST has produced truly stunning views of objects in deep space, including galaxies and clouds of interstellar dust and gas called nebulae.

That said, new earth-based telescopes now rival and even exceed the HST in certain ways. For example, using ingenious corrective techniques for the effects of the atmo-

V838: NASA, ESA, and H. Bond (STScI); Arp 273: NASA, ESA, and the Hubble Heritage Team (STScI/AURA)

## WHY DO STARS TWINKLE?



Stars twinkle, or appear to change slightly in brightness and location, because of disturbances in earth's atmosphere. To illustrate, imagine tiny points of light on the bottom of a swimming pool. What happens to those lights as ripples pass over them? Yes, they twinkle, just as stars do. Larger lights, on the other hand, would be less disturbed. Planets are like those larger lights, not because they are bigger than stars, but because they are much closer to the earth and thus seem bigger.

sphere, these new telescopes enable astronomers to see in greater resolution, or detail, than they can by means of the HST. One example is the W. M. Keck Observatory on the island of Hawaii, which houses the Keck I telescope, one of the largest optical telescopes in the world. By means of this telescope, astronomer Peter Tuthill of the University of Sydney, Australia, discovered dust clouds being ejected by binary-star systems in the Sagittarius constellation, which from our viewpoint appears to be near the center of our galaxy, the Milky Way.

The deeper that astronomers peer into space, the more stars and galaxies they find. How many are out there? We can only guess. But that is not so of our Creator, Jehovah God. “He is counting the number of the stars; all of them he calls by their names,” says Psalm 147:4.

The prophet Isaiah made similar expressions. In fact, he went a step further, stating with remarkable scientific accuracy that the material universe is a product of God’s infinite energy. “Raise your eyes high up and see,” Isaiah wrote. “Who has created these things? It is the One who is bringing forth the army of them even by number, all of whom he calls even by name. Due to the abundance of *dynamic energy*, he also being vigorous in power, not one of them is missing.”—Isaiah 40:26.

How did Isaiah, who lived some 2,700 years ago, know that the universe is a product of God’s infinite energy? He certainly did not figure that out himself! Rather, he wrote what Jehovah inspired him to write. (2 Timothy 3:16) Thus, he, as well as the other Bible writers, did something no science textbook or telescope can do. They identified the One who gave the stars their beauty and glory.

J. Hester and P. Scowen (AZ State Univ.), NASA ►

## IMAGE COLOR: TRUE OR FALSE?

Thanks to the Hubble Space Telescope (HST), likely you have seen spectacular, colorful images of galaxies, nebulae, and stars. But are the colors real? The fact is, they are a re-creation, a blend of art and science. The images received from the HST are monochrome but are taken through color filters.

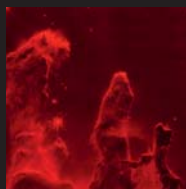


**Monochrome**

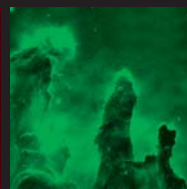
Astronomers and imaging specialists use modern technology and software to compose the final images, at times to reproduce as closely as possible what they believe to be the natural colors of heavenly objects.\* At other times, astronomers deliberately produce false-color images to make certain things stand out, perhaps for scientific analysis.

\* When we use a telescope to observe faint objects in the night sky, our cone cells pass the task of seeing to our rod cells, which cannot perceive color.

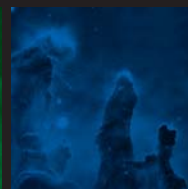
**Red**



**Green**



**Blue**



**Final image after  
combining the  
three colors**





# How can I enjoy studying the Bible?

**Why study the Bible at all?  
Think of it this way:**



**The Bible can help you find a *treasure*.  
This best-selling book can**

- Show you how to prepare for the best life ever
- Tell you things about the future—and the past—that you couldn't know otherwise
- Help you to learn about yourself and become a better person\*



**S**TUDYING the Bible takes effort, but the payoff is huge! Want to know how some young people are doing it? Cut and fold the following page. You'll have a handy four-page reference that will show you how your peers are overcoming obstacles and getting the most out of their personal study of the Bible.

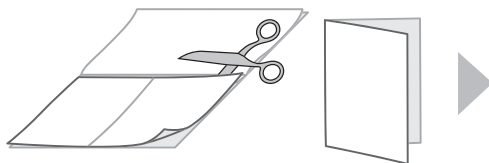
*"There is something in the Bible for everyone. The possibilities for study are endless!"—Valerie.<sup>#</sup>*

\* To discover more about how the Bible can do all those things for you, contact Jehovah's Witnesses locally or write to the appropriate address on page 5.

<sup>#</sup> Some names in this article have been changed.

**Cut**

**Fold**



More articles from the  
"Young People Ask" series  
can be found at the Web site  
[www.watchtower.org/ype](http://www.watchtower.org/ype)



CUT ALONG DOTTED LINE

FOLD

## TIPS FROM YOUR PEERS



**Zachary** — Don't just study what your parents or others are studying. It's really personal study when it's something **you** want to learn about.



