Matthew 7:13–14
"Enter ye in at the strait gate: for wide is the gate, and broad is the way, that leadeth to destruction, and many there be which go in thereat."...

How well do you understand the concept of "strait"?

1. As the strait way leads to the narrow gate of life, so the broad road leads to the wide gate of destruction. (Read John 10:7–11.)
   - A gate denotes jurisdiction, and Jesus referred to Himself as "the door." Thus, the strait road is for those who enter the gate rather than for those who are looking for the gate.
   - Our sin nature predisposes us to choose the wide gate and the broad way that leads to destruction. (See Romans 5:12.)

2. The terms narrow-minded and broad-minded are actually further descriptions of the strait and broad roads. (Read I John 2:15–17.)
   - The term narrow-minded has been used in derision against those who would no longer walk in the lust of the flesh, which leads to destruction. The term broad-minded is often used by those who want to indulge in the lust of the flesh, the lust of the eyes, and the pride of life. If we follow our common sense, we will avoid the broad way which leads to destruction.

3. Every person is confronted by the choice between the strait way and the broad way. (Read Proverbs 8:17.)
   - By the phrase "few there be that find it," Jesus indicated that the strait way is to be searched out and sought after with our whole heart. It will not be discovered by the careless and those committed to their own ways.
   - To seek the Lord with our whole heart requires that we be separate from the ways of the majority. (See Psalm 4:3.)

4. The narrow gate refers to the righteousness of Christ in salvation, and the strait way refers to holiness in the Christian life. (Read Isaiah 35:8–9.)
   - The highway of Isaiah 35:8 is a main thoroughfare. It is broad and well-traveled. Distinct from it is "... a way, and it shall be called The way of holiness. ..." In II Corinthians 7:1, we are instructed to "... cleanse ourselves from all filthiness of the flesh and spirit, perfecting holiness in the fear of God.
   - Those who travel the strait way have an equal amount of light for each step they take. (See Proverbs 4:18.)

Total Correct: 5

Nothing But the Blood

What can wash a way my sin? Nothing but the blood of Jesus.

For my pardon this I see—Nothing but the blood of Jesus.

Nothing can for sin a- tone—Nothing but the blood of Jesus.

Oh! precious is the flow That makes me white as snow;

Nothing but the blood of Jesus.
“Enter ye in at the strait gate: for wide is the gate, and broad is the way, that leadeth to destruction, and many there be which go in thereat: Because strait is the gate, and narrow is the way, which leadeth unto life, and few there be that find it.”

In our day, the Christian life is often regarded as only a decision to receive Christ as Savior; however, Jesus taught and the early disciples understood that Christianity is a way of life.

Jesus said, “...I am the way...” (John 14:6). It is for this reason that the early Christians were called “followers of the way.”

In this passage, Jesus makes it clear that the way to life is not obvious—it must be searched out. It is not popular—it will be traveled by only a few. It is not trouble-free—it is hemmed in by pressures and barriers.

The need to enter at the proper gate is emphasized by the consequences and rewards that accompany each choice.

To enter the narrow gate, one must repent (turn around and go the opposite way). This means that he will face the disapproval and rejection of those people with whom he had been traveling on the broad way.

Do Resource A.

How does Daniel Boone’s discovery of the Cumberland Gap illustrate the strait way to life?

A land of promise lay beyond the Allegheny Mountains. However, the forbidding mountains and hostile Indians kept many from attempting to cross.

In 1769 Daniel Boone and his companions discovered the narrow passage in the mountains now known as the Cumberland Gap. He blazed a trail through the pass in 1775 and, thus, prepared the way for 200,000 pioneers to reach their destination.

How did one man point millions to the narrow gate that leads to life?

One day a Sunday school teacher nervously walked into a shoe store and led a salesman to Christ. That salesman grew in the Lord and later became a mighty preacher of the Gospel.

D. L. Moody 1837-1899

Do Resource C.
How does the Strait of Gibraltar illustrate the strait way that leads to life?

The channel between the Mediterranean Sea and the Atlantic Ocean appeared to be an easy passage to inexperienced captains of ancient Phoenician ships. However, these captains were unaware of the enormous crosscurrents, the powerful winds, and the treacherous rocks in this "gateway to the Mediterranean." Only the ships which found the narrow path within the channel avoided violent destruction.

Do Resource D.

How does hydraulics illustrate the power of the strait way?

Hydraulics operates on the basis of restricting liquids. As long as the liquids are confined, incredible energy is transferred and great accomplishments can be achieved. If at any time the restrictions to the fluids are removed, the power is diminished and the potential of achievement is lost.

Do Resource E.

How does the people's choice of God determine God's choice of a government for them?

The ruins of a Cush temple, built about A.D. 1, are a silent reminder of a once great and influential civilization in Africa. Note the Roman and Egyptian architecture.

Scripture affirms that a nation which has God as Lord is blessed (see Psalm 33:12). A God-fearing nation is made up of individuals with personal disciplines, families who give loving reproofs, and churches which teach spiritual wisdom.

Such a nation will enjoy peace even when laws are poorly written. However, without these elements, even the best laws will be ineffective, and soon the country will face the unhappy options of destructive governments.

Is a vote for democracy a vote for the strait way or the broad way?

Because a pure democracy makes the will of the majority the sovereign rule of the land, it violates the requirements for a Godly nation. A pure democracy fulfills the description of the broad way which leads many to destruction.

Benito Mussolini promised freedom and prosperity but actually brought death and bondage to Italy.

How did the broad way in medicine kill a U.S. President?

On the morning of December 14, 1799, the President of the United States awakened with a sore throat.

He mentioned the symptom to his wife, and the doctors were summoned. When they arrived, they treated him in accordance with the medical practices of the day.

The death of George Washington

The doctors, in order to drain some of his blood, attached two large leeches to his body. The treatment brought no response, so more blood was drained later in the day.

By evening, the doctors noted that the blood came very slowly. Later that evening the President died, a victim of a medical theory which contradicted the strait way of Leviticus 17:11.

How does the circulatory system illustrate the strait way?

There are clear analogies between the marvelous circulatory system which God created in us and the responsibility of each Christian to function within the strait way that leads to life.
How many of these questions can you answer before studying the resources?

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HOW DO THE GREEK WORDS FOR "STRAIGHT" AND "STRAIT" EXPLAIN THE WAY TO LIFE?

Would the river which winds through this gorge be an accurate picture of the strait way of which Jesus spoke in Matthew 7:13-14?

If your answer to the above question is “yes,” you are correct. If you can explain why your answer is accurate, then you probably understand some very important factors that relate to the way of life which Jesus taught us to seek.

How does the strait way differ from the straight way?

The English word strait and the Greek word στενός (steh-NOSS) both mean “to crowd; to put to difficulty; to suffer tribulation.” Strait, then, is synonymous with distress and difficulty.

Our word stenography comes from στενός and means “compact writing.” A straitjacket is a long-sleeved garment used to bind a person’s arms tightly against his body as a means of restraint.

The strait way that leads to life is a way that is filled with constraints, difficulties, and struggles.

On the other hand, the English word straight, the Greek word εὐθὺς (yoo-THUCE), and the Hebrew word יֶשֶׁב (yaw-SHAR) all mean “extending continuously in the same direction without curving up or down to the right or to the left; a level place.”

How is the word straight used in Scripture to explain the way to life?

John the Baptist was sent to prepare the nation of Israel for the coming of the Lord. He warned the people to turn from their evil ways and to seek the Lord.

When asked about his mission, he said he was “…the voice of one crying in the wilderness, Prepare ye the way of the Lord, make his paths straight. . . . Every mountain and hill shall be brought low; and the crooked shall be made straight, and the rough ways shall be made smooth; And all flesh shall see the salvation of God” (Luke 3:4–6).

John was telling the people, “Do not make any deviation or crooked way in coming to the Savior for salvation. Make a direct path to Him; do not turn out of the way. Remove every hindrance that would cause you to stumble in the process of coming to Christ.”

The highway in this picture is a straight way, as defined by the Greek word εὐθὺς.

God uses the concept of a straight way in providing salvation for His people. Note the following passages:

• “And I will bring the blind by a way that they knew not; I will lead them in paths that they have not known: I will make darkness light before them, and crooked things straight. These things will I do unto them, and not forsake them” (Isaiah 42:16).
- “I will go before thee, and make the crooked places straight: I will break in pieces the gates of brass, and cut in sunder the bars of iron” (Isaiah 45:2).
- “They shall come with weeping, and with supplications will I lead them: I will cause them to walk by the rivers of waters in a straight way, wherein they shall not stumble…” (Jeremiah 31:9).

How is the word strait used in Scripture to describe life after salvation?

David was a man after God’s own heart, and he desired to follow the Lord. Throughout his life he often found himself surrounded by situations and pressures that were bigger than he was. These “strait ways” are described in the following verse:

- “...I am in a great strait: let me fall now into the hand of the Lord; for very great are his mercies: but let me not fall into the hand of man” (I Chronicles 21:13).

The Apostle Paul also reported a situation in which he found himself in a strait place: “For I am in a strait betwixt two, having a desire to depart, and to be with Christ; which is far better” (Philippians 1:23).

In these passages we see heroes of the faith who were beset by hindrances and obstacles. The pressures in their lives forced them to cry out to the Lord, and in so doing, they strengthened their walk before Him. This concept of the “strait way” is taught in the Matthew 7:13–14 passage.

Paul further defines the “strait way” in the following passage:

- “Therefore being justified by faith, we have peace with God through our Lord Jesus Christ:
  - “By whom also we have access by faith into this grace wherein we stand, and rejoice in hope of the glory of God.
  - “And not only so, but we glory in tribulations also: knowing that tribulation worketh patience;
    - “And patience, experience; and experience, hope: And hope maketh not ashamed; because the love of God is shed abroad in our hearts by the Holy Ghost which is given unto us” (Romans 5:1–5).

James gives further confirmation that the Christian life is not a smooth, unhindered, easy-to-follow highway:

- “My brethren, count it all joy when ye fall into divers temptations; Knowing this, that the trying of your faith worketh patience.
  - “But let patience have her perfect work, that ye may be perfect and entire, wanting nothing” (James 1:2–4).

What is the relationship between the strait way and the narrow gate?

God wants nothing to hinder a person from discovering the gate to life. He strongly condemns anyone who would stand in the way of a child coming to that gate.

The gate is the Lord Jesus Christ, as He Himself said in John 10:7–9: “Then said Jesus unto them again, Verily, verily, I say unto you, I am the door of the sheep. . . . I am the door: by me if any man enter in, he shall be saved, and shall go in and out, and find pasture.”

Jesus strongly condemns anyone who would stand in the way of a person who comes to Him for salvation. He rebuked the Pharisees who refused to enter and who hindered others from entering.

- “Woe unto you, lawyers! for ye have taken away the key of knowledge: ye entered not in yourselves, and them that were entering in ye hindered” (Luke 11:52).

There is a practical reason for needing a straight way to the “Gate of Life.” The gate is narrow, yet it is the only way to life. Those who are not looking for it will not be likely to find it.
If Jesus were using the narrow gate in Jerusalem as an analogy of finding the way of life, it would have been the gate pictured above.

The narrow gate of Jerusalem was hardly more than a hole in the wall. Those who entered it were required to bow down to go through it. Only one at a time could enter. Any person encumbered with baggage had to slip through first and then bring the baggage in after him.

Outwardly the gate was unattractive, yet inside it lay all the benefits which the city afforded those who entered.

In contrast to the narrow gate, Jesus speaks of the wide gate which leads to destruction. Such a gate in the literal sense would have been the entrance to the empire of Babylon.

The main gate of Babylon was twenty-five feet wide, and the gate area was lavishly decorated so no one could miss it.

What is the significance of a gate in Scripture?

One of the most important aspects of a walled city was the gate and its surrounding area. It was here that many vital functions were carried out both for the people and for the city. The following functions are described in Scripture:

- Gates are symbols of strength, power, and dominion. Whoever controlled the gate controlled the city. (See Genesis 22:17.)
- It was at the gates that legal transactions were carried out. (See Ruth 4:11.)
- Court was held in the gates of the city. (See Deuteronomy 17:5; 22:15.)
- The king met with the people in the gates of the city. (See I Samuel 19:8.)
- The gate was the center for news about what was taking place in the city and in the surrounding areas. (See Esther 2:21–23.)

With all of the important activities occurring around a wide gate, it would have been perfectly clear to the listeners in Christ’s day of the difficulty of motivating people to search for and enter a narrow gate.

The problem would be compounded when the people learned that once they entered the narrow gate, they would be faced with a way that was fraught with obstacles and difficulties.

How do the constraints of the "strait way" lead us to life?

The broad road is filled with people. These people exert a significant amount of peer pressure upon those who walk with them. The broad road represents the easy life and is filled with the allurements that appeal to the physical senses of those who travel it.

In contrast to all the allurements of the broad way, the "strait way" is a lonely path, and it forces us to look to the Savior, Who has promised never to leave us or to forsake us.

The "strait path" has hurdles which require strength and effort to overcome. These hurdles force us to cry out to God for His strength and to claim the words of Paul. "I can do all things through Christ which strengtheneth me" (Philippians 4:13).
The “strait way” has curves and bends which require us to look to the Lord for daily direction and constant reassurance that we are in the center of His will.

The “strait way” depletes our strength and wears out our bodies, but in the process we are able to experience more and more of the life of Christ. God explains this paradox in II Corinthians 4:16-18:

“For which cause we faint not; but though our outward man perish, yet the inward man is renewed day by day.

“For our light affliction, which is but for a moment, worketh for us a far more exceeding and eternal weight of glory;

“While we look not at the things which are seen, but at the things which are not seen: for the things which are seen are temporal; but the things which are not seen are eternal.”

### Is it accurate to call the gate to life strait and the road narrow?

The translators of the King James Version identified the gate to life as strait and the road narrow in Matthew 7:13-14:

“Enter ye in at the strait gate . . . Because strait is the gate, and narrow is the way, which leadeth unto life, and few there be that find it.”

Study the following passage from the interlinear New Testament, and see what the Greek text actually states regarding the gate and the way.

*Εἰσέλθετε διὰ τῆς στενῆς πύλης· ὅτι πλατεῖα ἡ πύλη καὶ εὐρύχωρος ὁ δόδος ὡς τὴν ἁπάντησιν, καὶ τοῦτο ἐστίν ὁ εἰσερχόμενος διὰ τῆς στενῆς πύλης.*

As you can see, the word describing gate is narrow rather than strait, and the word defining way is strait rather than narrow. The New King James Version translates these verses as follows:

“Enter in at the narrow gate. . . . Because narrow is the gate and difficult is the way which leads to life, and there are few who find it.”

This is a more accurate translation of the Greek, upon which the points of this Resource are based.

### Why is the word strait inaccurate in describing the gate to life?

Jesus describes Himself as the door by which men enter into eternal life. The gate is narrow, but it is not difficult to enter. Christ has paid the price and given the desire and power to every person to receive Him and freely enter into eternal life through Him. (See Titus 2:11.)

Paul warned that some would try to make the way to salvation difficult: “... I fear, lest by any means, as the serpent beguiled Eve through his subtilty, so your minds should be corrupted from the simplicity that is in Christ” (II Corinthians 11:3).

### Why is it inaccurate to call the way to life “the straight and narrow”?

Just as some false teachers try to make salvation difficult, others try to present the Christian life as easy. Nothing could be further from the truth. Paul warned that everyone who desires to live a Godly life will suffer persecution (see II Timothy 3:12), and Jesus has called those who would follow Him to die to themselves and take up their cross daily and follow Him (see Luke 9:23).

### PROJECT

God compares the way to life to a hard and difficult path (as pictured above).

Based on this truth, list the pressures and obstacles that God has brought into your life in order to keep you on the “strait road” that leads to life. Thank God for each distress and difficulty which has kept you on the “strait path” and “crowded” you to Christ.

Date completed ____________ Evaluation ____________
HOW DOES BEING BROAD-MINDED PUT A PERSON ON THE ROAD THAT LEADS TO DESTRUCTION?

History and literature are replete with examples of sincere individuals who thought they were doing the right thing but whose paths ended in despair and destruction, as in the Rime of the Ancient Mariner. These people experienced too late the truth of Proverbs 14:12:

"There is a way which seemeth right unto a man, but the end thereof are the ways of death."

The average person today would smile approvingly if someone were to say to him, "You are a broad-minded person." No doubt, he would congratulate himself for not being labeled a narrow-minded individual.

Such a person would do well to realize that broad-mindedness is a description of one who travels the broad way that leads to destruction.

**Why is a person who is broad-minded heading for destruction?**

The battleground between God and Satan is the human mind. Any person who claims to be "broad-minded" or "open-minded" is totally unaware of spiritual warfare and is an easy target for false presuppositions which sound as if they are completely logical.

It would be wise for a "broad-minded" person to learn the definitions of the following terms:

1. **Opinion**
2. **Conjecture**
3. **Speculation**
4. **Theory**

Each of these words identifies an activity of the mind which, if out from under the control of the Holy Spirit, will lead to false presuppositions. If followed, false presuppositions will lead to the way of destruction.

**1. How reproofs come from personal OPINIONS**

The very definition of opinion describes its danger. An opinion is "a belief or conclusion held with confidence but not substantiated by positive knowledge or proof."

An opinion is often the commonly accepted feeling about a person or subject. It is a person's prevailing perception.

The word opinion is used in several passages of Scripture which more precisely describe its meaning.

In the day of Elijah, personal opinions about God hindered Israel's worship of Him and divided their nation. Elijah asked, "... How long halt ye between two opinions?..." (I Kings 18:21).
In I Kings 18:21, the Hebrew word for “halting between two opinions” is **l'l~W** (saw-EEP), which denotes a divided mind or conflicting sentiments.

The concept of personal opinions is expressed in II Corinthians 3:5. In this passage, Paul explains that he is neither able nor qualified to have a personal opinion about anyone or anything. He is qualified only to present the truth of God.

**How did opinions bring destruction?**

Personal opinions are formed usually by public sentiment, as in the case of the nation of Israel prior to entering the Promised Land.

God instructed the people to go in and conquer the land. Instead of obeying the command of God, they relied on the majority report of the spies and chose not to enter the land.

Their disobedience to the direct word of God cost the nation the lives of all those who were twenty years and older, with the exception of Joshua and Caleb. It also cost them forty years of delay as the nation wandered in the wilderness.

Only two of the twelve spies refused to adopt the majority’s opinion in regard to entering the Promised Land. As a result, they were the only men over the age of twenty who avoided destruction. God blessed them and their families.