**Kaley** — Start small. If you have to, just do five minutes, but do it every day. Then you can gradually increase your time to 10 minutes, 15 minutes . . . Eventually you will enjoy it!



**Daniela** — Small details can also make a big difference. Get a set of pens and a nice notebook, or create a file on your computer named Personal Study.



**Jordan** — If I pick a topic I enjoy, I'm able to study longer. Also, I need a quiet setting. I can't study if there's a lot of noise in the background.

## HOW TO STUDY THE BIBLE

### The problem: **NO MOTIVATION**

*"Sitting down to study for an hour doesn't always seem like something I want to do."  
—Lena.*

### What you need: **INCENTIVE**

To enjoy studying the Bible, you need to answer the question, What's in it for me? Would you like to have friendship with God? deepen your understanding of world events? improve your personality? The Bible can help you do those things—and more!

*"Don't think of it as work or think it's like studying for school. Instead, view Bible study as a way to become closer to the greatest Friend you'll ever have—Jehovah God."—Bethany.*

*"A study session is your personal time with Jehovah God. If you spend time with someone only when your parents are there, is that person really your friend or just your parents' friend? If you study by yourself, Jehovah can become **your** friend."—Bianca.*

**Remember:** "Everything in the Scriptures is God's Word. All of it is useful for teaching and helping people and for correcting them and showing them how to live." (2 Timothy 3:16, Contemporary English Version) The Bible can help you in those ways too!

*"I try to focus on the rewards. If I'm lacking in some aspect, study is my opportunity to address the issue and improve myself."—Max.*

**To think about:**  
What can be your study incentive?



## **The problem:** **BOREDOM**

*"After 10 minutes of studying, I start getting tired; in 20 minutes I'm ready to do something else; by 30 minutes, I'm bored to death!"*  
—Allison.

## **What you need:** **CREATIVITY**

Use your imagination, whether it involves what you study, how you study, or the environment you choose.

*"Take time to research questions that you have. When you study about something that's been on your mind, you finish with a sense of satisfaction—even joy."*—Richard.

*"As you read about an event, put yourself in the picture. Pretend that you're either the main character or a bystander watching the action unfold. Try to see the event with your mind's eye."*—Steven.

*"Make study enjoyable. Sit in the backyard and have a glass of lemonade. I like snacks while I'm studying. Who doesn't?"*—Alexandra.

**Remember:** Boredom is a perception, not always a reality. So instead of saying "study is boring," say "I am bored." Take responsibility for your outlook. That will put you in control and will empower you to do something about it.—Proverbs 2:10, 11.

*"Personal study doesn't have to be boring. It can be whatever you want it to be."*—Vanessa.



**To think about:**  
How can you be creative with your study?

## **The problem:** **NO TIME**

*"I'd love to study the Bible more, but with such a busy schedule, my biggest challenge is to find the time to sit down and do it!"*  
—Maria.

## **What you need:** **PRIORITIES**

Part of becoming an adult is learning how to "make sure of the more important things."  
—Philippians 1:10.

*"My mom helped me to realize that I was never going to have extra time. I had to make the time. Once I worked on my desire to study, I made time for it."*—Natanya.

*"As I've gotten older, I've learned that I have to schedule a time to study, and that's when I do it, regardless of what else is going on."*—Yolanda.

*"If you put study before recreation, I guarantee you'll enjoy study even more—and your recreation will come guilt free."*—Diana.

**Remember:** If you don't set priorities, you'll lose control of your time and become its slave. It's far better if you take the initiative and make room for study.—Ephesians 5:15, 16.

*"As a high school student, I can easily get pre-occupied with other things! However, making a conscious effort to include personal Bible study in my schedule is a priority for me."*—Jordan.

**To think about:**  
What study schedule can you set?





## The Engineering Instinct of the Paper Wasp

● Paper wasps have been described as masters of engineering. Why is this description fitting?

**Consider:** As its name suggests, the paper wasp builds and maintains its compound nest out of a special kind of paper, which it manufactures itself.\* The insect collects fibers of plants and of dead wood from all kinds of places—logs, fence posts, telephone poles, and building materials. It then chews the cellulose-rich material, adding a sticky, high-protein saliva. When applied, the resulting paste dries to form a light, firm, yet tough, paper. Moreover, the saliva has special properties that enable the paper to generate and absorb heat, thus maintaining the right temperature in the brood comb on cool days.

The wasp builds its nest “mouthful by mouthful.” The finished product is a waterproof, paper-umbrella-covered cluster of hexagonal cells—the hexagon combining strength and efficiency. Wasps that live in wetter areas simply add more oral secretion because of its water-resistant properties. That said, the insects select sites that offer some kind of protective overhang. From this they suspend their downward-facing nests by a stalk, or petiole. Moreover, paper wasps do no harm to the environment—unlike our papermaking processes, which pollute air, water, and land!

Understandably, architects and researchers are studying the wasp’s products with a view to designing superior building materials that are lightweight, strong, more flexible, and biodegradable.

**What do you think?** Did an insect with a brain roughly the size of two grains of sand figure out papermaking and nest architecture by itself? Or are its chemical- and mechanical-engineering skills evidence of design?

\* A number of wasp species build paper nests. The cells therein serve as chambers for eggs, which develop into larvae.





## Should You Chew Betel Nut?

**O**N A street in Southern Asia, a friendly person smiles, revealing blackened teeth and a mouth filled with blood-red saliva. The person then spits on the pavement, leaving an unsightly red stain. He or she is chewing betel nut.

From East Africa, Pakistan, and India and through Southeast Asia to Papua New Guinea and Micronesia, betel-nut users number hundreds of millions—about 10 percent of the world’s population. Betel-nut vendors, sometimes with their children, set up their tables in public markets and on the streets. Other vendors employ neon lights and scantily clad girls—“betel-nut beauties”—to attract customers.

Worldwide, betel-nut sales bring in billions of dollars. What, though, is betel nut? Why do so many people chew it? How does the habit affect their health? What is the Bible’s view of the practice? And how can users kick the habit?

### What Is Betel Nut?

What is commonly called betel nut is actually the fleshy fruit of the areca palm (betel palm), a tropical plant found in the Pacific and Southeast Asia. The name betel comes from the unrelated betel-pepper plant. Betel-nut chewers wrap a piece of areca fruit in a betel-pepper leaf, along with a little mineral lime. The lime promotes the release of alka-

loid stimulants. Some chewers add spices, tobacco, or sweeteners to enhance the flavor.

This preparation stimulates the production of saliva and colors it blood-red. Hence, chewers spit frequently, even out of moving vehicles, to the peril of passersby!

### Chewing Their Way to Misery!

“Areca nut has been used since antiquity and has assumed major social, cultural and even religious roles,” says a report in *Oral Health*. “Users often consider it harmless and report a sense of well-being, euphoria, [and] a warm sensation of the body . . . Evidence has shown, however, that it is far from harmless.” How so?

Drug-prevention authorities believe that one of the alkaloids in betel nut can be habit forming. Indeed, some users chew up to 50 betel nuts a day! Before long, teeth become stained, and gum disease may follow. Habitual users, according to *Oral Health*, may develop “chewers mucosa”—a brownish-red staining and often wrinkling of the mucous membrane lining the mouth. They may also develop a “chronic, progressive, scarring . . . of the oral mucosa,” a condition called oral submucous fibrosis.

Betel-nut chewing is also linked to a form of mouth cancer called oral squamous cell carcinoma, which can also occur at the back of the throat. The high incidence of oral cancer among adults in Southeast Asia seems



**Betel nuts wrapped in a betel-pepper leaf**



to bear this out. In the Taiwan area, approximately 85 percent of oral cancer cases occur in betel-nut chewers. Moreover, “Taiwan’s rate of oral cancer—one of the island’s top 10 causes of death—has nearly quadrupled in the past 40 years,” says *The China Post*.

The situation is much the same elsewhere. The *Papua New Guinea Post-Courier* states: “Papua New Guinea’s favourite chew, the betelnut, is killing at least 2,000 people a year and is responsible for many health problems, according to the PNG Medical Society.” “The effects of chronic betel usage,” according to one doctor and medical writer, “are at least as diverse as those of smoking” and include cardiovascular disease.

### What Is the Bible’s View?

The Bible is not a medical textbook, and it does not specifically mention betel-nut chewing. It does, however, contain a broad range of principles that can help us to lead cleaner, healthier, and better lives. Think about the following Bible verses and the questions they prompt.

**“Beloved ones, let us cleanse ourselves of every defilement of flesh and spirit, perfecting holiness in God’s fear.”** (2 Corinthians 7:1) **“Present your bodies . . . holy, acceptable to God.”** (Romans 12:1) Would a person be holy, or clean, in God’s eyes if he were to pollute his body by chewing betel nut?

**“By [God] we have life.”** (Acts 17:28) **“Every good gift and every perfect present is from above.”** (James 1:17) Life is a precious gift from God. Is a person who indulges in habits that can cause disease showing respect for that gift?

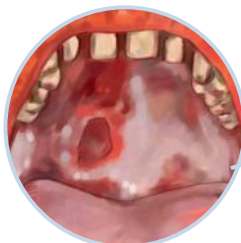
**“No one can slave for two masters.”** (Matthew 6:24) **“I will not let myself be brought under authority by anything.”** (1 Corinthians 6:12) Should a person who wants to please God allow himself to become a slave to an unclean habit, letting it rule his life?