**How dangerous ideas come from CONJECTURE**

The word conjecture is from two Latin words: **con**, which means “together,” and **jacere**, which means “to throw.”

The literal meaning of conjecture is “a throwing together of ideas” or “casting the mind” on some unknown event with the intent of making a judgment.

A comparable word in Scripture would be *suppose*. The definition of the Greek word for *suppose* is “to think under; to surmise.” In at least two cases in Scripture, the person who supposed was mistaken. For example, the Jews who heard the Apostles on the day of Pentecost supposed they were drunk. (See Acts 2:15.)

Festus, a Palestinian ruler, supposed that the Jews would have criminal accusations against the Apostle Paul when they brought him to trial. Instead, their accusations were against Paul’s teaching about the resurrection of Christ.

Festus based his conjecture on the scope of his jurisdiction and the request of the Jews for the death penalty. (See Acts 25:14–27.)

**How did conjecture bring death?**

Based on the Philistines’ success in transporting the Ark of the Covenant on a cart, David made the conjecture that he could use the same method to transport the Ark from the house of Abinadab to Jerusalem.

David was so sure of his conjecture that he organized a national procession to accompany the Ark. The mission went well until one of the oxen stumbled. Uzzah, one of the men involved in the procession, reached out to steady the Ark so it would not slip off the cart. However, by touching the Ark, he violated a command of the Lord and received the just consequence of death.

When David realized what had happened, he became greatly displeased against the Lord and fearful of Him. Uzzah’s death and David’s reaction could be traced directly to David’s conjecture regarding his mode of transporting the Ark.

He guessed that because God had demonstrated His glory through the Philistines’ use of a cart (see I Samuel 6:1–14), He would honor this method again. His evidence for conjecture was contrary, however, to the clear instruction of Scripture as to how the Ark was to be transported.

Two poles were to be put through rings on the sides of the Ark, and four men were to carry it on their shoulders. (See Exodus 25:10–15; Numbers 4:4–15; and II Samuel 6:1–11.)
3 How God judges

SPECULATION

Whereas opinions and conjecture are not necessarily based on facts, speculation is the intellectual examination of an idea. It is a train of thoughts formed by concentration upon an idea.

The word speculate comes from the Latin speculari and means "to spy out; to watch; to observe." This Latin word stems from specula, which means "watchtower."

The concept of speculation is usually associated with financial matters. A businessman will speculate on a financial investment. In this sense the word speculate means "to engage in the buying and selling of an item with an element of risk but with the chance of great profit."

The risk is simply not knowing all the facts or controlling factors which will affect the investment. God strongly rebukes such speculation:

"Go to now, ye that say, To day or to morrow we will go into such a city, and continue there a year, and buy and sell, and get gain: Whereas ye know not what shall be on the morrow. For what is your life? It is even a vapour, that appeareth for a little time, and then vanisheth away."

"For that ye ought to say, If the Lord will, we shall live, and do this, or that. But now ye rejoice in your boastings: all such rejoicing is evil" (James 4:13-16).

The word boasting is the comparable Scriptural word for "speculation." The broad road is filled with those who engage in this practice. The definition of the Greek word for boasting is "an insolent and empty assurance that trusts in its own power and resources."

Speculation is contrary to faith and fights against it. Faith is the spiritual discernment of knowing what God is going to do based on His revealed Word, whereas speculation is deciding what I am going to do based on a few known facts and hoped-for results.

Such speculation leads to an "evil eye" and will surely result in poverty. (See Proverbs 28:22.)

How did speculation jeopardize a nation?

Speculation is usually based on a combination of facts and hearsay. This is precisely the case regarding the altar which was built by three tribes in the nation of Israel, as reported in Joshua 22. One day the Israelites who were in Canaan "heard say" that "... the children of Reuben and the children of Gad and the half tribe of Manasseh [had] built there an altar by Jordan, a great altar to see..." (Joshua 22:10).

The whole congregation then speculated that the altar was to a heathen god and "... gathered themselves together at Shiloh, to go up to war against them" (Joshua 22:12).

Those who speculate usually speak before they confirm the accuracy of their facts. The leaders who had speculated about the altar approached those who had built it and sharply rebuked them.

It was only after they finished their speech that they learned that the altar was being built for reasons contrary to their speculation. The truth pleased all those who heard it, and a major civil war was averted.

4 How wrong conclusions come from THEORIES

While speculation is directed primarily toward predicting the future, theories are used to explain the past. Theories then become the basis for further speculation.

Our word theory is derived from the Greek word θεωρέω (theh-oh-REH-oh), "to see; to contemplate," which comes from a word meaning "spectator." A spectator in ancient times was an official who oversaw a public event such as games, sacrifices, and executions.
Theories are based usually on human presuppositions rather than on divine revelation. As such, they leave out Christ and are vain—devoid of true wisdom.

The danger of philosophical theories is explained in Colossians 2:8: “Beware lest any man spoil you through philosophy and vain deceit, after the tradition of men, after the rudiments of the world, and not after Christ.”

A theory is often an attempt to explain the important factors of life as they relate to us. Theories provide explanation from the past which becomes a rationale for the future.

**How did theories destroy a king’s heart?**

As a young man, Solomon must have read the instruction in the Law which required a king to write his own copy of the Law:

“And it shall be, when he sitteth upon the throne of his kingdom, that he shall write him a copy of this law in a book out of that which is before the priests the Levites:

“And it shall be with him, and he shall read therein all the days of his life: that he may learn to fear the Lord his God, to keep all the words of this law and these statutes, to do them:

“That his heart be not lifted up above his brethren, and that he turn not aside from the commandment, to the right hand, or to the left: to the end that he may prolong his days in his kingdom, he, and his children, in the midst of Israel” (Deuteronomy 17:18-20).

This passage is one of the clearest warnings against traveling on the broad way. The king was to follow the strait way and not to turn from it to the right or to the left.

It is significant that just prior to this command to have a personal copy of the Law, the following restrictions are given:

“But he shall not multiply horses to himself, nor cause the people to return to Egypt, to the end that he should multiply horses: forasmuch as the Lord hath said unto you, Ye shall henceforth return no more that way.

“Neither shall he multiply wives to himself, that his heart turn not away: neither shall he greatly multiply to himself silver and gold” (Deuteronomy 17:16-17).

As Solomon began his reign, he based his decisions on the Law of God. As a result, God gave him incredible wisdom and success. As he grew older, however, he began to theorize about life. His theories are outlined in the book of Ecclesiastes. These theories focus on man and his struggles rather than on God and His glory; thus, they are vain and empty.

**Solomon’s theories could have been his way of justifying the broad way which he had entered by multiplying to himself horses, wives, and gold.**

When Solomon left the strait way that leads to life, many followed him. In one generation the great kingdom which God had allowed him to build was divided, and civil war was raging.

**How does the broad way destroy our ability to understand knowledge?**

Most people believe that by learning information, we will acquire knowledge. This idea is not true. As we receive information through our physical senses, we must attach it to presuppositions which are in our hearts and minds.

If these presuppositions are according to the strait way, we will have Godly knowledge. If they are based on the opinions, conjecture, speculation, and theories of the broad way, we will have worldly knowledge.

**PROJECT**

Two types of knowledge (wisdom) are described in James 3:13-18. From this passage, list the results of the knowledge which would be characterized by the broad way and the knowledge which would be characterized by the strait way.

Write an illustration from your own life of how strife and conflict occurred when you entertained opinions, conjecture, speculation, and theories.

For example, how did your opinions of a brother or sister cause an argument? How did your conjecture of your parents’ discipline cause anger? How did speculation about being your own boss cause conflict? How did your theories about what brings happiness cause you to envy your friends?

Date completed  Evaluation _
HOW DID GOD ACCOMPLISH GREAT THINGS THROUGH AN ORDINARY MAN WHO CHOSE THE STRAIT WAY?

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In fact, had he not discovered God’s “strait way,” his life message might have been similar to that of another young man who also arrived in Chicago in 1856—Marshall Field, whose name is now associated with great material wealth. Instead, the name Dwight L. Moody symbolizes what God can do through one man who is totally dedicated to Him.

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Chicago in the mid-1800s was a sprawling, haphazard collection of rough wooden buildings along straight, broad streets which stretched westward from the shore of Lake Michigan as far as the eye could see. Teeming with activity and growing rapidly, the city was fast becoming the "general store" of the West. It was also the hub of the country's expanding railway system. Its pungent slaughterhouses and noisy foundries were busy day and night.

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1837–1899

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Not long after Dwight's father died, some stern-looking men came to his home. Dwight watched his mother cry as the men began to haul away their furniture. They scavenged the entire house, taking whatever had any value. They even took their one milk cow and a small supply of firewood.

Dwight later learned that these men were creditors who had come to collect a debt which his father had left unpaid. What a sober lesson to the young boy of the consequences of borrowing money.

Without the help of relatives in the area, the widow would not have been able to keep the family together, especially when a month after the funeral Mrs. Moody gave birth to twins. Dwight's mother, however, was a very determined woman.

She also was concerned that her children receive religious training. The family belonged to a church in town, and Mrs. Moody made sure her boys always went to Sunday school, but the training Dwight received there was of little consequence. He grew up without knowing the basic doctrines of the Bible or even how to look up Scripture references.

Actually he received little education of any sort. Because of the family's financial situation, all the boys had to go to work as soon as they were able to earn money. Therefore, their school attendance was erratic. It has been estimated that Dwight received the equivalent of a fifth-grade education.

The following Sunday morning he dutifully attended his uncle's church. He was assigned to a class of young men his age taught by a man named Edward Kimball. When he arrived, the class had already started. Mr. Kimball smiled at the newcomer and gave him a Bible, saying they were studying a passage in John.

As Dwight sat down and began thumbing through Genesis looking in vain for the verse, the other fellows began to snicker. Mr. Kimball saved him from further embarrassment by quietly handing him a Bible already opened to the right page. Dwight remembered little of the teacher's lesson that morning, but he never forgot that simple act of kindness.

After the class was over, Dwight attended the preaching service. He found a seat in the balcony, yawned through the hymn-singing, and fell fast asleep during the sermon. For nearly a year, Mr. Kimball's Bible teaching and Dr. E. N. Kirk's preaching seemed to have little effect on this young man whose heart had already been captured by the dream of wealth.

Dwight in Boston at age seventeen.

During his two years in Boston, Dwight regularly attended Sunday school and worship services at the Mount Vernon Congregational Church. At first he went just because his uncle required it, but then something in his life changed.

Full of almost limitless energy, young Dwight tended to be rather wild. He liked all kinds of sports: footraces, swimming, tobogganing. His favorite pastime was thinking up practical jokes for unsuspecting people. Some of his "jokes," however, were quite cruel. He also failed to control his tongue, and as a result he often was involved in fistfights.

Though he was homesick for his family and for Northfield, Dwight did not miss the farm work.

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He much preferred the challenge of trying to persuade people to buy shoes. His intense competitiveness frustrated the other clerks, and his aggressive approach irritated some customers, but these very qualities soon made him the top salesman at his uncle’s store.

Even those who knew him well probably saw little outward evidence of the spiritual battle which was raging in Dwight’s heart during the spring of 1855. Though he had been going to church only as a duty and not because he had an interest in spiritual things, the seeds of God’s Word planted during those times were beginning to sprout.

In April the church held a series of evangelistic meetings. During this time Mr. Kimball became concerned for the conversion of his Sunday school class members. One Saturday morning he headed for the shoe store to talk to Dwight Moody about his soul.

On the way to the store, Mr. Kimball began to have second thoughts about visiting Dwight. The young man might be busy with customers, or the other clerks might ridicule him for talking with his Sunday school teacher. As Mr. Kimball was deliberating, he walked right past the store. When he realized what he had done, he turned around and resolutely walked inside.

Dwight was in the back room wrapping up boxes of shoes. Mr. Kimball did not give a polished presentation of the Gospel or use carefully prepared arguments. He simply told Dwight that Christ loved him and then with tears in his eyes asked if he wanted to accept Jesus Christ as Savior. Dwight was ready. They prayed, and Mr. Kimball left the store. The whole interview had taken only a few minutes, but the results would have a world-wide impact which would last for eternity.

When Dwight presented himself for church membership a month later, one of the men on the examining committee asked him, “Mr. Moody, what has Christ done for you and for all of us?”

After an awkward silence, the young man managed to say, “I don’t know. I think Christ has done a good deal for us, but I don’t think of anything particular as I know of.” Rather than admitting him to membership in the church, they assigned two deacons to instruct him.

When he came before the committee again nearly a year later, his answers to doctrinal questions were only somewhat clearer than before, but the men agreed to admit him simply because he was so obviously sincere in his determination to follow Christ.

**2 THE STRAIT WAY REQUIRES SURRENDER OF PERSONAL AMBITION.**

For several months Dwight had been thinking about going West: then a disagreement with his uncle led to a quick decision to head for Chicago. In the fall of 1856 he began his trip West. He passed within twenty miles of Northfield but did not stop to say good-bye to his mother.

Within a few days of his arrival in Chicago, Dwight found a job with a Lake Street shoe merchant. With enthusiasm he pursued his $100,000 dream.

If business was slow, Dwight would go out into the street and sell shoes to those who passed by the store. His aggressive tactics and proud attitudes created reaction similar to that which he had received in Boston. He did not mind the reaction, however, because his focus was on the profits he was making. Soon he had enough savings to buy a piece of property. This he sold and used the profits to buy another piece of property.

Dwight frequently wrote home about how easy it was to make money in Chicago. In one letter he told his mother about men who had made a fortune in the city.

One of the young Chicago businessmen who began amassing a fortune during those years was Marshall Field, the famous retailer. He and D. L. Moody lived in the same boarding house for a time, but they would later choose to follow very different ways.

Dwight soon accepted a job with another shoe and boot company and became a traveling salesman. He was happy and excited about what he was doing. However, a new interest began to challenge his desire to make money.

As he grew in the Lord, he decided to join a church which preached the Gospel. He began to apply his shoe-selling enthusiasm to bringing children to church: he rented four pews and filled them each week.

On Sunday afternoons he and a friend went into the slums to give Gospel tracts to poor families in their shanties and to sailors in the saloons.
One day he learned of a mission Sunday school in a very poor section of town. When he asked if he could help, the superintendent told him that there were enough teachers but casually added, "If you want to teach, you will have to round up your own class." This was all the challenge that D. L. Moody needed.

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D. L. Moody (in cap) and John Farwell gathered up rough and ragged boys from the Chicago slums to form their own Sunday school.

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The man agreed and immediately hired a carriage. They went to the tenement where one of the girls lived. The teacher simply explained that he was having to leave Chicago and might die soon.
He told her that she needed to trust Christ and urged her to settle the matter right then and there.

With tears in her eyes, the girl prayed and invited Jesus Christ into her life. That same scene was repeated time after time in the next few days as the men went to each of the members of the class. Finally, on the night before the teacher was to leave town, the whole class gathered. He read some Scriptures, they sang, he prayed for them, and then all the girls prayed.

Dwight had never heard such prayers. With simple, heartfelt words, they each prayed for their dying teacher. As he listened and realized what an impact the teacher had had on these young lives, Dwight knew that God was calling him to give himself full-time to this kind of ministry.

Dwight bought a little pony, which he rode through the slums looking for more children to invite to Sunday school.

After three months of struggling with the decision, he determined to resign from his job. His earnings dropped from $5,000 a year to $150 a year, but he knew that he had made the right choice.

He used his savings and decided that if he ran out of money, he would take that as a signal that God wanted him to get back into business.

He moved out of the boardinghouse and began sleeping on a couch in one of the YMCA rooms. He ate at inexpensive restaurants or snacked on crackers and cheese so he would have more money for his missionary activities.

As he went from flat to flat visiting poor families, he usually took a bag of groceries, a little cash to buy medicine, or a basket of coal or firewood. He made arrangements with some doctors to treat the slum residents without charge. These social outcasts knew that the young stranger's main concern was the salvation of their souls. Soon 1,200 children were attending the meetings.

The North Market Sunday School became widely known throughout the nation. One day in late November of 1860, President-elect Lincoln visited the Sunday school and spoke to the children.

3 THE STRAIT WAY DEMANDS A SINGLE FOCUS.

The tragedy of the Civil War brought about a new dimension in the ministry of Dwight Moody. Seventy-five young men from his North Market Sunday School volunteered for military service.

A sprawling military training center called Camp Douglas was set up about ten miles south of Chicago. Mr. Moody began spending much of his time arranging evangelistic meetings for the soldiers. The men were so responsive that eight or ten meetings were required every night.

Of necessity Mr. Moody began to do more preaching. His deep concern for the souls of these young men who were going to the battlefront helped him overcome his shyness in speaking before groups.

During this time he was also responsible for leading the noon prayer meetings of the YMCA, doing relief work, and traveling to Sunday school conventions.

As demands on his time increased, Dwight saw the need of a "helpmeet." The love that he first felt toward Emma had continued to grow during the previous six years, and in August of 1862, Dwight and Emma were married.
The First Baptist Church where Dwight and Emma were married was right across from the old Chicago courthouse.

In his role of unofficial chaplain, Mr. Moody made nine trips to the front lines during the war. He took supplies for the wounded and spent many long days and weary nights ministering to dying men. By the end of the war, he had matured into a strong and effective preacher.

During these years a building was erected on Illinois Street to house the Sunday school, and it was completed in 1864. For years adults had been coming to Mr. Moody's evening meetings, and a number had been converted. He always encouraged them to join one of the evangelical churches, but many of the poor people felt uncomfortable in the well-to-do congregations.

These converts continually pressed Mr. Moody to form a church. Once the Sunday school had a permanent home, there was even more support for this idea. Mr. Moody was reluctant—he did not want to seem sectarian or be accused of drawing members away from other churches. However, when an increasing number said they would go to no other church, he decided to proceed.

The Illinois Street Church was organized in 1864 as an independent congregation. At first, students from the nearby Congregational seminary came to fill the pulpit. Then one Sunday evening when the student preacher failed to appear, Mr. Moody had to take the service. After that the people unanimously decided that he should preach every Sunday night.

Mr. Moody found these sermons much more difficult to prepare than his extemporaneous talks for children or soldiers, but it was in this preaching that he began to develop and refine the techniques of mass evangelism he would later use.

Leaders at the seminary offered to ordain Mr. Moody in spite of his lack of education. The idea had some appeal to him. Ordination would be an honor and would perhaps increase his respectability in the eyes of some. Even though he refused at that time, a year later he enrolled in the newly opened Baptist Theological Seminary in Chicago.

His stay was short-lived. His decision to withdraw from the seminary proved to be wise—he was able to have a far wider influence in Britain and America because of his identification with laymen rather than with clergy.

During the winter of 1866–1867, Mrs. Moody suffered greatly from asthma. Her doctor prescribed a sea voyage. Mr. Moody had long dreamed of visiting Britain in order to meet his three heroes: George Williams (founder of the YMCA), George Mueller, and Charles Haddon Spurgeon. Besides, Mrs. Moody had relatives there, including a sister whom she had not seen in eighteen years. So they set out for England.

Mr. Moody was seasick for the entire two-week voyage. When he arrived in Liverpool, he was not favorably impressed with the damp, rainy conditions. In a letter home, he wrote, “I do not expect to visit this country again.” By the end of the three-month visit, both the weather and his opinion of the country had improved; nevertheless, the Moodys were more than ready to go home to America.

Mr. Moody saw the early YMCA work as an effective means of reaching people with the Gospel. In fact, he testified, “Under God it has done more in developing me than any other agency.” Therefore, upon his return to America he dedicated much time and effort to this organization. He was instrumental in gathering the funds to build the first YMCA building in the world, Farwell Hall, in Chicago.
The original Farwell Hall was an impressive five-story building, housing a variety of facilities, including space on the first floor for the fire department. However, in January 1868, the brand-new building caught fire and burned to the ground.

4 THE STRAIT WAY COMPELS LOYALTY TO TRUTH AND LOVE.

While in Britain the previous summer, Mr. Moody met a young man by the name of Harry Moorhouse. Mr. Moody had heard the name before and knew that Mr. Moorhouse was a converted pickpocket who was sometimes called the Boy Preacher. Mr. Moorhouse looked up at Mr. Moody and said, "Ah'm 'Arry Moorhouse. Ah'll coom and preach for you in Chicago."

Mr. Moody questioned in his mind whether this lad could preach. However, he managed to give him a gracious response. "If you ever come to America, let me know." Then Mr. Moody forgot the conversation. Little Harry Moorhouse was twenty-seven but looked seventeen. He did not forget what Mr. Moody said. That autumn Mr. Moorhouse traveled to New York and wrote Mr. Moody offering again to preach for him.

Mr. Moody was surprised to receive the letter and replied with a brief note, "If you come West, call on me." Mr. Moorhouse's next letter reached Mr. Moody several weeks after the Farwell Hall fire when he had many urgent things on his mind. This time Mr. Moorhouse said he would be in Chicago soon and would still like to preach. Once again Mr. Moody tried to divert him with "If you come to Chicago, drop in on me."

Mr. Moorhouse replied with the date and time of his arrival. It was on a day when Mr. Moody would be out of town, so he left instructions for the deacons to let Mr. Moorhouse preach only one night and to evaluate him carefully. The deacons were so impressed with Mr. Moorhouse's message that they invited him to speak the following evening.

When Mr. Moody returned, he asked his wife about the "boy preacher." She replied, "He has been well received, but he preaches a little differently from you."

"Then he must be wrong," was Mr. Moody's immediate response.

"He preaches that God loves sinners," Mrs. Moody said, "and he backs up everything he says with the Bible."

Even though Mr. Moody was congenial, cheerful, and friendly on a personal level, his messages from the pulpit were stern. He preached that God hated the sinner as well as the sin, and he emphasized the wrath of God. Therefore, he decided that he would not like Mr. Moorhouse's preaching.

Sunday morning Mr. Moody was surprised to see the members of his Illinois Street congregation carrying their Bibles as they arrived for the morning service. Mr. Moorhouse announced as his text John 3:16, but he started at Genesis and went all the way through Revelation, tracing the theme of God's love for sinners.

By the end of the message, Mr. Moody was in tears and was mentally discarding two or three of his favorite sermons. He knew he could no longer preach that the Lord hates sinners.

That night the little English preacher took the same proposition and proved it again with Scripture after Scripture. At the close, Mr. Moody jumped up and announced that Mr. Moorhouse would preach every night that week.

Every evening Mr. Moorhouse began with the same verse. Then following a different path through the Scriptures, he always brought his listeners back to the same theme: the love of God for sinful men.

Not only was Mr. Moody's preaching transformed by this week with Harry Moorhouse, but his whole approach to Scripture was revolutionized. Before this time Mr. Moody had considered the Bible a weapon which he used to browbeat sinners into surrendering to Christ. Although he regarded the Bible as the Word of God, he treated it essentially as a collection of ideas upon which to hang his sermons. At the same time he was ignorant of much of the Bible's message.
Mr. Moorhouse showed him how to study the Bible and how to use cross-references to allow Scripture to be its own commentary. Mr. Moody started rising early every morning before the rest of the family was awake. He would light the oil lamp in the study and spend an hour or so poring over his big Bible, often scrawling notes in the margins.

After this change in his life, D. L. Moody became very much a man of the Book. His new emphasis on the love of God gave him a greater effectiveness in urging people to serve the Lord.

In 1870 at the YMCA International Convention in Indianapolis, Mr. Moody heard a businessman by the name of Ira D. Sankey sing. Immediately he knew that Mr. Sankey was the man for whom he was looking to work with him in Chicago. He went up to Ira Sankey and asked, “What is your line of work?”

“Government service,” replied Mr. Sankey, “Internal Revenue.”

“Well,” said Mr. Moody bluntly, “you’ll have to give that up.”

Mr. Sankey did not quite understand. “Give what up?”

“Quit your job and come to Chicago to help me in my work.”

Mr. Sankey was flabbergasted, but before the conference was over Mr. Moody used him to draw a crowd for a street meeting, and the singer agreed to pray with him about leaving his home state of Pennsylvania and going to Chicago. Mr. Sankey said later: “I presume I prayed one way and he prayed another. However, it took him only six months to pray me out of business.”

Early in 1871, Mr. Sankey came to Chicago to spend a week working with Mr. Moody to see if the arrangement would suit him. He sang, visited poor families, and spoke at the noon prayer meetings. At the end of the week, he resigned from the IRS, and his name would ever after be linked with Mr. Moody’s.

5 THE STRAIT WAY MEANS WALKING IN THE SPIRIT, NOT IN THE FLESH.

As the hot, dry summer of 1871 gradually turned into an even drier fall, Mr. Moody had a new decision to make regarding his life work.

In 1868, an election year, he had spoken at a Christian convention held in the capital of the newly formed state of Kansas. Afterward, some political leaders approached him to ask him to run for public office. His response had been, “I have got a higher service than that!”

His higher service involved YMCA work, relief work among the poor, a tract campaign distributing thousands of tracts a week, fund-raising, organizing a group of young men to witness in saloons and on street corners, and holding the noon prayer meetings and evangelistic services.

In fact, he was so busy with all of these activities, as well as committee meetings and office work, that if a man came to him to ask questions about his salvation, Mr. Moody felt he would have to tell him, “I can’t talk to you now; I’ve a committee meeting to attend.”

For months Mr. Moody sensed that the Lord was calling him to become a full-time traveling evangelist, but he resisted the idea because his roots were in Chicago. He had a lovely wife, two small children, and a fine home, and he had no desire to travel all over the country to preach.

At the same time, he was becoming aware of a serious lack in his spiritual life, although at first he refused to acknowledge it. Two Godly women discerned that Mr. Moody was preaching “in the flesh.” They would come and sit in the front row and pray the whole time he preached. Afterward they explained to him, “We have been praying for you.”

A bit irritated, he asked, “Why don’t you pray for the people?”

They explained that he was the one who needed more of God’s power.

“I need the power?” huffed Mr. Moody.

Yet, it was true, as is clear from the records of his behavior and comments during this period. He gauged his success by two criteria: how busy he was and how large a crowd he was drawing. Often he wore out his co-workers with his ceaseless activity. If attendance was up at his meetings, he would bubble over with excitement, but if the turnout was not as great as expected, his morale would plummet.
The two ladies continued to pray. Mr. Moody talked with them occasionally. Finally he began to meet with the women each Friday to pray for God's power in his life. Soon he sensed a spiritual hunger growing in his heart, which grew to be an agonizing ache. He felt he could not even go on living if he did not receive the power of the Holy Spirit for service.

For weeks his prayer went unanswered. He realized later that it was because he was still resisting God's call to be totally available for a wider ministry. Mr. Moody seemed to be tied to the two buildings and the successful programs which had resulted from his years of hard work. How could he leave the Illinois Street Church and Farwell Hall in the hands of others?

One Friday in October of 1871, he prayed an especially earnest prayer for God to baptize him with fire. That Sunday evening the Farwell auditorium was filled to its capacity of 2,500 people. Mr. Moody preached an excellent message, and at the end Mr. Sankey sang a solo. As he came to the words "and death is nigh," his voice was drowned out by the clanging of bells as fire engines passed outside.

There was a great deal of shouting in the street, and the audience was becoming alarmed. Rather than giving an invitation, Mr. Moody decided to close the service, urging everyone to think about the claims of Christ and to come back the following week. He did not know that many of them would die that night and that there would be no Farwell Hall for the others to come back to the next week.

Going out the back door, Mr. Moody saw a red glow to the southwest and realized that several buildings were on fire. The wind was blowing with such force that he knew it would not be long before the flames spread. He rushed home to check on his family. While Mrs. Moody dressed the children (then aged seven and two), he went over to Illinois Street to rescue some valuables. By the time he returned home, the whole block was burning—including the church.

Panic reigned in the streets. People by the hundreds began fleeing their homes. A neighbor who had a horse and buggy agreed to take the Moody children to a northern part of the city. Mr. and Mrs. Moody gathered up what few belongings they could load into a baby carriage and started out on foot for the home of a relative who lived west of the city.

Although the Moodys escaped the flames, for twenty-four hours they did not know if their children were safe. The safety of Ira Sankey was also unknown. Therefore, it was a joyful time when the Moodys were reunited with their children and learned that Ira Sankey had been able to board a train to be with his family in Pennsylvania.

The fire that began as a small blaze in a barn eventually became a holocaust, enveloping practically the entire city. It spread so fast that many people had no time to save any of their possessions but literally had to run for their lives.

Not until Wednesday did the huge fire burn itself out. A great portion of the city of Chicago was nothing but a pile of smoking ruins. The only thing the Moodys recovered from the ashes of their house was a toy iron stove. Both the Illinois Street Church and Farwell Hall were gone.

Mr. Moody then traveled to the East Coast to raise funds for a new tabernacle and to assist thousands of homeless people.

The great fire destroyed over 18,000 houses and buildings and left 90,000 people homeless.

Mr. Moody received a generous response from many people, including John Wanamaker. In the midst of this emergency work, however, an
even greater emergency was taking place within the heart of Mr. Moody. He continued to cry out to God for the power of the Holy Spirit; yet, he still resisted God's call for a wider ministry.

His Chicago ministries lay in ashes, and although he could not face the prospect of rebuilding from scratch, he did not want to let go of them. One day as he walked down a busy New York City thoroughfare, with all the noise of the city clamoring in his ears and being jostled by throngs of people, he quietly surrendered.

He found a place to pray. The room seemed filled with God's holy presence. Of those hours alone Mr. Moody said later, "I can only say that God revealed Himself to me, and I had such an experience of His love that I had to ask Him to stay His hand."

Mr. Moody emerged from that room a changed man.

6 THE STRAIT WAY FORCES US TO SEEK ETERNAL RICHES.

Mr. Moody returned to Chicago but not to stay. He had collected enough money to build a 1,400-seat tabernacle of pine boards to serve as a center for relief work and evangelism. When it opened on Christmas Eve, it was the only building in the burned-out section, a forty-five minute walk from the nearest houses. A week later the building was nearly filled for the New Year's Eve service.

In January the Moodys went to New York, and the family went on to Northfield while Mr. Moody held a series of meetings in Brooklyn. It was clear now, that though he would not abandon the work in Chicago, the city no longer had an exclusive hold on him.

That summer Mr. Moody went to Britain by himself, hoping to study and learn from the English Christians. He did accept a few invitations to preach but tried to keep these to a minimum. The Lord used this time to give him a clearer vision of the way He had for him.

One morning after an all-night prayer session, he was having fellowship with a preacher friend named Henry Varley. A casual remark this friend made began to transform Mr. Moody's thinking: "Moody," he said, "the world has yet to see what God will do with a man fully consecrated to Him." Mr. Moody did not reply, but he remembered those words and pondered them for weeks.

He was convinced that Mr. Varley was right, and he had said "a man," not "an educated man," or "a sophisticated man." He meant any man! Mr. Moody resolved that by the Holy Spirit's power, he would be that man.

As D. L. Moody heard Charles Spurgeon preach, he realized for the first time that it was not Mr. Spurgeon who was doing a great work in London—it was God.

Mr. Moody asked himself, "If God could use Mr. Spurgeon, why should He not use me?"

Charles Haddon Spurgeon 1834-1892

Mr. Moody reluctantly agreed to preach on a Sunday morning at a rather dead London church. The people were so unresponsive that Mr. Moody wished he had declined. When one woman went home to her invalid sister after church and told her who had preached, the bedridden girl shouted for joy. "That means God has answered my prayers!" she exclaimed.

From under her pillow she pulled out a crumpled, yellowing newspaper clipping about Mr. Moody's work in Chicago. After reading it years before, she had begun praying that God would bring this man to their church. Day after day she had prayed faithfully without an inkling of how God was answering.

Then things started happening. The next time Mr. Moody preached, there was an electric excitement in the air. The people held on to every word. At the end of the message, Mr. Moody asked those who wanted to accept Christ to stand. So many people rose all over the chapel that he thought they must have misunderstood the invitation. He had them sit down so he could explain again what it meant to follow Christ. This time even more people stood to indicate their willingness to accept Him.

Mr. Moody asked those standing to move to a room across the hall, and the room soon was packed. He spoke to them for a few minutes about repentance and faith and gave the invitation a third time. With no hesitation, the whole group rose as one. He told them to meet with their minister the following night.
On Monday morning, Mr. Moody had to leave for another city. On Tuesday the church wired him insisting that he come back. He returned and held meetings in that church every night for two weeks. Over four hundred people were converted during that time.

Mr. Moody held another series of meetings at Chelsea Chapel, and God used him in a mighty way. By this time, Mr. Moody was considering the possibility of launching a full-scale evangelistic tour all over England.

Back in Chicago for the winter of 1872–1873, he informed everyone that he would not be staying long. His thoughts were mainly of Great Britain. He had begun to raise the money for a new Farwell Hall and for replacing the Tabernacle with a more permanent structure.

It was also during this time that he purchased the property at the corner of LaSalle Street and Chicago Avenue which would be very important in later years.

The new church building which was erected after the fire was used in this half-finished state for two years because not enough money was available to complete the upper stories.

Mr. Moody was eager to get back across the ocean, but he did nothing to make arrangements for the tour. Apparently he believed that his English friends were making all of the preparations. The lack of communication from them did not bother him.

He did, however, receive several letters from a YMCA leader named George Bennett. Mr. Bennett was inviting Mr. Moody to preach in York, England.

Because Mr. Moody was expecting his British sponsors to pay all his expenses, including steamship fare from New York to Liverpool, it seems that he would have been suspicious that something was wrong when it came time to embark and no money had arrived.

Instead Mr. Moody used some funds given him by Mr. Farwell and purchased tickets for himself and his family and for Mr. and Mrs. Sankey. The party arrived in England in mid-June. To the surprise of Mr. Moody, two men who were to sponsor the tour had died and the third had not made any arrangements.

Stranded three thousand miles from home with no itinerary and no funds, Mr. Moody calmly told Mr. Sankey, "God seems to have closed the doors. We'll not open any ourselves. If He opens the door, we'll go in. If He [doesn't], we'll return to America."

Later that day Mr. Moody remembered the invitation from the YMCA worker in York, England. Mr. Moody and his party arrived there late Friday night, to the surprise of Mr. Bennett.

Over supper in the Bennett home, Mr. Moody proposed to the young man that they make the necessary preparations on Saturday and begin holding meetings on Sunday.

It would be hard to imagine a more haphazard beginning for an evangelistic campaign, but the disorganization of things made it all the more obvious that the subsequent revival was of the Spirit and not because of man's efforts.

For the first week and a half, attendance at the meetings was good, but the spiritual atmosphere seemed very cold. Accustomed to the slow funeral dirges used in most English churches of the day, the people at first thought Mr. Sankey's Gospel songs were disgraceful. It was not long, however, before they found themselves humming "Hold the Fort" in spite of themselves.

Similarly, they were initially shocked by Mr. Moody's informal style of preaching, but gradually they became intrigued. His emphasis on Christianity as a relationship with God through Jesus Christ rather than merely a set of doctrines was like a fresh spring breeze.

After a week and a half, scores of people came under conviction and responded to the invitation. One of the local pastors who was skeptical at first about Mr. Moody's meetings was a young man named Frederick B. Meyer. After seeing how God was working in the lives of the people of his congregation, he also attended the meetings and was deeply moved by what he heard and saw.

Leaving York, Mr. Moody and Mr. Sankey went on to Sunderland and held a campaign lasting five weeks. The work there was hindered by one of the local ministers who opposed the evangelists.

History Resource C (Boodlet 49—Preliminary Edition)
One man whose life was touched and dramatically changed by the York revival was a local pastor named F. B. Meyer. He later became a leader of evangelicals in England and wrote over three dozen books which have ministered to millions.

At the end of the summer, they moved on to Newcastle-upon-Tyne, and Mr. Moody was determined to stay long enough to dispel the prejudice among the different classes of society. At first the meetings were attended mostly by the middle-class church people, but interest spread among the rich merchants, shipbuilders, and mine-owners as well as the poor coal miners and slum-dwellers.

The local newspaper praised Mr. Moody for the lack of sectarianism and for not passing the offering plate at every meeting; however, it still appeared that the campaign in that area might soon decline.

Then came the invitation to Edinburgh. Mr. Moody balked at first, because he thought he would be despised by the Scots for his lack of education. In addition, most church people in Scotland sang only the metrical versions of the Psalms and would be offended by Mr. Sankey’s “informal” kind of music.

Knowing that he would not be accepted in Britain if he failed in Scotland, Mr. Moody decided to try to preach in Edinburgh anyway. In seven weeks, the evangelists rose from being practically unknown to being famous. By Christmas, the blaze in Edinburgh was setting all of Scotland on fire. The meetings continued even after Mr. Moody and Mr. Sankey left town.