**“You must love your neighbor as yourself.”** (Mark 12:31) **“Love cannot wrong a neigh-**

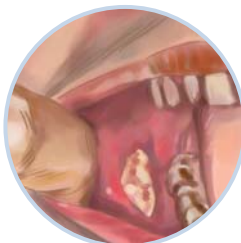
### Chronic betel-nut chewing may lead to serious medical conditions



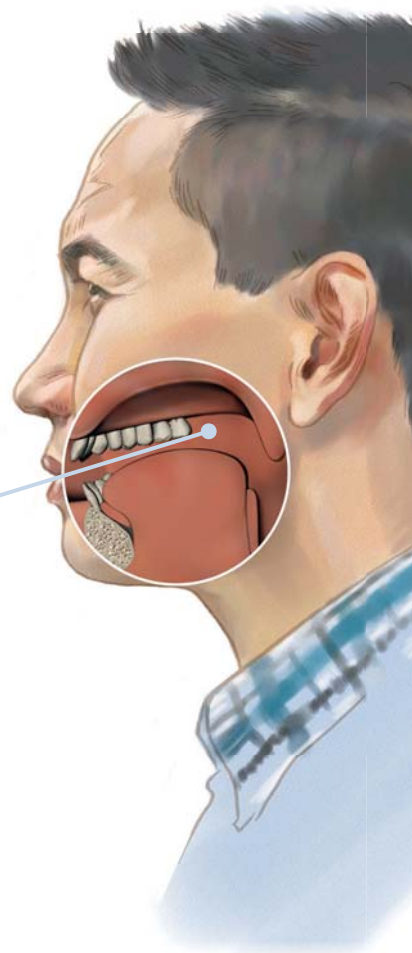
Stained teeth and gum disease



Oral submucous fibrosis



Oral squamous cell carcinoma



**bour.”** (Romans 13:10, *The New English Bible*) Would we be showing genuine love for others if we spit unsightly—and unhygienic—red saliva on paths, sidewalks, or other areas?

Inevitably, ‘what we sow we reap.’ (Galatians 6:7, 8) This is a fundamental law of nature. Hence, if we sow bad habits, we will reap what is bad. However, when we live as God intended for us to live, which includes having good habits, we will not only reap what



is good but also find true and lasting happiness. If you habitually chew betel nut but want to lead a better, more rewarding life by doing what is right in God's eyes, how can you conquer your habit? Why not prayerfully consider the following three tried-and-tested steps?

### Three Steps to Kicking the Habit

**1. Be motivated.** To overcome a bad habit, you need stronger motivation than merely knowing about the risk to your health. After all, many people persist in chewing betel nut, smoking tobacco, or abusing drugs, knowing full well that their habit can endanger their health and life. To strengthen your motivation, why not learn about your Creator and his deep love for you by examining the Bible? "The word of God is alive and exerts power," says Hebrews 4:12.

**2. Ask God for help.** "Keep on asking, and it will be given you," said Jesus Christ. "Keep on seeking, and you will find; keep on knocking, and it will be opened to you. For everyone asking receives, and everyone seeking finds, and to everyone knocking it will be opened." (Luke 11:9, 10) When the true God, Jehovah, sees you prayerfully and sincerely looking to him for support and strength, he will not ignore you. "God is love," says 1 John 4:8. One who experienced that love was the Christian apostle Paul. He wrote: "For *all* things I have the strength by virtue of him who imparts power to me."—Philippians 4:13.

**3. Seek the support of others.** The people with whom you associate can have a powerful influence on you for good or for bad. "He that is walking with wise persons will become wise, but he that is having dealings with the stupid ones will fare badly," says Proverbs 13:20. So choose your associates wisely! Among Jehovah's Witnesses there are many who once used betel nut. But by associating with fellow believers and studying the Bible, they received the extra help they needed to conquer their unclean habit.



Betty



Pauline



Wen-Chung



Jiao-Lian



Sam

## THEY KICKED THE HABIT

*Awake!* interviewed five people who once chewed betel nut but have since given up the habit. Consider what they have to say.

### Why did you take up chewing betel nut?

**Pauline:** My parents introduced me to betel nut when I was a small child. That was the custom in my island village in Papua New Guinea.

**Betty:** My father gave me betel nut when I was two years old. In my teens, I used to carry so many betel nuts with me that I was like a betel nut tree! I was so addicted that the first thing I did every morning was chew betel nut.

**Wen-Chung:** I started chewing betel nut when I was 16 years old. It was considered cool and grown-up, and I wanted to be accepted.

**Jiao-Lian:** I sold betel nut to support myself financially. In order to succeed, I felt I had to make sure my product was top quality, so I began to sample it. That led to my habit.

### How did the habit affect your health?

**Jiao-Lian:** My mouth, teeth, and lips were stained blood-red. I'm embarrassed to look at photographs of me taken back then. I still suffer from lip ulcers.

**Pauline:** I used to get mouth ulcers, nausea, and diarrhea.

**Betty:** I weighed just 77 pounds (35 kg), which was grossly underweight for an adult my height. My teeth looked ugly, and I often cleaned and polished them with steel wool.

**Sam:** I used to get diarrhea and gum disease. Now I have only one tooth! And it probably did not help that I used steel wool to polish my teeth.

### Why did you give up the habit?

**Pauline:** I read in the Bible at 2 Corinthians 7:1 that God wants us to "cleanse ourselves of every defilement of flesh." I decided to try hard to please my Creator.

**Sam:** I wanted Jehovah God's holy spirit to operate in my life, so I prayed that Jehovah help me to resist the temptation to chew betel nut. He answered my prayers. I have not used betel nut for about 30 years.

**Jiao-Lian:** While reading the Bible, I came across the words "Cleanse your hands, you sinners." (James 4:8) That directive leaped out at me. Could I rightly be using and selling betel nut, knowing the harm that it can do? Then and there I decided to 'cleanse my hands' of this physically and spiritually unclean habit.

### How have you benefited from giving up the habit?

**Wen-Chung:** I started chewing betel nut in order to be accepted by my peers. I now enjoy far more precious relationships, both with Jehovah and with my spiritual brothers and sisters.

**Sam:** I am now much healthier—physically and spiritually. And because I do not squander money on bad habits, I am better able to take care of my family.

**Pauline:** I feel free and clean. My teeth are white and strong. And my house and garden are free of betel-nut skins and ugly red stains.

**Betty:** I have a clean conscience and much better health. In fact, I am able to work both as a schoolteacher and as a full-time Christian minister.





## HOW **ARABIC** BECAME THE LANGUAGE OF THE LEARNED

**F**OR centuries, Arabic was the predominant language of the learned. Beginning in the eighth century C.E., Arabic-speaking scholars in various Middle Eastern cities translated and corrected scientific and philosophical texts stretching back to the times of Ptolemy and Aristotle. Arabic-speaking scholars thus preserved and enriched the work of ancient thinkers.

### **A Melting Pot of Ideas**

The seventh and eighth centuries of our Common Era saw new powers arise in the Middle East in the form of two dynasties—first the Umayyad and then the Abbasid. Since their subjects in Arabia, Asia Minor, Egypt, Palestine, Persia, and Iraq had been influenced by both Greece and India, the new rulers had access to a rich reservoir of learning. The Abbasids built a new capital, Baghdad, and it became a melting pot of ideas. There, Arabs mingled with Armenians, Berbers, Chinese, Copts, Greeks, Indians, Jews, Persians, Turks, and Sogdians, from beyond the Oxus River, now known as the Amu Dar'ya, in Central Asia. Together, they studied

and debated the sciences, cross-pollinating their diverse intellectual traditions.

Baghdad's Abbasid rulers encouraged gifted thinkers, wherever they came from, to contribute to the intellectual development of the empire. Systematic efforts were made to gather and translate into Arabic tens of thousands of books on a wide range of subjects, including alchemy, arithmetic, geometry, medicine, music, philosophy, and physics.

Caliph al-Manşūr, who ruled from 754 to 775 C.E., dispatched ambassadors to the Byzantine court to acquire Greek mathematical texts. Caliph al-Ma'mūn (813-833 C.E.) followed his lead, giving impetus to a Greco-Arabic translation movement that lasted for more than two centuries. Hence, by the end of the tenth century, nearly all Greek philosophical and scientific texts then available had been translated into Arabic. But Arabic scholars did more than translate. They also made original contributions.

### **Arabic Contributions**

Many Arabic translators worked accurately and with astonishing speed. Hence, some



## Hunayn ibn Ishāq's eye diagram



A page from Avicenna's  
"Canon of Medicine"

historians have argued that the translators must have been familiar with the subject matter. What is more, a number of scholars used translated texts as a springboard for their own research.

For example, the physician and translator Ḥunayn ibn Ishāq (808-873 C.E.), a Syriac Christian, significantly contributed to the understanding of vision. His work, which incorporated accurate anatomical diagrams of the eye, became a standard reference in ophthalmology in both the Arab world and Europe. The philosopher and physician Ibn Sīnā, known in the West as Avicenna (980-1037 C.E.), wrote many dozens of books on a wide range of topics from ethics and logic to medicine and metaphysics. His great compendium, the *Canon of Medicine*, drew on the medical knowledge available at that time, including the ideas of the celebrated Greek thinkers Galen and Aristotle. The *Canon* remained the standard medical textbook for some 400 years.

Arab researchers embraced the experimental method of science, which lies at the very heart of scientific progress. This led them to recalculate the earth's circumference and to correct geographical information in the work of Ptolemy. "They dared question even Aristotle," says historian Paul Lunde.

The advance in learning was reflected in many practical fields, such as the construction of reservoirs, aqueducts, and waterwheels, some of which survive to this day. New texts on agriculture, botany, and agronomy enabled farmers to select the best crops for a particular area, thus boosting productivity.

In 805 C.E., Caliph Hārūn ar-Rashīd established a hospital, the first in his vast empire. Before long, every major city within his domain had one.

### New Centers of Learning

A number of cities in the Arab world boasted libraries and specialized centers of learning. In Baghdad, Caliph al-Ma'mūn founded the translation and research institute called Bait al-Hikma, meaning the "House of Wisdom." Its staff included salaried scholars. The main library in Cairo is said to have housed more than a million volumes. Meanwhile, Córdoba, capital of Umayyad Spain, had 70 libraries, which drew scholars and students from all over the Arab world. For well over two centuries, Córdoba remained a leading intellectual center.