With fame and success came a new problem—people wanted to pay Mr. Moody. In early 1874 he wrote to a friend in Chicago: “For the last three months I have had to refuse money all the time. At Edinburgh they wanted to raise me two or three thousand pounds but I would not let them. I told them I would not take it.”

Mr. Moody was often accused by the press of operating his campaigns for personal gain. However, when he did accept gifts for his personal support, he would often send them to America for the evangelistic work of D. W. Whittle and P. P. Bliss. (See Wisdom Booklet 43, pages 2231-2247.)

The farewell service of the Glasgow campaign was to be held in the Crystal Palace, but Mr. Moody ended up preaching outdoors to the 40,000 who could not get inside.

The Glasgow campaign fanned the flames of revival all through the spring. It climaxed with Mr. Moody’s preaching to a huge crowd of 15,000 from the box of a carriage in the Botanical Gardens.

After working in various towns in northern Scotland for short periods during the summer, the now-famous evangelists crossed over to Ireland.
In spite of religious tensions and a warning about possible opposition from the large number of Roman Catholics, the campaigns of Belfast and Dublin were very successful. From there they went on to Manchester, Sheffield, Birmingham, and Liverpool.

When Mr. Moody reached London, meetings were held in four separate locations around the city: the Agricultural Hall (seating 15,000), the Opera House in London’s fashionable West End (seating 5,000), and two tabernacles constructed especially for the occasion. Part of the time the evangelists led two services each evening, making a quick dash from East End to West End in a horse-drawn cab.

This is one of the two halls built especially for Mr. Moody’s London campaign in 1875.

The campaign lasted for four busy months, making an impact on every level of London society. At first the vast majority of those attending were of the middle class, but gradually more of the urban poor were drawn in. These were the masses Mr. Moody had a burden for reaching.

The powerful and wealthy people were touched as well. William Gladstone, Prime Minister from 1868 to 1874, met privately with Mr. Moody and sat on the platform with other dignitaries at several meetings. Although the Queen declined an invitation to attend, the Princess of Wales came numerous times, as did many earls, ladies, dukes, and duchesses.

Attendance figures are very difficult to pinpoint, but it is certain that Mr. Moody spoke to over one and a half million people during the campaign. Because Mr. Moody refused to allow any tallying of the number of conversions, to estimate how many responded is even more difficult. It is accurate to say that tens of thousands were drawn to the Savior during those months.

The London campaign proved to be a fitting climax to Mr. Moody’s two years of ministry in Great Britain. Various observers testify that he had matured remarkably in his preaching while retaining the attractive simplicity of his personality.

Major D. W. Whittle, one of Mr. Moody’s closest friends, commented on the changes after the evangelist had returned to America. He said Mr. Moody spoke with greater power than before, but that he was keenly aware that it was all of God. In spite of his incredible popularity and success, Mr. Moody displayed a childlike humility.

Newspapers and magazines in the U.S. had followed closely his successes in Great Britain. When Mr. Moody arrived in New York in August of 1875, he was an international celebrity. Reporters (and everyone else) were eager to know when and where he would begin holding campaigns in America, but Mr. Moody would not say. He took his family straight to Northfield.

Mrs. Betsy Moody, the mother of D.L., was now seventy. Though proud of her son’s accomplishments abroad, she was a staunch Unitarian and had told him several times that she intended to be one until she died. Still glowing from the revival fires of England, Mr. Moody longed to win her and his other Northfield relatives and neighbors to Christ.

While Major Whittle, Mr. Bliss, and Mr. Sankey were there to confer about future plans, Mr. Moody decided to hold a short series of evangelistic meetings. Mr. Moody’s mother, firm in her Unitarian convictions, attended. On one of the last evenings, when Mr. Moody invited those who wanted to trust Christ as Savior to stand, she rose. Mr. Moody was so overcome with emotion that he had to ask someone else to close the service.

Mrs. Moody had said she would be a Unitarian until the day she died, but God spoke to her through her famous son’s preaching. She accepted Christ as Lord at the age of seventy, was baptized, and lived to be ninety.

Then on the last night, Samuel, Mr. Moody’s closest brother, also accepted the Lord. These two victories made Mr. Moody want to plant his roots more deeply into Northfield soil. However, he still might have made his home in Chicago again if it had not been for his mother’s chickens.
Mrs. Moody’s hens kept wandering beyond the fence into her neighbor’s cornfield, causing the owner of the field to be quite upset. Mr. Moody had decided he would buy that strip of land so his mother would no longer have to worry about the hens. One morning he met the neighbor coming down the road.

When Mr. Moody offered to buy that part of the field, the neighbor realized that he would not want to sell anything less than the whole place. Mr. Moody asked him how much it would cost. The man responded with a price well above the value of the property, expecting to negotiate long and hard, but Mr. Moody surprised him by saying he would take it—all twelve acres, the house, and the barns.

Mr. Moody’s plan was to keep only the strip of land for the chickens and to sell the rest. As he considered the matter, he decided that the house could serve as their summer home while he was engaged in campaigns in Eastern cities. So because of the chickens, the Moodys settled at Northfield for the rest of their lives rather than in Chicago.

The Moodys’ house at Northfield

Mr. Moody was able to buy the house only because of a large gift he had received from a wealthy Englishman, Edward Studd, who had been converted in the London campaign. Mr. Moody had sent back the check twice, insisting that he did not need it, but Mr. Studd had persisted.

While they were in Britain, Mr. Moody published a hymnbook containing many of the Gospel songs made so popular by Mr. Sankey. The demand for the book was so great that several editions had to be printed.

Even though a single copy sold for a very reasonable price, the royalties soon amounted to quite a large sum. More money was expected to accumulate, and a book of Mr. Moody’s sermons had recently been issued as well. An American version of the hymnal was in preparation.

Mr. Moody said, “I am not going to give any man ground for saying that we’re making a gain out of preaching the Gospel.” Therefore, a trust was set up to receive all the royalties from these publications. The trustees made a large gift to the Chicago Avenue Church to help pay for the completion of its new building. Smaller grants were made to various other worthy causes.

The Chicago Avenue Church was able to complete the new building largely because of the donation of hymnbook royalties.

Mr. Moody’s income depended upon occasional gifts from wealthy friends and privately raised honoraria for his American campaigns. He was able to support his family, but there were times when the money ran short. Meanwhile, royalties continued to come in. By the time Mr. Moody died, the trust had distributed well over a million dollars. Had he not chosen to follow the strait road in regard to this money, he could have been a very wealthy man.

The evangelists did not advertise what they had done. It was years later before some of Mr. Moody’s closest friends knew that he had given up any claim to the royalties.

A famous New York attorney was asked to review and validate the necessary documents in setting up the trust. This lawyer hated Christians and had publicly accused Mr. Moody and Mr. Sankey of making large profits from their meetings.
After looking over the papers, he said that he would withdraw his charge that they were taking advantage of people. Instead he stated that they were absolute fools for letting such a large fortune slip through their fingers.

7 THE STRAIT WAY NECESSITATES A LIFE OF SELF-CONTROL.

That winter, campaigns were held in Brooklyn, Philadelphia (see Wisdom Booklet 38, History Resource), and New York City. It was the same story everywhere: vast crowds, many conversions, and newspaper opposition which abated by the end of the campaign.

Crowds flocked to P. T. Barnum’s Hippodrome in New York City, eager to hear the man whose preaching had ignited revival fires all over Britain.

In spite of good attendance, Mr. Moody closed the New York campaign earlier than planned. He was upset because many of the local pastors had left on vacation or were planning to leave before the meetings were to end. He thought they should be as concerned about the evangelization of the city as he was—concerned enough to stay in town until the end of the campaign.

His resentment came out in the form of some critical remarks he made at an afternoon service. He impulsively spoke harshly about a gossipy high-society newspaper to which several prominent ministers regularly contributed.

He knew as soon as he had spoken that he should not have mentioned it. One minister was greatly offended and left for Europe without speaking to Mr. Moody.

Because of resulting tensions, Mr. Moody decided to end the campaign two weeks before it was scheduled to close. He left New York feeling that even though these meetings had been the best he had ever had, he had grieved the Holy Spirit by his lack of self-control.

The Moodys went South for a brief vacation, but instead of resting, Mr. Moody could not resist the temptation to join in a campaign Major Whittle had been holding in Georgia. It was there that Mr. Moody admitted to his friend that he felt “bankrupt” in terms of sermon material. He doubted that he would return to England and expressed a need to study and reflect.

He seemed to sense that God wanted to do some refining and polishing in his spiritual life and that he would have to slow his pace in order to stay on the path as it narrowed once again.

Through the fall and winter of 1876, Mr. Moody held a campaign in Chicago. As it began, he was burdened with the thought that God was about to take him through some trials.

Before the week was over, he received the news that his beloved brother Sam had died. Leaving Mr. Whittle in charge of the revival services, he went home for the funeral. Then at the beginning of the year, he was stunned by the news of the tragic deaths of Mr. and Mrs. Bliss in the accident at Ashtabula, Ohio, on December 29, 1876.

When a seventy-foot-high railroad bridge collapsed in the middle of a blizzard at Ashtabula, Ohio, the train in which P. P. Bliss and his wife were traveling crashed and burned.

The Boston campaign began in January. There he was ridiculed, parodied, and mocked more than usual by the press, but in the end the Gospel prevailed. Mr. Sankey ranked this campaign
as successful as the one in Edinburgh in 1873, but one of the most significant results of their time in Boston turned out to be the new vision God gave Mr. Moody.

During the campaign, he stayed in the home of Henry Durant, who had founded a college for girls. Before his death, Mr. Moody's brother Sam had shared with him a vision he had for a girls' school at Northfield, an academy where those who could not afford expensive boarding schools could come for Christian training. During those months with Mr. Durant, Sam's dream became D. L. Moody's vision.

For many months it seemed the vision would never become a reality. The fall of 1878 brought the death of the vision. Mr. Moody continued to feel the need to take time for study and to immerse himself in the Scriptures in a way his recent campaign schedule had not allowed him to do.

Mr. Sankey, however, was eager for another tour of England. He longed for the excitement of being in the limelight and associating with high society. Because Mr. Moody would not go, he decided to strike out on his own.

Mr. Sankey embarked on a singing tour. Though nothing was said publicly, this was the end of the Moody-Sankey team for a time. It also meant the end of Mr. Moody's school project, for without money from the trust he would not be able to finance it.

Mr. Moody began the Baltimore campaign without Mr. Sankey. It was a very different sort of campaign. Instead of using a large, centrally located hall, Mr. Moody preached mostly in churches, working through the city systematically, district by district.

This campaign was unique, too, in that Mr. Moody forced himself to spend a full six hours every day in study and meditation. Such consistent self-discipline was significant, considering his non-studious nature and the fact that he preached nine or ten sermons a week for seven months.

Mr. Sankey's singing tour was unsuccessful, and he wrote saying that if Mr. Moody would take him back, he could use the hymnbook royalties for whatever purpose he chose. Though the royalties had nothing to do with their parting in the first place, the famous pair was reunited and the future of the Northfield Seminary for girls was assured.

Later the Lord provided the funds for land and buildings for a boys' school just across the river. The school was called Mount Hermon.

By the fall of 1881, both boarding schools were established and well-staffed, and Mr. Moody felt he could now respond to the many invitations he had received to return to Great Britain. The Moodys and the Sankeys set sail from New York in September.

Both schools began in farmhouses on the property. Other buildings were erected as funds became available.

8 THE STRAIT WAY RESULTS IN RIDICULE BY THE WORLD.

Mr. Moody had always been reluctant to accept any of the hundreds of invitations he received to speak on college campuses because of his own lack of education. Often ridiculed in the press for his poor grammar and homespun manner of speaking, he did not relish exposing himself to the cruel sarcasm of intellectuals.

However, back in 1876 during the Philadelphia campaign, he had agreed to spend one day at Princeton. The response to his message surprised him. He said later: "I have not seen anything in America that pleased me like what I have seen in Princeton. They have got a Holy Ghost revival here."

Nevertheless, he continued to have doubts about his effectiveness with students. So it was with a great deal of hesitancy that he accepted an invitation to hold a week of meetings at Trinity College, Cambridge, in November of 1882.

Mr. Moody was not the only one who hesitated. The head of the new theological college in Cambridge, Mr. Handley Moule, though he greatly
admired the evangelist, was afraid that the sophisticated, arrogant university men would refuse to grant him a hearing.

Such fears were not unfounded. The majority of the 3,500 undergraduates then enrolled were from wealthy homes where religion was regarded as irrelevant. A further problem was that the opening meeting of the campaign was held on the eve of Guy Fawkes Day, which is celebrated with pranks and fireworks.

Even though his second campaign in Britain had been a phenomenal success up to that point, Mr. Moody was reluctant to go to Cambridge to speak to the students.

A boisterous crowd of 1,700 students in caps and gowns gathered for the first service. Rude jeers and catcalls interrupted Mr. Sankey’s solos and had him almost in tears by the time Mr. Moody rose to preach.

He spoke on Daniel, and his monosyllabic pronunciation of the name—“Dan’l”—provoked more laughter and jokes. The heckling and mocking continued throughout the sermon, but Mr. Moody remained calm and did not express impatience with the rowdies. By the end, most of them had quieted down and seemed somewhat ashamed of their misbehavior. Some even stayed for the prayer meeting afterward.

The next morning one of the students arrived at Mr. Moody’s hotel room bringing a letter of apology signed by a number of the troublemakers. Mr. Moody talked at length with the young man and persuaded him to promise to come to the meeting that night.

 Barely a hundred showed up for the service, and most of those were in the choir. Even so, five young men came to Christ. The services Mr. Moody was holding in town for the general public were much better attended. At the close of one of them, he asked the mothers to pray for the hard-hearted collegians. It was a powerful prayer meeting and unique in Mr. Moody’s experience.

That night the gymnasium was filled with students, and many people could sense a difference in the evangelist’s preaching. At the close, he issued the first invitation of the week. He asked any who wanted to accept Christ to go up to the gallery. The stairway was in the center of the hall in full view of the audience, so anyone who dared to respond would risk the sure ridicule of fellow students.

Even after the third appeal not a man had moved from his seat. Finally, one young man got up. Trying to hide his face with the sleeve of his gown, he clattered up the stairs two steps at a time. Another soon followed, then another. The choir sang again. By the time Mr. Moody and Mr. Sankey went up to the gallery, fifty-two students were waiting. Among them was the young man who had earlier brought the apology letter to the hotel.

On the final night, over 2,000 students crowded into the largest hall in town, a great contrast to the previous Sunday evening. This time the sermon was preached without the slightest interruption or disturbance.

At the end, Mr. Moody asked all those who had received Christ that week to stand. As Mr. Moody looked out across the crowd and saw at least two hundred young men rise, he murmured, “My God, this is enough to live for.”

The week at Cambridge not only resulted in the changed lives of many individuals; it also gave rise to the Student Christian Movement. Even though Mr. Moody had said little, if anything, about foreign missions during the campaign, within weeks several of the young men who had been stirred by his messages were committing themselves to become missionaries in other countries.
One by one a group of young men who had been either workers or converts in Mr. Moody’s campaign volunteered to go to China. They became known as the “Cambridge Seven.” All famous athletes and sons of wealthy families, their decision to go as missionaries surprised the entire nation. Students on campuses all across England and Scotland were challenged by their example to consider Christian service overseas.

Back in America, Mr. Moody was persuaded to speak on several campuses, but only after he was convinced that the students themselves wanted to hear him. Thousands of collegiate signatures were collected on petitions at Dartmouth, Princeton, Yale, and Harvard. During 1885 Mr. Moody preached at all those universities except Harvard.

Then in 1886 Mr. Moody agreed to host a month-long summer conference for college students at Northfield. Over 250 delegates came from campuses all over the United States and Canada. Several prominent lecturers had been invited to address the students, but Mr. Moody was the one they wanted to hear most. His transparent spirit, rugged honesty, and cheerful practicality had a greater impact on these young men than scholarly orations.

One of the delegates had been praying for three years that the Lord would raise up a thousand missionary volunteers from American colleges and universities. As opportunities arose, he quietly confronted his fellow delegates, urging them to become missionaries. At his appeal, one of the speakers gave a missionary message.

The college conferences at Northfield drew students from many different campuses.

Then one night during the third week of the conference, nine foreign students and an American Indian shared the needs of their various countries and peoples. The Holy Spirit began to work in a mighty way, and before the conference ended, a hundred men had signed a declaration of their willingness to serve overseas.

Thus began the Student Volunteer Movement with its watchword of “the evangelization of the world in this generation.” The next year a newspaper reported that the missionary spirit was “rampant” among the students. Over four hundred students came to Northfield in the summer of 1887, and after that the student conference became an annual event.

Through the annual Northfield student conferences, D. L. Moody was able to have an impact on an entire generation of college students.

Mr. Moody never attempted to serve as the leader of the Student Volunteers. He felt that his part was just to assist the organization as it began. Yet, by simply being willing to endure scorn and ridicule, an ordinary, uneducated former shoe salesman had a tremendous impact on a whole generation of university students.

9 THE STRAIT WAY ENJOIN US TO HAVE FORGIVING SPIRITS.

Even before the great fire, Mr. Moody had begun thinking about founding a Bible institute. He envisioned a school that was neither college nor seminary but a sort of spiritual boot camp to give lay volunteers two years of Bible training and other practical skills before sending them out to do mission work in the inner city of Chicago.

By 1873 Miss Emma Dryer, formerly the head of the faculty at the Illinois State Normal School, had come to Chicago to begin a ministry among needy women and girls. She associated herself with the Chicago Avenue Church and held her Bible classes and sewing instruction in its building. She and Mr. Moody often talked about the new institute he was planning and the key part she would play in operating it.

However, as the years passed and the evangelist became involved in campaigns in Britain and elsewhere, nothing was done toward founding such a school. Mr. Moody mentioned the institute idea a couple of times in public, but took no action. Miss Dryer tried to put pressure on him whenever
he came to Chicago. In the meantime, she began expanding her Bible classes at the church to include men.

In 1883 Miss Dryer and several others began praying weekly that Mr. Moody would come and establish the school. Within a couple of years Miss Dryer had hired a teacher and had about fifty men and women attending free evening classes. Mr. Moody agreed that if others would raise the funds, he would help establish the institute.

Then during his Chicago campaign of 1887, Mr. Moody brought together several of the wealthy supporters of his work and formed the Chicago Evangelization Society. The new organization’s purpose was to build and administer a Bible institute.