In Persia, Greek mathematical traditions intermingled with those of India, where mathematicians had developed a system for the use of the numeral zero and positional nota-

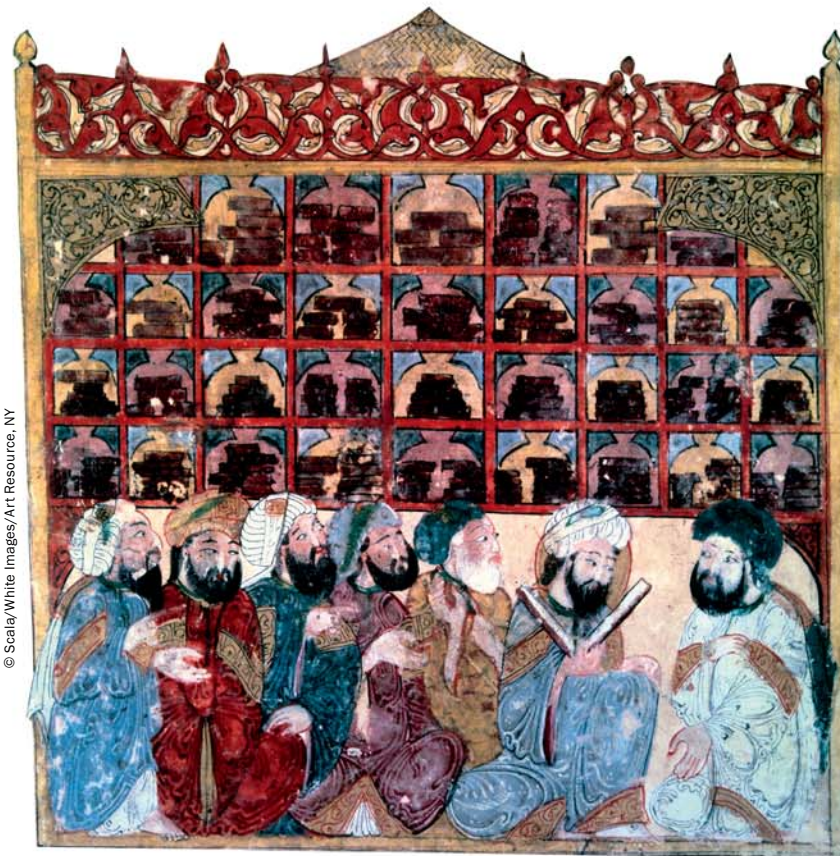
tion. In that system of writing numbers, individual digits assume different values according to their position and the placement of the symbol for zero. The digit one, for example, can mean one, ten, a hundred, and so on. This system "not only simplified calculation of all sorts but made possible the development of algebra," writes Lunde. Arab scholars also made great strides in geometry, trigonometry, and navigation.

The golden age of Arab science and mathematics contrasted with the intellectual torpor elsewhere. Parallel efforts were being made in medieval Europe, mainly in monasteries, to preserve the works of ancient scholars. The output, though, paled when compared with that of the Arab world. As early as the tenth century, however, things began

to change when translations of Arab scholarship trickled into the West. In time, this trickle grew in scale and led to the European scientific renaissance.

Yes, history's big picture tells us that no single nation or people can take the credit for the present state of learning in the sciences and related fields. Today's more learned cultures owe a lot to earlier cultures that promoted research, questioned the orthodox, and encouraged fertile minds.

**Arabic scholars in a library in Basra, 1237 C.E.**





### Young Leaders in Malaysia

A popular TV competition in Malaysia has the theme of picking a good imam, or Islamic religious leader. Entitled “Imam Muda,” or “Young Leader,” the show is filmed in Kuala Lumpur. Contestants, aged 18 to 27, who come from various backgrounds, are gradually eliminated until just one remains. Prizes consist of money and a new car, but the winner is also offered employment as an imam, a scholarship to study in Saudi Arabia, and a paid pilgrimage to Mecca. Contestants must master the duties of an imam, be able to debate religious and current issues, and recite from the Koran. The show’s creator says that his aim is to “attract the youth” to Islam.

### Online Indiscretions

Many users of social networks do not foresee the possible consequences of disclosing private information. Yet, indiscretions online can catch up with you later in life. According to school headmaster Timothy Wright, quoted in Australia’s *Sydney Morning Herald*, “modern technology means that the careless word, the slanderous comment, the inappropriate photograph or the revealing of someone’s private details is on the permanent record and freely available to anyone who has access.” This means that “mistakes made at 15 may be still retrievable by an employer 10 years later,” says Wright.



**“The presidency has a funny way of making a person feel the need to pray.”**—BARACK OBAMA, PRESIDENT OF THE UNITED STATES OF AMERICA.

When asked to select a means of **expressing national pride**, 56 percent of people in Argentina between ages 10 and 24 said they would prefer to wear the jersey of the national soccer team.—*LA NACIÓN*, ARGENTINA.

Results from a study suggest that “roughly **one-third of food produced for human consumption is lost or wasted globally**, which amounts to about 1.3 billion tons per year.”—FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS, ITALY.

“Today, wars and reports of wars fill the earth, and so **the army of our Fatherland should always be ready** to protect its people and all that it holds holy from any claims made by an external enemy.”—PATRIARCH KIRILL, HEAD OF THE RUSSIAN ORTHODOX CHURCH.

**The peak in the number of traffic accidents** reported to a German insurance company in 2010 occurred between 7:00 a.m. and 8:00 a.m. “One of the most important accident prevention measures is to take enough time to get to work in the morning,” comments a company official.—*PRESSEPORTAL*, GERMANY.



## What Is Missing From This Picture?

**Read 1 Samuel 1:24-28; 2:11.** Now look at the picture. What features are missing? Write your answers on the lines below. Connect the dots to complete the picture, then color in the drawing.

1. ....

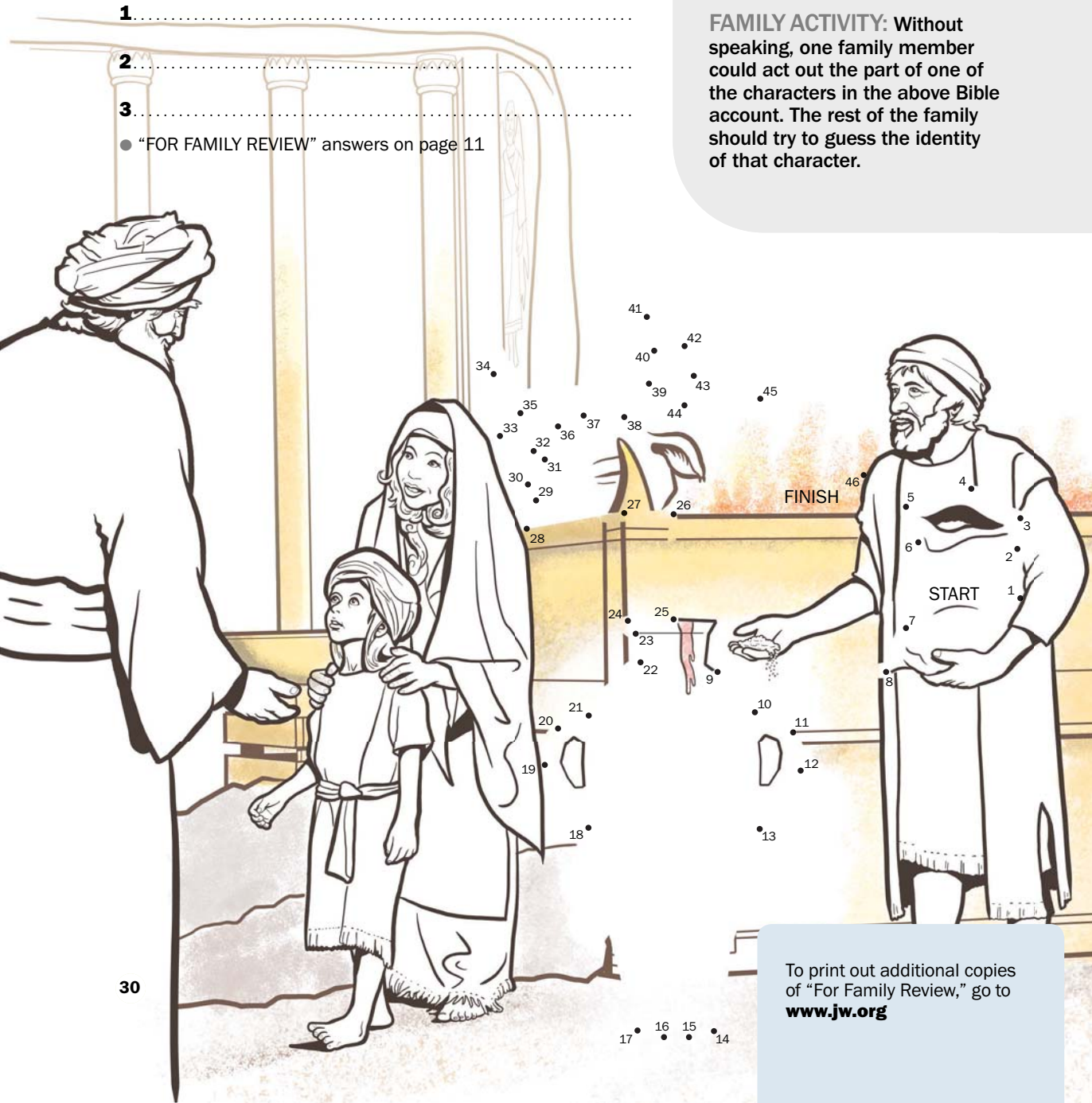
2. ....

3. ....

● “FOR FAMILY REVIEW” answers on page 11

**FOR DISCUSSION:** How did Samuel’s parents want him to use his life? How did Jehovah bless Samuel? **CLUE:** Read 1 Samuel 3: 19-21. What goals can you set so as to honor Jehovah? **CLUE:** Read Ecclesiastes 12:13; 1 Timothy 4: 6-8, 12, 13.

**FAMILY ACTIVITY:** Without speaking, one family member could act out the part of one of the characters in the above Bible account. The rest of the family should try to guess the identity of that character.



To print out additional copies of “For Family Review,” go to [www.jw.org](http://www.jw.org)

## Collect and Learn

Cut out, fold in half, and save



BIBLE CARD

14



### QUESTIONS

- A. Samuel's parents were named \_\_\_\_ and \_\_\_\_.
- B. Jehovah used Samuel to write what Bible books?
- C. Complete the Bible's statement: "And the boy Samuel continued . . ."