One evening when Mr. Moody was scheduled to preach at the Chicago Avenue Church, a young assistant found him outside at the northwest corner of the building. He said to the young man, “Do you see that lot over there? Let us pray to the Lord to give it to us for a school.”

They did, and the property eventually became the heart of the campus of Moody Bible Institute. There were, however, more delays before any real progress was made.

Around this time, C.T. Studd, a famous English cricket player and one of the “Cambridge Seven,” wrote to Mr. Moody from China, where he was now serving as a missionary. He sent a check for $25,000, one-fourth of his inheritance, to be used for mission work. Mr. Moody replied that he would use it for training missionaries and applied it to the school fund. Other large contributions came in from Cyrus McCormick, Jr., John Farwell, and others.

Miss Dryer became very frustrated with Mr. Moody’s methods, and their opposing ideas polarized the committee. These disagreements caused Mr. Moody to resign as president of the Society. Appeals from his wife and another member of the committee convinced him that such a bitter response would, in effect, dissolve the Society.

Purposing at that point to put the goals of the group ahead of his personal feelings, he promptly withdrew his resignation, encouraging the committee to get on with the construction of a building “for the sake of the Master.”

Still an entire year passed without the site’s even being purchased. Mr. Moody had been away most of the time in campaigns.

In the fall of 1888, he left for India but only reached California. Some pastors there reminded him that he had promised to hold meetings along the West Coast. He sent an associate to India in his place and spent the winter preaching in Portland, San Francisco, and other major cities.

Back in Chicago in April, Mr. Moody devoted all his energy to making the Bible institute a reality. In May, Miss Dryer decided to resign from the committee and carry on her work separately.

Mr. Moody raised more money and bought three houses adjacent to the church to be adapted for dormitories for the women students. The Lord answered his prayer for property and provided the exact lot he desired. Shortly afterward, construction began on a building to house two hundred men.

By mid-May of 1889, Mr. Moody was confident that the Institute would be able to open its doors that fall.

The men’s dormitory was finished the following year, and 248 enrolled in the Bible Institute.

R.A. Torrey, the man whom Mr. Moody selected to direct the new school, was uniquely qualified for the task of training lay volunteers. Following his graduation from college and seminary, he had directed a city mission in Minneapolis and had thus experienced the poverty of life in the slums.

Mr. Moody was elated the following spring when the Institute sent out its first graduates: thirty became foreign missionaries, over fifty entered...
full-time evangelistic work, and another thirty went into the pastorate.

In spite of this evidence of success, he tended to underestimate the impact the school was having. He wrote that same year, “My school work will not tell much until the century closes, but when I am gone I shall leave some grand men and women behind.”

By the time Mr. Moody died ten years later, the Institute had enrolled a cumulative total of over three thousand, and a full one-third of them had gone on to serve in some type of full-time Christian work.

Superintendent R. A. Torrey lectured to full classrooms in those early years of the Bible Institute in Chicago. (It was not actually called Moody Bible Institute until after Mr. Moody died in 1899.)

10 THE STRAIT WAY DEMANDS THAT WE EVALUATE OUR PRIORITIES.

In the fall of 1891, Mr. Moody again set out for India, this time with his family and the Sankeys accompanying him. They arrived in London in November, and Mr. Moody allowed doctors and British friends to talk him out of going on to India. They feared the tropical climate might cause him to have a stroke.

The evangelists decided to tour Scotland instead. Just that summer Mr. Moody had received an invitation to Scotland in the form of a scroll 150 feet long, containing about two thousand signatures from fifty different towns and cities.

The response of the Scottish was gratifying. Mr. Moody was especially encouraged to find that many of the pastors were men who had been converted during his earlier campaigns.

After a brief trip to Rome and the Holy Land in April, Mr. Moody continued campaigns in Britain throughout the summer. His family returned home, but he stayed on to hold a short campaign in Ireland and ten days of meetings at Charles Spurgeon’s church, the Metropolitan Tabernacle.

Mr. Moody sailed for America in November. The large transatlantic liner pitched and yawed in the heavy seas. Below deck Mr. Moody groaned as he rolled over in his bunk. His seasickness was worse than usual this time because of bad weather. Unable to sleep, he recalled the medical exam he had had just a few days before leaving London.

The doctor, an eminent heart specialist, had told him he had a slight heart problem. Knowing he was an evangelist, the doctor asked, “How often do you preach?”

“Oh,” Mr. Moody said, “I usually preach three times a day. On Sunday, four, or even five times.”

“How many days a week?” the doctor asked.

“Six, but during the last winter, seven.”

“You’re a fool, sir, you’re a fool! You’re killing yourself.” The doctor warned him to cut back and take things much easier.
At the time, the fifty-six-year-old preacher had brushed it aside with a joking remark, but tossing and turning on his bunk across the stormy North Atlantic, he reached a different conclusion. He reluctantly decided that he would cancel the plans he had been making for a huge five-month evangelistic campaign simultaneous with the 1893 World’s Fair in Chicago.

Suddenly a tremendous crash interrupted his thoughts. The entire ship seemed to shudder. From the shouting outside the cabin, the startled Mr. Moody learned that the main propeller shaft had broken.

There were also cries that the ship was sinking. Assuming that surely the situation was not as bad as that, he quickly dressed and went up on deck only to encounter several passengers screaming that their cabins were flooding.

The crew did a good job of keeping the passengers from panicking, even the many immigrants who were crowded into the steerage. All passengers were assembled in one of the main dining rooms. The ship was rolling from side to side in the rough seas. Several stern compartments had filled with water and could not be pumped out.

Adrift on the open sea in the days before radio, their only hope was that some passing ship would see their distress flares soon. Darkness fell without another vessel’s being sighted. Through the night they drifted farther away from the well-traveled sea lanes.

The evangelist later described it as “an awful night, the darkest in all our lives—several hundred men, women, and children waiting for the doom that seemed to be settling upon us. . . . No one dared to sleep.”

During those dark hours a storm raged within Mr. Moody, too. It seemed as though the Lord were clearly saying to him, “Were you ready to let up, to go slow? Then I will take you to Myself. You are no use to Me unless you are out and out.” The thought of never having the privilege of preaching again led him to make a vow that night.

He promised that if by God’s grace he made it home, he would pour all the energy God gave him into the World’s Fair campaign. He purposed not to allow a weak heart to keep him from continuing to give an all-out effort to preaching the Gospel, even if it shortened his life by five or ten years.

The next day there was still no sign of another ship. That evening, with the captain’s permission, Mr. Moody led a prayer service in the dining room of the drifting ship. Almost every passenger was present as Mr. Moody, with one arm wrapped around a pillar to keep his balance on the unsteady deck, read from Psalm 91. Then he prayed, pouring out his heart to God and asking Him to still the storm and bring them to safety.

Many on board felt a new sense of peace and hope. Mr. Moody himself went to his cabin and fell sound asleep. About three the next morning he was awakened with the news that another vessel was approaching. Shortly after dawn the wind and waves calmed enough for the rescue ship to attach a tow cable to the disabled liner. It took six days for the two ships to reach Liverpool, but God miraculously provided calm seas all the way.

The World’s Fair campaign (May through October of 1893) was unlike any of Mr. Moody’s others. It was organized not by a local committee but by Mr. Moody himself, with the support of the Bible Institute. The evangelist worked incessantly through the heat of the Chicago summer with fervent zeal.

God had given Mr. Moody a vision for reaching not only the thousands of Fair visitors but the entire city as well. During the five months of the campaign, nearly two million people attended the evangelistic meetings held all over Chicago. They came from every state and many foreign countries.

The World’s Fair was held in Chicago in 1893.

Using the Bible Institute as his headquarters and its two hundred students and staff as workers, Mr. Moody scheduled hundreds of meetings in churches, theaters, and halls in virtually every neighborhood. He was often the speaker, but he also invited many other preachers. Among them were A. J. Gordon from Boston, Mr. Spurgeon’s son from England, and several others from overseas to reach the non-English-speaking immigrant groups.
Response to the campaign was somewhat slow at first. Some urged Mr. Moody to speak out against the officials of the Fair for opening on Sundays, but he only encouraged a stronger presentation of the Gospel. By August Mr. Moody’s meetings were drawing between 40,000 and 50,000 people each Lord’s Day, but the Fair remained closed due to low attendance.

At the close of the campaign, Mr. Moody could report with great joy that “thousands have apparently been genuinely converted to Christ...”

That year (1893) marked the beginning of six years of ceaseless activity as Mr. Moody threw himself wholeheartedly into the different facets of his work, any one of which would have been enough to keep an ordinary person busy. Not content to stand still, he was always looking for ways to improve and expand the Northfield Schools and the Bible Institute.

He had the idea, for example, that men from the Institute could load a wagon with inexpensive Christian books and go from town to town in the West, selling books in the daytime and holding evangelistic meetings in the evenings. This Colportage Association eventually became Moody Press, a major publisher of religious books.

He traveled during these years, too, all over North America. Often he stayed only two or three nights in one place, sometimes a few weeks; and there was scarcely a major town which he did not visit.

In November of 1899, Mr. Moody went to Kansas City to hold a week of meetings. Late one night in his hotel when he could not sleep, he wrote a letter to a friend.

Reminiscing about co-workers who had already gone to be with the Lord, he wrote, “I get homesick for them sometimes, and yet I would not be off until the work that the Lord has given me to do is finished. The work is sweeter now than ever, and I think I have some streams started that will flow on forever. What a joy to be in the harvest field and have a hand in God’s work!”

In an August 1899 meeting in New York, D. L. Moody made a profound prediction. He told his audience: “Some day you will read in the papers that D. L. Moody is dead. Don’t you believe a word of it! At that moment I shall be more alive than I am now.”

The truth of those words was realized when he died four months later on December 22. He is even now alive with his Savior and rejoicing in the more abundant entrance into Heaven which he has received because of all those whom he won to Christ through forty years of Christian service.

Second, he is alive in the ministries which bear his name and continue to carry on his work nearly one hundred years after his death. Very few ministries are so blessed of the Lord as to be true to God’s Word so many years after the founder has gone on to be with the Lord.

The spiritual fruit of his ministries continues to bring eternal rewards to D. L. Moody and to those who faithfully labored with him to reach a city, a nation, and a world. Perhaps the greatest legacy which D. L. Moody left to us is being a living demonstration of the phrase that challenged his life:

The world has yet to see what God can do through one man wholly consecrated to Him.

PROJECT

Chicago in 1850 was a diverse city with many ethnic groups and great contrasts between the very wealthy and the very poor. Yet, one man with a heart and life filled with truth and love dedicated his life to reaching that city for the Lord.

List the activities which D. L. Moody did to reach Chicago in 1850 that you could do today. Discuss how you would go about doing each one:
• Gathering neighborhood children for a Bible class
• Looking for practical needs in the neighborhood and then meeting those needs
• Distributing Gospel tracts and booklets

Date completed _____________________ Evaluation _____________________
HOW DOES THE STRAIT OF GIBRALTAR ILLUSTRATE THE NATURE OF A STRAIT GATE?

The Strait of Gibraltar is a narrow passage of water that is bound on both sides by large limestone rocks. It is named after the Rock of Gibraltar, which overlooks it from the north. The word strait comes from the Latin word strictus, which is also the origin of restricted. Like a straitjacket, the two rocks restrict the flow of water through the strait.

Rising 1,398 feet above sea level, the Rock of Gibraltar stands like a giant guardian looking out across a narrow inlet of water. Just fifteen miles to the south, another pillar of limestone, 2,782-foot Jebel Musa, rises up from the ocean floor to funnel millions of tons of water per second from the Atlantic Ocean into the Mediterranean Sea.

Tens of thousands of merchant ships pass through this narrow strait of turbulent water each year, making it one of the most important pieces of real estate in the entire world. For centuries, nation after nation has sought to gain control of the pillar, because it has been said that whoever controls the pillar controls the strait, whoever controls the strait controls the Mediterranean Sea, and, perhaps most importantly, whoever controls the Mediterranean Sea controls the future of the world.

The southern pillar, located in Morocco, has never been coveted. Yet, the northern rock, the Rock of Gibraltar, has been besieged many times, served as a command post for Allied troops during the liberation of Europe in World War II, and claimed more than 100,000 lives in its defense.

Even Gibraltar’s name alludes to its tempestuous history. In A.D. 711 a Moslem army under the leadership of Tariq ibn-Ziyad seized the Rock. Recognizing the strategic importance of his prize, he built a fortified castle there and named it Jabal Tariq, meaning “Tariq’s mountain.” Centuries later the name was slurred into the English version “Gibraltar.”

1 THE STRAIT OF GIBRALTAR GIVES LIFE TO THE MEDITERRANEAN SEA.

Unlike the Dead Sea, which is stagnant and devoid of life, the Mediterranean flourishes with an abundance of fish and vegetation which sustains those who live along its shores. However, if it were not for the Strait of Gibraltar, the Mediterranean would certainly experience the same fate as the Dead Sea.

Because the Mediterranean rests under a canopy of approximately 969,100 square miles of bright warm sky, its waters evaporate very quickly. In fact, estimates of the evaporation rate range between 100,000 tons and 2,000,000 tons of water per second. This means that as water moves across the surface of the Mediterranean from west
to east, it evaporates so quickly that the surface actually drops by as much as several feet.

Unfortunately, there is not enough rain to replenish this lost water. Even the flow of four major rivers—the Ebro from Spain, the Nile from Egypt, the Po from Italy, and the Rhône from France—is not enough to offset the effects of the sun. All this evaporation causes the water to become saltier and heavier as it moves eastward.

On the average, the Mediterranean Sea has a salt content of 3.9 percent, making it the third saltiest sea in the world. Only the Red Sea (4.0 percent) and the Dead Sea (24 percent) are saltier. If the sea continued to grow saltier without being replenished, it would quickly become a desert of salt, choked in its own minerals.

Fortunately, as the salt concentration mounts, the water begins to sink. This sets up a current within the Mediterranean which plunges downward at the eastern end of the sea, doubles back under itself, and eventually flows out into the Atlantic Ocean through the Strait of Gibraltar.

The falling water at the east end of the Mediterranean acts like a pump to draw in less salty water from the Atlantic. This water, which has a salt content of only 3.5 percent, helps to dilute the salt that remains after evaporation.

In effect, the current works like a washing machine to scour the depths of the Mediterranean, removing the excess salt and carrying life-giving oxygen and carbon dioxide to fish and plants.

An underwater ridge between Sicily and Tunisia divides the Mediterranean into two basins. The ridge acts like an agitator to stir up the water as it passes over the ridge and tumbles into the next basin. This circulation replenishes the bottom layers of the Mediterranean approximately every three years.

In contrast to the flourishing Mediterranean, one of the Mediterranean’s close neighbors, the Black Sea, is dying. Heavy rains keep the surface water of the Black Sea light. Instead of concentrating salt at its surface, the Black Sea actually dilutes the salt with precipitation.

Because the surface waters remain less dense, they float and prevent the bottom waters from rising. The waters of the Black Sea gradually lose their oxygen content and accumulate waste material, choking out nearly all life. Because there is no mechanism for vertical circulation, the sea stagnates.

Evaporation causes the water level in the Mediterranean to drop so quickly that water rushes in through the Strait of Gibraltar at a rate of between 40 million and 200 million cubic feet per second. In fact, the current created by this influx of water is so powerful that sailing vessels find it almost impossible to sail westward through the strait. Only when the wind is just right can a ship make headway against the current.

A captain’s ship log from 1855 typifies the problem.

“Ship’s log 1855. Weather fine; made 1 1/4 pt. leeway. At noon, stood in to Alomira Bay, and anchored off the village of Roguetas. Found a great number of vessels waiting for a chance to get to the westward and learned from them that at least a thousand sail are weatherbound between this and Gibraltar. Some of them have been so for six weeks, and have even got so far
as Malaga, only to be swept back by the current. Indeed, no vessel has been able to get out into the Atlantic for three months past.

A sailing vessel may have to overcome a current of almost five knots in order to sail out of the strait. Because the current varies, it is difficult to predict and can be treacherous unless the captain is well acquainted with its flow.

Hidden some four hundred feet beneath the surface waters of the strait is another current, made up of cooler, more dense water. This current carries concentrated salt and waste material out of the Mediterranean Sea.

During World War II, German and Italian submarines tried to use these currents to drift past the British blockades at Gibraltar. Turning off their engines to avoid detection, they maintained a depth of less than three hundred feet to float eastward. By diving deeper, they floated westward into the Atlantic.

The outgoing current flowing through the Strait of Gibraltar travels at a rate of about one and a half knots. Because it flows in the opposite direction of the surface current, the relative velocity of the two currents approaches seven knots at the interface. Two opposing currents such as these can generate internal waves more than sixty feet high.

Occasionally the waves grow so large that they actually break as if they were crashing onto a beach. This destructive force creates treacherous undertows and eddies. While these underwater waves move ponderously slowly, they carry immense amounts of energy that cannot be ignored.

The shear zone between the two currents can be so powerful that it has been known to wreck oceanographic instruments sent down to measure it, apparently pounding them against stones on the bottom. For example, cables laid across the Strait of Gibraltar have been ground to bits, while submarines have been dashed on the rocks and turned end over end.

3 THE STRAIT OF GIBRALTAR PROJECTS AN INFLUENCE FAR BEYOND ITS SHORES.

In many respects, the world's oceans are much like the earth's atmosphere. There are storms, jet streams, cold and warm fronts, hurricanes, high- and low-pressure systems, and even smog under water. Just as these weather patterns stir up the atmosphere, similar ocean patterns influence every inch of the world's oceans.

An ocean eddy is a high-pressure system roughly analogous to the high-pressure systems shown on a weather map.

One particular underwater weather pattern radiates regularly from the Strait of Gibraltar. Observers call this pattern a Meddy. A Meddy is a double-convex-shaped body of water which floats at a depth of about 3,500 feet beneath the surface of the Atlantic. Some are only a few miles in
diameter, but others may range upwards of two hundred miles across.

Meddies are made up of salty water from the Mediterranean. While they rotate slowly like a giant hurricane, they do not mix with the surrounding water. Instead they maintain their own identity for months and sometimes years. As they move through the waters of the mid-Atlantic, they gradually spread their rich salt content from shore to shore.

One particular Meddy was tracked for two years between October 1984 and October 1986. It was sixty miles in diameter and one-half mile thick, contained 2.5 billion tons more salt than an equal volume of sea water, and was 3.5 degrees warmer than its surroundings.