98 C.E.

Last Bible book written

1 C.E.

Lived about 1100 B.C.E.

4026 B.C.E.

Adam created



Born in Ramah  
—moved to Shiloh



## SAMUEL

**PROFILE** His parents "lent him to Jehovah" and encouraged him to make God's service his career from a young age. (1 Samuel 1:24, 28) Though he saw corrupt priests take advantage of others, Samuel remained loyal, honest, and brave.—1 Samuel 2:22-26; 3:18, 19; 12:2-5, 17, 18.

### ANSWERS

- A. Elkanah and Hannah.  
—1 Samuel 1:19, 20.
- B. Judges, Ruth, and part of First Samuel.
- C. ". . . growing up with Jehovah."  
—1 Samuel 2:21.

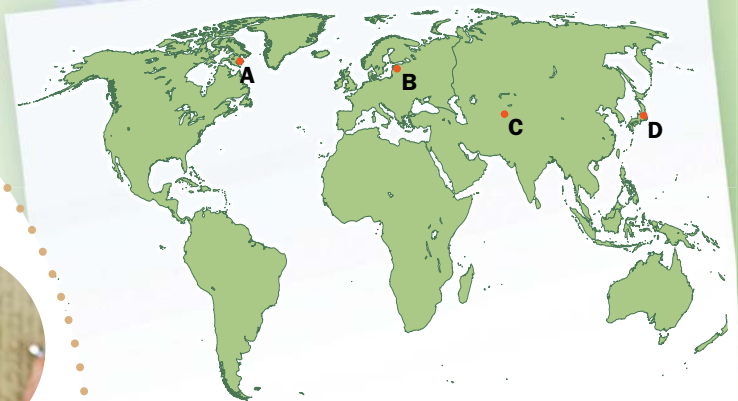
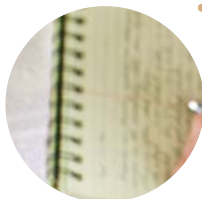
## Peoples and Lands

4. Our names are Oskar, aged 10, and Saskia, aged 7. We live in Estonia. About how many of Jehovah's Witnesses live in Estonia? Is it 2,400, 4,200, or 6,800?
5. Which dot shows where we live? Circle it, draw a dot where you live, and see how close you are to Estonia.

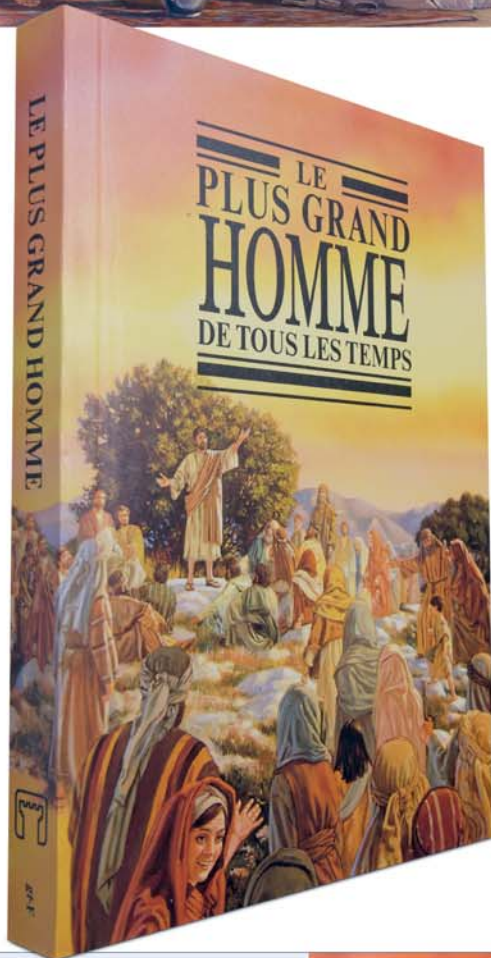


## Children's Picture Search

Can you find these pictures in this issue? In your own words, describe what is happening in each picture.







## “This Book Is a Masterpiece”

- Would you like to read about the earthly life of Jesus Christ, as well as his life-altering teachings and unforgettable illustrations? If so, you are invited to read the book *The Greatest Man Who Ever Lived*.

After studying this book, an appreciative reader stated: “Written in such a simple manner, yet conveying in beautiful detail the life of our Lord while on earth, this book is a masterpiece.”

To the extent known, events in this book are related in the order in which they occurred. It is based on the divinely inspired writings of four of Jesus’ contemporaries, the Gospel writers Matthew, Mark, Luke, and John. Matthew and John were apostles and traveling companions of Jesus. Mark was a close friend of Peter, one of Jesus’ apostles. And the physician Luke was a traveling companion of the Christian apostle Paul.

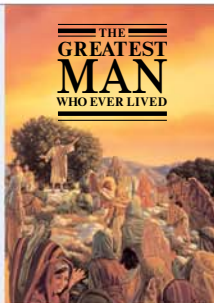
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.....

☐ Please contact me concerning a free home Bible study.



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