Oceanographers used thirty-foot-long pieces of aluminum tubing to keep track of the Meddy. As the Meddy rotated once every six days, the slowly turning tubes gave off a low pipe-organ-like tone which was received by stations on the surface.

During the two years that the Meddy retained its own identity, it traveled more than six hundred miles southward along the coast of Africa. Other Meddies are known to have traveled more than two thousand miles along a tongue of Mediterranean water that reaches halfway across the Atlantic. As they reach outward from the Strait of Gibraltar, these Meddies stir up the oceans and spread their concentrated salt content along their paths.

Some oceanographers believe that the Strait of Gibraltar acts like a gun barrel shooting out blobs of liquid every few weeks. As the blobs begin to rotate, they take on a circular shape and gradually sink until they reach a point of neutral density. At that point they begin their underwater journeys, spreading salt across the oceans.

Other oceanographers believe that the Meddies originate from a massive pool of water which collects near the mouth of the strait. When the pool becomes too large to hold itself together, globs break off. The slow spinning action of the pool tends to send the Meddies off in different directions depending on where they break off. However, just as hurricanes and tornadoes tend to travel along familiar routes, Meddies follow predictable courses.

4 THE STRAIT OF GIBRALTAR PRODUCES BALANCE AND STABILITY.

The Mediterranean Sea is virtually tideless. In fact, the difference between high and low tides is rarely more than six inches.

Tides in other parts of the world often exceed thirty feet. Even just a few miles up the coast from the Strait of Gibraltar, tides rise and fall significantly.

The lack of tides in the Mediterranean is a result of its shape, its depth, its unique currents, and the Strait of Gibraltar. The strait acts as a buffer to stop the tidal flow of the Atlantic from inundating the Mediterranean Sea. Hidden only 150 feet beneath the surface near the mouth of the strait is a sill that works much like a dike to protect the Mediterranean from the extremes of high and low tides.

As tides rise, the excess water flows out through the strait. As tides fall, water flows back in. This movement maintains a relatively constant level within the confines of the Mediterranean Sea. If the sill were any smaller or the strait were any larger, tides might engulf many of the coastal cities. Venice, for example, would lose the use of its canals. No longer could gondolas carry passengers from shop to shop. The rise and fall of tides would make it impossible to maintain a constant water level throughout the city.

On the other hand, if the sill were any larger, the strait were any narrower, the flow of currents in and out of the Mediterranean would be blocked. Without the cleansing action of these currents, the Mediterranean would become so salty that it would die like the Dead Sea.
The Mediterranean is virtually tideless. There is a six-inch spring tide range at Naples. The lack of tides and excellent harbors made cities around the Mediterranean centers of trade for the whole world.

The Rock of Gibraltar gives two different appearances to those who view it.

From early June through late September, an easterly wind called the levanter blows across the Mediterranean. During these summer months it may blow for 150 days without variation. As it travels across the Mediterranean, it warms up and absorbs so much evaporating moisture from the sea that the wind feels almost tropical.

The term levanter comes from the French word for “rising.” It means literally “a wind that comes from the rising of the sun.”

When the wind strikes the sheer cliff of Gibraltar, it rises so fast that its moisture condenses almost instantaneously. This forms a white cloud much like the vapor trail of a jet airplane. Even though the east face of Gibraltar remains bright and glorious, the summit and west side of the rock become shrouded in fog. In fact, the cloud over Gibraltar may stretch for up to five miles out to sea, looking like a long stocking cap blowing in the wind.

At times the cloud becomes so dense over the western side of the rock that it may obscure the light of the sun for days on end. On hot August days, the humidity and heat approach that of a Turkish bath.

The Rock of Gibraltar was sought only by those who saw its value.

The Phoenicians were some of the first people recorded to pass regularly through the Strait of Gibraltar (as early as 400 B.C.) They were followed by the Carthaginians, the Romans, and the Vandals from Germany. However, not until the eighth century did anyone recognize the strategic importance of the strait. The Moors learned that it was not only the key to Spain, but also the key to the entire Mediterranean.

The Romans carried grain across the Mediterranean in ships like this as early as A.D. 200. However, the Romans took no interest in the Strait of Gibraltar because they did not see its value.

In 1309, the Spaniards drove the Moors off Gibraltar, only to lose it again in 1333 and retake it in 1462. To make the Rock more attractive, the King of Spain offered it as a haven for thieves and murderers, by granting impunity to any “evildoer” who would take up residence on the Rock.

Unfortunately, the residents of Gibraltar failed to protect their gift, and by the end of the 1400s, the Rock’s defenses had crumbled into disarray. In 1540 the Turks invaded and completely overran the neglected fortress. However, the Turks also failed to recognize the value of the Rock and gave it back to Spain after just two years.

For the next 150 years, the Rock of Gibraltar enjoyed peace, mostly because no one saw the
military and economic advantages it would provide. Then in 1700, when King Charles II of Spain died having no children, the War of Spanish Succession broke out to determine who would succeed him. France and Spain fought against the territories of Britain and Austria. On July 21, 1704, a combined British and Austrian fleet led by British Admiral Rooke attacked Gibraltar.

At that time the Spanish garrison had fewer than eighty properly trained men and not a single working cannon. The fleet took just three days to bring the Spaniards to a surrender. In 1713 at the close of the war, the Treaty of Utrecht gave Britain a permanent claim to the Rock.

7 THE ROCK OF GIBRALTAR WAS SUCCESSFULLY DEFENDED BY A MAN OF GREAT CHARACTER.

Because the British recognized Gibraltar’s importance as a port during wartime, they vowed to pay the price to protect it. Yet, even though commerce flourished, the Rock was difficult to maintain. Every time Britain’s vigilance lapsed, the Rock became the home of smugglers, thieves, and swindlers.

Within just fifty years, England’s passion to defend the Rock grew lukewarm and then cold. The government even tried to trade it away on several occasions. In the 1770s as England became increasingly preoccupied with its American Colonies, Spain, France, and the Netherlands joined forces to recapture Gibraltar’s strategic position.

It was under these conditions in 1777 that England appointed General George Eliott as Governor of Gibraltar. General Eliott was a man of great discipline and character. He was a non-drinker and accustomed to Spartan living. When he landed on Gibraltar, he found the defenses crumbling, supplies and morale very low, and corruption and incompetence everywhere.

The General immediately requested more resources, but none came. However, through his own diligence he made do with what God had provided. He cultivated every inch of farmland on the Rock and collected drinking water in Gibraltar’s natural cisterns. He repaired, restored, and rebuilt the fortifications and drilled his men in military tactics. By his own example he encouraged his six thousand troops to strive for excellence.

It was now Spain and France’s turn to attack Gibraltar. However, before they fired a single shot, General Eliott and his men had every one of Gibraltar’s 663 cannons ready for action.

For three years and seven months, the troops endured an assault of unprecedented magnitude.

In the final days of the siege, General Eliott’s attackers sent 40,000 men, 70 ships, and 250,000 rounds of cannon shells against him and his troops. But General Eliott stood firm on the Rock. He responded with 8,500 surprise rounds of preheated “hot-shot” which exploded in midair. General Eliott’s men had discovered this new technique instead of sleeping during lulls in the battle. As the molten lead rained down on the enemy’s armada, the ships caught fire and sank.

When the smoke finally cleared in February of 1783, General Eliott had retained possession of the Rock and control of the strait.

PROJECT

Relate the seven points of this Resource to the narrow gate and strait way which God has provided through Christ.

Date completed __________ Evaluation __________
There are many aspects to the study of hydraulics. Firemen must know how water flows through nozzles, and automobile manufacturers must know how to control hydraulic presses that give form, purpose, and strength to sheets of metal.

Hydraulics is the study of how liquids move through passages such as pipes or hoses. The word *hydraulics* comes from the Greek word ὑδραύλις (hoo-DROW-liss), which refers to a water organ—an ancient musical instrument. The first part, ὑδρ (HOO-dore), means “water,” and the second part, ὄμολος (ow-LOSS), means “a flute or pipe.”

Not surprisingly, *hydraulics* also refers to musical instruments such as the oboe, which operates on the same hydraulic principle that lifts an airplane wing, causes snoring, lifts a car into the air at a service station, and blows the roof off a house during a tornado. All these events are effects of a fluid’s passing through a constricted passage.

Learn how the laws of hydraulics illustrate the blessings that come to those who follow the strait way of suffering and tribulation.

A liquid conforms to the shape of its container.

One of the first laws of hydraulics is that a liquid conforms to the shape of the container into which it is poured. Liquids have no shape of their own, because their intermolecular bonds are weak and the molecules are free to move over, around, and on top of one another.

As a solid melts, the bonds between molecules break, allowing the liquid to flow freely. Liquids conform to the shape of their containers because the bonds holding the liquid together are much weaker than those of the solid.

A solid, on the other hand, has strong intermolecular bonds. As a liquid fills a container, it flows outward until it reaches the restrictive limits of the solid that surrounds it. At that point it yields to the stronger bonds of the solid and conforms its own surface to the shape of the container.

Although a liquid does not have a shape of its own, it does have a definite volume which does not change when it is poured from one container to another. While its shape changes, its volume does not.

Changing the shape of a liquid does not change its volume. Its substance remains constant even though its appearance changes.
Bernoulli’s principle also describes the flow of air over an airplane wing. Because air flows faster over the upper surface of a wing and slower over the lower surface, there is more pressure pushing up from the underside than there is pushing down from the upper side of the wing. This difference produces lift.

\[ \text{Lift} \]

\[ \text{Air pressure drops} \]

\[ \text{Wing} \]

\[ \text{Air pressure stays the same} \]

\[ \text{Direction of airflow} \]

\[ \text{Direction of flight} \]

Because air travels faster over the top of a wing, it produces less lateral pressure than air on the underside of a wing. The difference in the two pressures produces lift.

The relationship between motion and pressure also explains how a baseball curves. When a pitcher makes a ball spin, the speed of the air is greater on one side of the ball than on the other. Because the side with the greater velocity has the lesser pressure, the ball curves in a direction perpendicular to the axis of the spin.

As a pitcher releases a pitch, he imparts a spin to the ball. Air passing over the side that is spinning in the direction of the throw has more velocity than air passing over the side that is spinning away from the throw. The difference in velocity produces a net force that causes the ball to curve.

The destructive force of a tornado also follows Bernoulli’s principle. Normally the air pressure outside a house is balanced by the air pressure inside. However, the winds of a tornado, traveling at speeds of more than 300 miles per hour, produce almost no lateral pressure. The stationary air trapped inside a house literally blows the roof off and the walls out because of the difference in pressure.

Blowing air between two sheets of paper demonstrates how Bernoulli’s principle works. Simply hold two sheets of paper about two inches apart, and blow a short puff of air between them from the top down. Notice that the sheets draw together and then return to their normal position. If you blow a steady blast of air between the sheets, they quiver.

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Snoring results as air flows through the narrow passages of a person’s sinuses. As the air speeds up, its lateral pressure diminishes and the soft tissues come together, blocking the flow of air. As the pressure returns to normal, they separate, and the passage widens again. This rhythmical opening and closing produces the snoring sound we make as we sleep.
How do the laws of hydraulics illustrate the strait way to life?

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Changing the shape of a liquid does not change its volume. Its substance remains constant even though its appearance changes.
A liquid resting within a container also exerts a pressure on the container at right angles to its surface, that is, outward. Most liquids cannot exert shear stresses that push in any other direction. This means that a liquid can expand a container to its fullest potential, but it cannot alter the container’s shape.

Raindrops or drops of water resting on waxed paper appear to have a characteristically round shape. This shape is actually the result of a combination of the attraction of the water molecules for each other and the forces of air pressure. Air acts like a container to limit and conform the drop to a spherical shape. Without air pressure to constrict and surround a drop, it would evaporate rapidly into a shapeless gas.

"But we all, with open face beholding as in a glass the glory of the Lord, are changed into the same image from glory to glory, even as by the Spirit of the Lord" (II Corinthians 3:18).

2 A liquid does not shrink under pressure.

Most liquids, especially water, are not compressible. In fact, the compressibility of water is less than 0.0005 inch for each additional atmosphere of pressure. Water is so incompressible that even at a depth of one mile, under a pressure of well over one ton per square inch, it shrinks less than one percent.

Engineers who design pumps and water systems for cities or manufacturing companies can rely on water’s unchanging volume. Their calculations for flow and pressure remain constant without shrinkage over a wide range of conditions.

However, engineers must be careful to design pumps and fittings to withstand tremendous pressures. Because water is so resolute, its containers often break before it will yield.

For example, the knocking sound of water pipes, called a “water hammer,” is the result of water’s incompressibility. When you turn on a faucet, a column of water begins to move through the pipe at speeds of up to forty feet per second. When you turn off the faucet, the column must stop suddenly even though the inertia of the water forces it to continue moving.

The result is much like a car running into a brick wall. The incompressible column of water keeps moving until it runs into something. The impact may produce pressures of several thousand pounds per square inch on the faucet.

To prevent the destructive effects of a “water hammer,” plumbers design compressible air chambers into the system. The air acts like a shock absorber to slow the moving water to a gentle stop. Without such cushions, pipes make tremendous noises and may rupture when a faucet is closed abruptly.

“... Be ye stedfast, unmoveable, always abounding in the work of the Lord, forasmuch as ye know that your labour is not in vain in the Lord” (I Corinthians 15:58).

3 A liquid that comes to rest deflects pressure to its container.

During the 1600s a French mathematician by the name of Blaise Pascal discovered that liquids at rest transmit pressure uniformly in every direction. For example, if you cork a full bottle of water so there is no air inside and then push on the cork, the additional pressure from the cork increases the liquid’s outward pressure against every square inch of the bottle by precisely that amount.
Pascal demonstrated that liquids at rest do not absorb pressure. Instead, they deflect it to the container in which they rest. Adding a ten-pound weight to a column of water adds ten pounds of pressure uniformly throughout the entire container.

This means that whether you put a cork into a quart bottle, a gallon jug, a fifty-gallon drum, or a thousand-gallon boiler and put the same amount of pressure on each cork, there is precisely the same increase in pressure throughout each of the containers. The size of the container or the amount of pressure makes no difference. Any additional pressure in any container is distributed equally over the inner surface of the container.

"Then they cried unto the Lord in their trouble, and he delivered them out of their distresses. And he led them forth by the right way, that they might go to a city of habitation" (Psalm 107:6-7).

4 A liquid moves through a narrow way without diminishing its flow.

In 1738 a Swiss mathematician by the name of Daniel Bernoulli discovered that a liquid’s overall amount of flow through a pipe remained constant regardless of the diameter of the pipe. He observed that as a liquid passed through a narrow section of pipe it moved faster. As it entered a wider section of pipe it slowed down.

Bernoulli suggested that mathematically the cross-sectional area of a pipe multiplied by the velocity of the liquid flowing through it was fixed. He wrote the formula as:

\[ A_1 \times v_1 = A_2 \times v_2 \]

\( A_1 \) and \( A_2 \) represent the respective areas of the pipe, and \( v_1 \) and \( v_2 \) are the respective velocities of the liquid.

As a liquid moves from a wide pipe to a narrow pipe, the area (diameter) decreases. To make up for the smaller area, the velocity of the liquid increases proportionately. When a liquid moves from a narrow passage into a wider one, the cross-sectional area increases. In order to maintain a constant flow, the liquid must slow down.

Decreasing the nozzle opening on a garden hose causes the water to flow faster and to spray farther. Removing the nozzle altogether allows a slow, broad stream to flow from the hose.

However, as the velocity of a fluid changes, the pressure perpendicular to the direction of its flow also changes. Mr. Bernoulli noticed that as the velocity of a liquid increased in a narrow pipe, the pressure on the walls of the pipe decreased. As the velocity decreased in a widening pipe, the lateral pressure increased once again.

At point 1 a greater pressure pushes down on the column. At point 2 a lesser pressure "lifts" up on the column. The difference in the heights of the columns equals the difference in pressure.
Bernoulli's principle also describes the flow of air over an airplane wing. Because air flows faster over the upper surface of a wing and slower over the lower surface, there is more pressure pushing up from the underside than there is pushing down from the upper side of the wing. This difference produces lift.

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“Wherefore seeing we also are compassed about with so great a cloud of witnesses, let us lay aside every weight, and the sin which doth so easily beset us, and let us run with patience the race that is set before us, Looking unto Jesus the author and finisher of our faith; who for the joy that was set before him endured the cross, despising the shame, and is set down at the right hand of the throne of God” (Hebrews 12:1-2).

5 A liquid’s power is a manifestation of the narrowness of its way.

A simple hydraulic press has two pistons, one small and one large. The intervening space is filled with a liquid called hydraulic oil. When a force is applied to the small piston, the pressure is transferred to the large piston through the liquid. The total force exerted by the large piston is directly proportional to the relative areas of the two pistons.

The brakes of a car are an example of a simple hydraulic press. Pressure applied to the brake pedal is transmitted through a liquid to the brake shoes. Because the piston which is attached to the brake pedal and the piston attached to the brake shoes are different sizes, a person’s foot pressure on the pedal is greatly multiplied by the time it reaches the brakes.

Two pounds resting in the “narrow way” balances sixty pounds resting in the “broad way.”

Today most cars have power brakes that use a hydraulic ram to multiply foot pressure. A hydraulic ram is a system which receives fluid under pressure from a continuous supply line and channels it into a single moveable piston. As fluid builds up behind the piston, the piston moves slowly forward with incredible power.

If the area of the supply line is one square inch and the area of the piston is thirty square inches, the force exerted by the ram is multiplied thirty times. Mathematically this relationship is expressed as $F = PA/A_1$, in which $F$ is the total force exerted by the piston, $P$ is the pressure per square inch of the fluid, $A$ is the area of the piston, and $A_1$ is the area of the supply.

An entire locomotive can be balanced by just one hundred pounds. If the narrow supply is only one square inch in diameter and the piston (plunger) is thirty-six inches in diameter (1,018 square inches), the total weight that the ram can lift is 101,800 pounds.

$$F = PA/A_1$$
$$F = 100 \text{ pounds (1,018 sq. in./1 sq. in.)}$$
$$F = 101,800 \text{ pounds}$$

Making the supply line narrower multiplies the ram’s power. Broadening its dimensions has the opposite effect. Every time the radius is doubled, the power of the ram is reduced by a factor of four.

“But as many as received him, to them gave he power to become the sons of God, even to them that believe on his name: Which were born, not of blood, nor of the will of the flesh, nor of the will of man, but of God” (John 1:12-13).

FIVE MAJOR CAUSES OF FAILURE IN A HYDRAULIC RAM

Engineers watch carefully for dirt, excessive heat, misapplication, misalignment, and faulty mountings that can seriously damage a hydraulic ram. Dirt particles often lodge between the piston and its housing, scoring the piston and damaging
its seal. In minor cases the dirt may simply reduce the ram’s power because of excess leakage. In other cases, if the scoring is deep enough, the piston may actually freeze to its housing.

Excessive heat can lead to deterioration of the packings around the piston, causing gasket leaks. Misapplications of cast iron parts used in high-impact situations may cause rams to shatter long before they should. Misalignment may also cause excessive wear on one side of the piston rod, resulting in small leaks. Major alignment problems may make a piston bend or even break under normal working conditions.

Finally, mountings that are not secure or strong enough to withstand the load produced by the ram may break under stress and not only damage the ram, but also injure operators and damage nearby equipment.

6 A liquid’s lifting power increases as its depth increases.

Two hundred years before the time of Christ, a Greek mathematician by the name of Archimedes observed that an object weighed less when it was weighed in a liquid than when it was outside the liquid. Somehow a liquid was able to lift an object with a buoyant force that countered its weight.

Archimedes found that an object lost an amount of weight exactly equal to the weight of the fluid it displaced. Others observed that the amount of pressure exerted by a liquid is determined by its depth. This concept can be illustrated by stacking a number of books on a table. Each book that is added to the stack adds more weight to the bottom book; yet, each book bears only the weight of the books above it. The top book, in fact, bears no weight at all, while the bottom book bears the weight of the entire stack.

Because a liquid exerts pressure on every part of an object’s surface and that pressure is always at right angles to the surface, the forces pushing down on the top of an object are less than the forces pushing up from the bottom of an object. This difference in forces produces a net lift on an object.

Because the pressure on the sides of an object are equal and opposite, they “cancel out.” However, the downward pressure ($P_2$) on the top of the block is much less than the upward pressure ($P_1$) on its bottom. The net force lifts the block upward because $F_1$ is greater than $F_2$.

If the total lift is less than the total weight of an object, the object sinks. However, if the lift is greater than the weight of the object, the object floats. In fact, it can be lifted right out of the liquid until its weight and the buoyant forces balance one another.

The net buoyant force on an object acts vertically through the center of gravity of the object and is equal to the weight of the fluid which the object displaces. The formula for net buoyant force is $F = \rho g V$, in which $\rho$ is the density of the displaced fluid, $V$ is the volume of the fluid, and $g$ is the acceleration of gravity.

Icebergs float because they are less dense than water. However, 90 percent of their mass remains underwater to keep them afloat.
“And beside this, giving all diligence, add to your faith virtue; and to virtue knowledge; And to knowledge temperance; and to temperance patience; and to patience godliness; And to godliness brotherly kindness; and to brotherly kindness charity” (II Peter 1:5–7).

HOW WAS A GOLDSMITH’S FRAUD DISCOVERED IN A BATHTUB?

The story is told that King Hiero of Syracuse (Italy) asked Archimedes to test whether the royal goldsmith had used pure gold to make the king’s new crown. The king suspected that his goldsmith had cheated him by replacing some of the gold with cheap silver.

Archimedes reasoned that silver, because it is less dense than gold, would occupy more volume and weigh less than pure gold. However, Archimedes knew of no way to measure the volume of the crown without melting it down.

As the story goes, Archimedes made his great discovery while taking a bath. When he sat down, he noticed that some of the water spilled over the sides of the tub. He also noticed that he felt lighter. He reasoned that the weight of the water his body displaced from the tub was equal to the buoyant force that made him feel lighter.

All he had to do was weigh the crown and an equal amount of pure gold underwater. If the two displaced the same amount of water, they would also balance one another underwater. If not, the crown was a fake.

When Archimedes weighed the crown and the gold under water, he uncovered the goldsmith’s fraud. The king’s crown weighed too little and displaced too much water to be pure gold.

A liquid becomes more turbulent as it resists pressure.

As a liquid moves through a narrow passage, it encounters frictional resistance, especially at the entrance to a passage. In fact, a sharp-edged opening may account for up to half the total pressure required to maintain a fluid’s flow.

Narrow entrances tend to constrict the movement of a liquid by altering its streamline flow.

Normally friction is almost negligible. However, as a fluid becomes more viscous (that is, it resists pressure), friction becomes a significant factor. Friction not only retards the flow of a liquid, but it also encourages turbulence. Turbulence results in a series of vortices and whirlpools that dissipate the energy of the liquid.

Turbulence is the agitated disorderly movement of a liquid. It greatly increases friction and retards normal flow. The likelihood of turbulence is directly proportional to the viscosity and velocity of a liquid and inversely proportional to the diameter of its container.

Increased viscosity results when the molecules of a liquid resist the pressure that causes a liquid to flow. Instead of flowing freely past each other, the molecules begin to form layers of ridges and trenches within the liquid itself. Even the surface becomes pitted and irregular.

As a viscous liquid moves through a narrow pipe, the outer layers slow down more quickly than the inner layers. This produces even more friction between the layers until the layers begin to spin around one another, forming whirlpools of turbulence.

Hydraulic engineers have defined a measure called a Reynolds number (“R” value) which predicts the likelihood of turbulence. The number depends
on the velocity, density, and viscosity of the liquid, and the radius of the pipe. This means that, other variables being equal, the liquid with the greatest self-attraction experiences the greatest turbulence.

According to engineers’ calculations, an “R” value of less than 2,000 suggests a smooth flow. If the Reynolds number is greater than 3,000, the flow will be turbulent. Liquids with “R” values between these two levels may go either way.

<table>
<thead>
<tr>
<th>R value</th>
<th>Smooth flow</th>
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<tbody>
<tr>
<td>2,000</td>
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<td>3,000</td>
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Resistance to the normal flow of a liquid results in turbulence. Resistance may be the result of velocity, a narrow pipe, or a viscous liquid.

“Let every soul be subject unto the higher powers. For there is no power but of God. . . . Whosoever therefore resisteth the power, resisteth the ordinance of God: and they that resist shall receive to themselves damnation” (Romans 13:1–2).

How high we rise above turbulence depends on how much we cling to those of like mind and love those who differ.

The attraction between like molecules is called cohesion. Adhesion is the attraction between unlike molecules. By definition, cohesiveness binds a liquid together, while adhesion binds a liquid to its container.

The height to which a liquid will rise in a narrow capillary tube depends on both cohesion and adhesion. Adhesion draws a liquid upward as it adheres to the walls of the tube. Cohesion holds the column together as it is lifted higher and higher. Without cohesion, a liquid breaks apart, and the column separates and falls back down the tube prematurely. Without adhesion, there is no force to lift the liquid upward.

Cohesion and adhesion work together: one lifts and the other holds. Whichever force breaks first limits the height to which a liquid will rise in a column. This action is similar to a pulley system, with cohesion working like the rope and adhesion working like the pulley that attaches the rope to a secure anchor.

Adhesion “anchors” a liquid to its container, while cohesion binds together the molecules of a liquid. The two forces work in harmony to lift a liquid upward through even the narrowest capillary tube.

A liquid such as mercury, which does not adhere to glass, actually falls below the normal surface. A narrow capillary tube pushes mercury down instead of lifting it up.

Because water has both strong cohesion and adhesion, narrower tubes actually lift it higher. Because mercury clings only to itself and does not “reach out” to molecules that differ, narrower tubes force it lower and lower.

**PROJECT**

Try blowing a table tennis ball out of a funnel. What happens if you blow the ball straight up? What happens if you blow the ball down? How does this illustrate God’s purpose for suffering?

Date completed ____________ Evaluation ____________
IS A VOTE FOR DEMOCRACY
A VOTE FOR THE STRAIT WAY
OR A VOTE FOR THE BROAD WAY?

George Washington stood on the balcony of Federal Hall in New York City in 1789 to take the oath of office as the first President of the United States of America. He placed his hand on a Bible that was open to Deuteronomy 28, which details the blessings God will pour out on a nation that is obedient in following the strait way of His Word.

1 The “broad way” in government transfers sovereignty from God to the will of the majority.

Americans like to emphasize the fact that ours is a government “of the people, by the people, and for the people.” This concept of popular sovereignty is accepted by almost everyone, but in modern thinking it has been severed from its Biblical roots. The current understanding is that it simply means the people as a nation are sovereign.

Many would agree with what Thomas Paine said at the time of the French Revolution: “The nation is essentially the source of all sovereignty; nor can any individual, or any body of men, be entitled to any authority which is not expressly derived from it.”

To assert, however, that the nation or its citizens are a government’s ultimate source of power contradicts Scripture, which teaches that all power or authority comes from above: “... The most high God rules[s] in the kingdom of men, and... appointeth over it whomsoever he will” (Daniel 5:21). To transfer sovereignty from God to man is to deny that God is sovereign.

The God of Scripture is indeed sovereign, and His sovereignty is absolute and indivisible. He cannot share it with any other person. Yet, He does delegate to man the authority (power) to rule. Thus, an accurate conception of sovereignty includes the political principle of local self-government. It is part of His plan that people should voluntarily agree (either formally or implicitly) to live together in submission to a civil government.

The governments of ancient Greece and Rome were based on the sovereignty of the majority. The ruins of these civilizations stand today as silent witnesses to the destructive way of a pure democracy.

The most basic meaning of government is, in fact, self-government. The tendency to associate the term government almost exclusively with the Washington-based bureaucracy is a relatively recent trend. In 1828, Noah Webster listed the primary synonyms of government as “direction; regulation; control; restraint.” Examples he gave indicate that Americans of that era defined government in terms of personal self-control: “Men are apt to neglect the government of their temper and passions.”
In their minds, government was as much the exercise of authority of parents over their children and of church leaders over their congregations as it was that of magistrates over citizens. As our civil government has been given more control over more areas, we have lost this fuller sense of what government really is.

When the Israelites agreed to the terms of God’s covenant at Mount Sinai, they were acknowledging God’s sovereignty and accepting responsibility for self-government.

Essentially the same process took place when the people of the United States—through their representatives—drafted and ratified our Constitution over two hundred years ago.

The principle of self-government means that the true foundation of the national government is the independent local units (e.g., tribes or states) of which it is composed. In Israel the various tribes had their own assemblies, judiciaries, and magistrates: “Judges and officers shalt thou make thee in all thy gates [in every locality], which the Lord thy God giveth thee, throughout thy tribes...” (Deuteronomy 16:18).

Based on the sovereignty of God rather than national sovereignty, the Hebrew constitution provided for only as much centralization as was necessary to ensure the adequate defense of the nation and the general welfare of the people. The equal distribution of the land also tended to keep political power widespread.

Similarly, the U.S. Constitution was carefully worded to protect the autonomy of the states. The Founding Fathers had a great fear of an overly powerful, centralized government.

Again the Scriptural ideal charts a narrow course between the extremes. Governments which are more autocratic are built on the mistaken assumption that one person (whether king or dictator) is the repository of sovereignty, which he may then delegate to a ruling elite. This means there is essentially no limitation on his power. The citizens’ freedom is invariably decreased under such a regime.

One manifestation of this philosophy in past centuries was the doctrine of the “divine right” of kings, which said that no misconduct on the part of a monarch would cause him to forfeit his right to rule.

On the other hand, a democracy assumes that the people as a whole are sovereign. The Latin phrase Vox populi, vox Dei (The voice of the people is the voice of God) reflects this view of sovereignty. The people then delegate sovereignty to the state. The problem which results from this notion is the same as with the opposite extreme: no effective limits on governmental power.

When people refuse to live under the sovereignty of God, it is not long before they must live under the tyranny of man. Tyranny may come in several forms, including dictatorships, in which everyone is forced to agree with those in power. In this picture, members of the Supreme Soviet approve legislation. The vote is always unanimous.

The “broad way” in government transfers ultimate accountability from God to man.

A true republic based on the principles of Scripture has one primary difference from other forms of government. The people govern themselves through their elected and duly appointed representatives with the understanding that they are ultimately accountable to God.

It is with this idea in mind that the Pledge of Allegiance is to “one nation under God.” Properly applied, the principle of self-government means not that the people make all the decisions but that they have a voice as to who their representatives will be.

When Moses felt that he needed other men to share the responsibility for ruling, he said to the people, “Take you wise men, and understanding, and known among your tribes, and I will make them rulers over you” (Deuteronomy 1:13). The tribes were to elect their representatives, and Moses would commission them.
The people of Israel understood that their ultimate accountability was to God: "... All the people answered together, and said, All that the Lord hath spoken we will do" (Exodus 19:8).

The counsel given to Moses for the election of leaders was both wise and necessary for successful self-government. "... Thou shalt provide out of all the people able men, such as fear God, men of truth, hating covetousness ..." (Exodus 18:21).

1. Able men: The representative should be a capable man who has proved himself successful in his leadership role in his family and in his business or profession. This, along with the stipulation that he be from among the people, indicates that he was not to be a professional politician.

2. Fear God: He must be under God's authority in order to exercise authority properly. He admits that he is ultimately accountable to God for his official actions as well as for his personal life.

3. Men of truth: A representative must be a man of integrity, whose word can be trusted. He does not seek to deceive, either by what he says or by what he does.

4. Hating covetousness: He must be blameless and above reproach in all his business dealings; he must not be influenced by the prospect of financial gain. He will never compromise his principles for the sake of a bribe, no matter how attractive it may be.

The importance God places on a representative government can be seen in the way He involved the representative assembly of the elders in establishing the new nation. In all likelihood when Moses told the Israelites about the covenant God wanted to make with them, it was this assembly whom he addressed. Similarly, when "... all the people answered with one voice ..." (Exodus 24:3), saying that they would obey the Lord, they spoke through their representatives.

Scripture indicates that God set up two kinds of representative bodies. The assembly of seventy elders most likely consisted of the heads of the fifty-eight clans listed in Numbers 26 plus one prince from each of the twelve tribes. The other assembly, usually called the congregation of Israel, was probably composed of several hundred lower officers. (See Numbers 10:2-4.)

The parallels between these two assemblies and the bicameral legislature established by the U. S. Constitution are clear.

In the twentieth century the U. S. has often been referred to as a "representative democracy." While this label does distinguish between our current system and a pure democracy, in which the citizens make all the decisions directly, it tends to obscure the fact that a fundamental change has taken place. This nation was founded not as a democracy but as a republic.

As our government has become increasingly centralized in form and more democratic in practice, the nature of representation has also changed. Noah Webster's dictionary, published in 1828 when the nation's republican roots were still understood, defines the term representative in a way that highlights this change.
A legislative representative, says this dictionary, is "an agent, deputy or substitute who supplies the place of another or others, being invested with his or their authority." For instance, "a member of the house of commons is the representative of his constituents and of the nation."

This example clarifies that one who governs as a representative not only represents the people who elected him but also serves as the representative of higher authority to the people. He is both the representative of his constituents and, in a very real sense, a representative of God. His power or authority to rule derives partially from the people (the "consent of the governed" mentioned in the Declaration of Independence) but ultimately from God.

Mr. Webster goes on to explain, "In matters concerning his constituents only, [a representative] is supposed to be bound by their instructions, but in the enacting of laws for the nation, he is supposed not to be bound by their instructions, as he acts for the whole nation."

In a democracy such as the U. S. has become, this balance is destroyed by the concern for majority rule and minority rights. It seems that Americans today prefer representatives who are responsive to public opinion rather than men of character who will vote as their consciences dictate.

This democratic trend has given rise to powerful special interest groups and "pork barrel" legislation. Lawmakers, judges, and other leaders are concerned more about the political aftereffects of their actions than the principles at stake. Those who rule often see themselves as accountable only to the partisans who put them in office, not to the electorate in general (much less to God).

Totalitarian governments go to the opposite extreme. The people have no voice in civil affairs because an autocratic ruler is responsible only to himself and perhaps to the military forces whose loyalty is necessary to keep him in power.

In the area of accountability, democracies get out of balance promoting the rights of the people. Autocracies overemphasize the rights of the ruler. In contrast, Biblical government stresses both the right of God to rule and the duty of the people to govern themselves responsibly.

Hundreds of years ago John Calvin warned: "And ye, O peoples, to whom God gave the liberty to choose your own magistrates, see to it that ye do not forfeit this favor by electing to the position of highest honor rascals and enemies of God."

In our own day one Biblical scholar said, "All agree that the men of greatest wisdom and good character should rule. . . . True, in recent times we pray for a government of laws rather than of men, but bad laws can be changed when good men rule. Contrariwise, no matter how good the laws, oppression and violence ride to war against the public weal when lawless men rule."

King Louis XIV ruled France with an iron hand from 1643–1715. He is considered by many historians to be the epitome of an absolutist monarch. His motto was "I am the state."

3 The "broad way" in government promotes the fairness of man rather than the justice of God.

The prevalence of murder and unrestrained violence was the main reason God sent the Flood.

After the Flood, the Lord told Noah and his sons: "And surely your blood of your lives will I require . . . at the hand of every man's brother will I require the life of man. Whoso sheddeth man's blood, by man shall his blood be shed: for in the image of God made he man" (Genesis 9:5–6).

Thus, one of the primary purposes for which God designed civil government was to restrain evil. In establishing civil government on the earth, God delegated to a human institution that which is otherwise a divine prerogative: the authority to
An autocratic government presumes that man is responsible to the state. Unlawful activity is classified as "crimes against the state" regardless of who the real victims are. In order to maintain a repressive sort of equality, the government assumes the right to inflict suffering on violators to whatever extent it chooses.

More democratic systems operate under the proposition that the state is responsible to man. Violations of the law are labeled "antisocial behavior." Equality is maintained by requiring everyone (taxpayers) to finance efforts to rehabilitate the offender. This results in the absurd situation of society's being punished for the offense of the lawbreaker. A thief, for example, is not required to make restitution but is instead imprisoned for a certain period of time at considerable public expense.

God's Law is the basis for equity and justice. Though the penalties it prescribes seem harsh, the Lord put strict limitations on punishments.

In contrast, a nation which follows the straight way of Scriptural principles will build its judicial system on its obligation to maintain justice rather than the desire to bring about equality. In fact, law always requires inequality on the human level. If government is to carry out its mandate to praise the good and punish the evil doer, it must discriminate between the two.

From a Biblical point of view, a citizen is responsible first to God and then to his fellow...
citizens. The state, like the individual, is primarily accountable to God. So punishment of lawbreakers takes restitution to God rather than to the government. God is the One Who imposes limitations on punishment.

The Mosaic Law embodied these principles and also placed limitations on how and to what extent the government could punish individuals.

For example, if a man was to be beaten, the number of lashes was strictly limited: “Forty stripes he may give him, and not exceed: lest, if he should exceed, and beat him above these with many stripes, then thy brother should seem vile unto thee” (Deuteronomy 25:3).

The familiar rule of “eye for eye, tooth for tooth . . .” (Exodus 21:24) was not vindictive but put an equitable limit on the penalty.

Another typical limitation was that an individual was to suffer for only his own sins. Children were not to be punished for the offenses of their parents, nor parents for those of their children. (See Deuteronomy 24:16 and Ezekiel 18.)

Similar limitations on punishment are found in our Constitution. The Eighth Amendment states: “Excessive bail shall not be required, nor excessive fines imposed, nor cruel and unusual punishments inflicted.” Article III, Section 3, prohibits a legal procedure called “corruption of blood,” by which the heirs of a criminal were deprived of their right to inherit land or other property.

4 The “broad way” in government exercises control of private property through taxation.

The Hebrew “republic” was unique among governments of the ancient world in a number of aspects, but one of the most significant was its approach to private property. In most countries of the world in that era, a tremendous gap existed between the nobility and the common people, based solely on who owned the land.

In Israel, however, God did not allow the government to recognize any economically privileged elite class: “. . . Thou shalt not respect the person of the poor, nor honour the person of the mighty: but in righteousness shalt thou judge thy neighbour” (Leviticus 19:15).

The legal basis for this balance was the ownership of the land. It all belonged to God, but He commanded that it be divided up proportionately so that every family had its inheritance to be theirs in perpetuity. (See Numbers 26:51 and Leviticus 25:23.)

Thus, there were no feudal overlords or landed aristocrats. Although the Levites were a sort of literary aristocracy, they had no separate inheritance, only certain cities scattered among the other tribes. Clearly, God intended them to be more like servants than nobles.

Even the foreigners living in Israel were legally protected: “Ye shall have one manner of law, as well for the stranger, as for one of your own country . . .” (Leviticus 24:22). Slavery, although it existed among the Israelites, was considered a form of economic discipline rather than a permanent class distinction as in other societies. Land confiscated for payment of a debt had to be returned in the year of jubilee.

It is significant that there were no property taxes in ancient Israel. The law recognized only a head tax and the tithe. The head tax was required of every man aged twenty and older, and everyone paid the same amount. (See Exodus 30:11–15.) The tithe was also required. It was a tax not on the land but on what the land produced, so it was a kind of income tax. A real estate or property tax would have been a denial of God’s ownership of the land.

Nor did the government of Israel exercise the right of eminent domain, which is the power of the state to take property away from an individual for public use. For example, King Ahab could not take Naboth’s vineyard from him because it was part of his ancestral inheritance. Although Samuel warned the people that a human king would confiscate their property, Ezekiel condemned the practice as unlawful. (See I Samuel 8:14 and Ezekiel 46:18.)

Personal and family ownership of property was one of the God-given privileges which the Founding Fathers of this nation desired to protect. James Madison went so far as to say that the protection of private property “is the first object of Government.” However, the Constitution reflects this concern more in what it does not say than in any of its specific provisions.
Although Congress was given the power to tax only the states, not individual citizens. It was not until the passage of the Sixteenth Amendment in 1913 that the federal government could directly tax individuals, and even then it was allowed to tax income but not property.

Nevertheless, today at state and local levels real estate taxes have become increasingly widespread. Many Americans are unaware of the true purpose of these taxes. The taxes are, in effect, rent paid to the government for the right to use the property. A homeowner can even lose his land if he fails to pay his property taxes. The exercise of this kind of power clarifies who the true owner is.

Similarly, estate taxes and inheritance taxes cannot be justified unless the government really does, in some sense, own the property of the deceased individual. If the government had no claim to the property, it would have no jurisdiction over it, and what happened to it would be the responsibility of the family.

Daniel Webster declared that “a republican form of government rests not more [sic] on political constitutions than on those laws which regulate the descent and transmission of property.”

The democratic drift of the federal government can also be seen in the ways our tax dollars are now being spent. Since the early 1980s over half of the federal budget expenditures each year have been for direct payments to individuals or for social services. The only justification for such a massive transfer of wealth from those who earn it to those who prefer not to work is the idea that the state ultimately owns the land and what it produces.

Because the right of eminent domain is not mentioned in the Constitution itself as one of the powers of the federal government, it is obvious that the framers intended to exclude it. The Tenth Amendment affirms this:

“The powers not delegated to the United States by the Constitution, nor prohibited by it to the states, are reserved to the states respectively, or to the people.”

Exercising its “right” of eminent domain, the government took prime agricultural land, which had previously been used for orchards and truck farms, in order to construct this highway interchange.

It might be argued that the U. S. has the right of eminent domain on the basis of sovereignty, but this would be a misunderstanding of who is sovereign in a republic. Nowhere in the Constitution do we find the word sovereign, a term that was reserved for God alone in the Puritan tradition out of which that document sprang.

Over the years, the “due process” clause of the Fifth Amendment has been used as grounds for claiming the right of eminent domain. What was intended to serve as a limitation on the power of the central government in a republic has actually become, in a democracy, the basis for asserting state ownership of property.

The legal positivism of the twentieth century goes even further. Oliver Wendell Holmes, a justice of the Supreme Court, once said, “The constitutional requirement of compensation when property is taken cannot be pressed to its grammatical extreme: . . . property rights may be taken for public purposes without pay if you do not take too much; . . . some play must be allowed to the joints if the machine is to work.”
Thus, in regard to property, two extremes of governmental involvement can be identified. In an autocratic system, the approach to property is feudalistic. The land all belongs to the king or dictator. The people are like vassals.

In a democracy, a socialistic viewpoint will eventually prevail. The land and the means of production in an industrial society are regarded as belonging to all the people—in other words, to the state. The people then become mere tenants to whom the state grants the privilege of renting its property.

An eighteenth-century historian described what typically takes place under a democratic form of government: “A democracy cannot exist as a permanent form of government. It can only exist until [a majority of] the voters discover[s] they can vote themselves largesse from the public treasury. From that moment on the majority always votes for the candidate promising the most benefits from the public treasury, with the result that a democracy always collapses over loose fiscal policy [taxing and spending], always followed by a dictatorship.”

World War I devastated Italy’s economy. Benito Mussolini’s promise of prosperity and restoration of the glories of ancient Rome gained the loyalty of the people. Once in power, Mussolini systematically destroyed the freedoms the people expected him to establish.

The Scriptural concept is that the land (as well as everything else people possess and are) belongs ultimately to God. The people are stewards of whatever God entrusts to them. Therefore, the state must not be allowed to interfere with the ownership of private property. This narrow path results in the maximum amount of personal freedom and economic stability.

5 The “broad way” in government exchanges God’s checks and balances for man’s license.

The foundation of the Biblical view of man is the fact that he was created in the image of God. This divine imprint on man’s nature reveals that he was created for freedom. Thus, God told Adam, “. . . Of every tree of the garden thou mayest freely eat” (Genesis 2:16).

Yet, because his freedom was liberty rather than license, there was a restriction: “But of the tree of the knowledge of good and evil, thou shalt not eat . . .” (Genesis 2:17).

When man chose to ignore that restriction, sin entered the world. Now every member of the human race inherits a sin nature. In order to restrain the violence produced by this sin nature, the Lord instituted civil government among men. (See Genesis 9:5–6.)

His purpose for government was to preserve man’s freedom (to the extent possible), not to take it away. Yet, because of man’s innate inclination toward sin, not only the ruled people but also the rulers were given restrictions.

For this reason when God entered into a covenant relationship with His “holy nation,” He did not establish a monarchy in which a king would have unrestricted authority, nor did He set up a democracy in which the power of the people would be unlimited.

Instead He gave the Israelites a republic with the system of checks and balances which that form of government presupposes. The various functions of government were distributed in such a way that no individual or group had too much power.

Under the Mosaic code the executive, legislative, and judicial powers were separated, although they were not grouped into distinct branches as they are in our system. The authority of the chief magistrate, for example, was limited by that of the council of elders, and vice versa. The assembly of the congregation was a restraint on both.

In addition to these checks and balances within Israel’s national government, there was a similar system within the tribes. The relative independence of the tribes was a check on the national authorities, and God’s direct sovereignty over the people was a general balancing factor.

The ultimate check on all the civil functions was the absolute sovereignty of God, under which
"For the Lord is our judge, the Lord is our lawgiver, the Lord is our king..." (Isaiah 33:22).

It is clear that our Founding Fathers understood and agreed with the Biblical evaluation of man's fallen nature and the need for restraints on it in the realm of government. This is why they were careful to build checks and balances into the Constitution.

James Madison and Alexander Hamilton wrote in The Federalist: "It may be a reflection on human nature, that such devices should be necessary to control the abuses of government. But what is government itself, but the greatest of all reflections on human nature?"

Alexander Hamilton wrote over half of the eighty-five essays published under the title of The Federalist, a collection of articles originally printed in a New York newspaper for the purpose of persuading the American public to accept the proposed Constitution. Mr. Hamilton and the other writers were quite convinced of the value of a system of checks and balances.

The essay continued: "In framing of a government which is to be administered by men over men, the greatest difficulty lies in this: you must first enable the government to control the governed; and in the next place oblige it to control itself."

The Constitution provides for a variety of checks and balances by which each independent branch can restrain the others. The framers were particularly concerned that the legislative branch not overstep its bounds. Thus, the President has the power to veto legislation, and the Supreme Court can declare acts of Congress unconstitutional.

As a way of balancing these controls, Congress is given the power to override a Presidential veto and to impeach executive officials. The Senate can restrict the Chief Executive's actions by refusing to ratify treaties or to confirm Presidential appointees. Congress can also impeach judges and change the number of justices on the Supreme Court.

In turn, the high court exerts a measure of control over the President by being authorized to declare actions of the executive branch unconstitutional. The balancing factor is that the President is the one who nominates judges, and he can also grant pardons for federal offenses.

Additional checks and balances were designed to preserve our republican form of government. To prevent the U. S. from becoming a democracy, the writers of the Constitution placed restraints on how much power the people hold over the government. These restraints took the form of indirect election of Senators and the President.

Originally, Senators were elected by state legislatures and the President was elected by special representatives called electors, who were chosen in each state by whatever method its legislature chose. Although at first some legislatures selected electors themselves, today they are all chosen by popular vote.

Until a Constitutional amendment was passed in 1913, the members of the Senate were not elected directly by the voters.

To keep this nation from slipping into autocracy, the Founding Fathers were careful to limit how much power the federal government...
would have over the states and over the people. In addition to having checks and balances among the three branches, they intended that the Constitution itself serve as a check on each branch.

However, as the executive and judicial branches have become more powerful, they have taken on legislative powers the framers never envisioned them having, thus negating the effectiveness of the original system of checks and balances. (See Wisdom Booklet 20, Law Resource.)

One historian has commented: "Human government . . . always swings between the two opposite poles of regimentation and fragmentation: the former leading to sacrifice of liberty in the interest of strength; the latter to sacrifice of strength in the interest of liberty. And the head of state tends to become either a dictator or a mere symbol."

Regimentation characterizes an autocratic government because such systems operate on the basis of a distorted view of human nature. The autocrat sees man as evil by nature. The state, therefore, controls the people, and "freedom" means that the ruler has the right to do as he pleases.

In contrast, fragmentation is typical of democracies because they are based on an equally fallacious belief about the nature of man. The democratic approach assumes that man is inherently good, moral, and unselfish. The people control the state, because "freedom" means the right of individuals to do as they please.

The strait way that avoids either extreme is based on an accurate understanding of human nature. The truth from Scripture is that man was created in God's image but because of the Fall inherits a sin nature. It is thus necessary that God control both the state and the people. Only then is it possible for a country to have true freedom, which is the ability of the people and the state to do as they ought.

On the subject of how freedom is related to self-control, Edmund Burke said: "Men are qualified for civil liberties in exact proportion to their disposition to put moral chains on their own appetites."

The second stanza of Katherine Bates' familiar poem which became the hymn "O Beautiful for Spacious Skies" expresses a similar perspective with this petition:

"America! America!  
God mend thine ev'ry flaw,  
Confirm thy soul in self-control,  
Thy liberty in law!"
an objective and consistent basis for legal decision making. Thus, the magistrates as well as the people themselves were under law.

This governmental principle is called the rule of law, which means, according to Black’s Law Dictionary, that “decisions should be made by the application of known principles or laws without the intervention of discretion in their application.” If a nation is to experience success, the “known principles and laws” can have only one source: God’s Word.

The question may be raised, “What are the implications of the rule of law for a non-theocratic government?” It should be noted that the Hebrew constitution does not separate civil law from religious law. The reason for this is that all law, regardless of what sphere of human activity it is applied to, is inevitably religious in nature.

Whatever a society regards as the ultimate source of its law is that society’s deity. If the people see law as being derived from human reason, then reason is, in fact, their god. Where law originates in the state, the state is god.

Mao Tse-Tung, the Chinese Communist dictator, articulated the concept of the source of law as deity. He wrote, “Our God is none other than the masses of the Chinese people.”

This is why the current concept of the separation of church and state is so dangerously deceptive. It assumes that a government can operate by a humanistic philosophy but still provide the benefits that come only as the result of submission to God’s authority.

People want a just and orderly society with the maximum amount of personal freedom, but they reject the Godly standards that would bring this order about as being too restrictive and confining. Little do they realize that by rejecting our Christian heritage they are in effect throwing away “liberty and justice for all.”

One contemporary Christian commentator has said, “The mass of alienated Americans today neither know nor understand the religious presuppositions underlying their form of government, and they would not be in sympathy with them if they did understand them.”

The Constitution does not mention God, Christianity, or the Bible. One reason for this is that the framers were operating in an era and a culture in which Scriptural principles were generally accepted as valid, even by many who personally rejected Christ and the Church. They considered a Christian worldview as a given.

There are several small but significant indications in the text itself that the Founding Fathers were consciously formulating this new government under God. The Biblical concept of a covenant was implied in the Preamble, for example. The procedure specifying a time limit for Presidential action on a bill passed by Congress recognizes the Lord’s Day as a day of rest.

The fact that the Constitution explicitly accepts the validity of the common law, which has its roots in Scriptural principles, also points to the religious foundation the writers were laying for our legal system. The phrase “in the year of our Lord” in the final Article is another indication.

In the light of history, it is clear that the men who drafted the document that established our form of government in 1787 did not intend for the First Amendment guarantee of religious freedom to be used in the way it is today. Their purpose was to keep the federal government from interfering in matters of religion—not to keep religion, the Christian faith in particular—from having any influence in public affairs.

As one contemporary Christian lawyer has observed, “Those who strive to isolate religion completely from government, business, and education are in reality attempting to destroy the Christian religion. While trying to make this country free from religion, they are destroying the nation. There is no reason the government and the Christian religion cannot cooperate and work together. This is the American tradition that was intended to be protected by the First Amendment.”

So at one end of the political spectrum, autocracy operates on the basis of one man’s opinion as the source of law (for example, Hitler’s Germany). This results in some form
of state-controlled religion, such as an established church or emperor worship.

At the other extreme, democracy regards public opinion as its ultimate source of law. When the ideas of the people change, then the laws need to be altered to reflect new values. For this reason democracy and pluralism go hand in hand. (See Wisdom Booklet 8, Law Resource.) Under this kind of government, secular humanism becomes the state religion.

A Scriptural form of government, in contrast, will demonstrate the proper balance in the matter of how church and state relate to each other. The freedom of individuals to believe whatever they choose does not mean that the society cannot uphold God’s standards through its civil institutions. This type of government does not apologize for regarding God and His Word as the source of its law. The result is true freedom of religion.

Noah Webster said: “The moral principles and precepts contained in the scriptures ought to form the basis of all our civil constitutions and laws. All the miseries and evils which men suffer from vice, crime, ambition, injustice, oppression, slavery, and war, proceed from their despising or neglecting the precepts contained in the Bible.”

Although he did not even profess to be a Christian, Thomas Jefferson realized the importance of a nation’s remaining in the strait way. He wrote in 1776, “Can the liberties of a nation be thought secure when we have removed their only firm basis, a conviction in the minds of the people that these liberties are the gift of God?”

In the 1930s the president of Columbia University wrote a book entitled Why Should We Change Our Form of Government? He wrote: “There is under way in the United States at the present time a definite and determined movement to change our representative republic into a socialism ... if it is successful, it will bring an end to the form of government that was founded when our Constitution was made.”

The Founding Fathers were concerned at the outset that we might not be able to maintain the republican form of government they wrote into the Constitution.

As Benjamin Franklin was leaving Inde-

As Benjamin Franklin was leaving Inde-
cence Hall in Philadelphia after the Consti-
tutional Convention had completed its work, he was reportedly stopped by a woman who asked anxiously: “Dr. Franklin, what kind of government have you given us?”

The eminent elder statesman replied, “A republic, madam, if you can keep it!”

Over the years many other leaders have sounded a similar warning as they saw our nation slipping into what one Congressman in the 1790s called “the abyss of democracy.”

In 1815 President John Adams warned that democracy, though it is short-lived, is bloodier than either an aristocracy or a monarchy while it lasts. In the end, he said, a democracy always commits suicide.

It is difficult indeed for any nation to stay on the strait way marked out by the Scriptural principles of government. Like a steep mountain road that climbs higher and higher, it is very confining and demanding. The wide, level route of democratic or autocratic government requires much less self-discipline of its citizens than does a Bible-based republic.

**PROJECT**

In addition to advocating pure democracy, there is a strong emphasis in our country of separation of Church and State. However, those who advocate this idea are communicating their true intentions of separating God from government. Separating God from government is putting our country on the “broad road that leads to destruction.”

Based on the information in this Resource, write a convincing response to those who would claim that our Constitution requires the separation of Church and State.

One of your strong points should be the Pledge of Allegiance to "one nation under God."
Looking like a complex freeway system, the arteries, veins, and capillaries supply hundreds of different substances to the body's more than thirty trillion cells.

When Jesus said, "... I am the way, the truth, and the life: no man cometh unto the Father, but by me" (John 14:6), He used the same word, ὁ δόξα (haw-DOSS), that He used when He said, "... Narrow is the way, which leadeth unto life. . ." Thus, Jesus was teaching that He, Himself, is the strait way. The words are not merely an analogy; they are an identity.

Learn how arteries, veins, and capillaries illustrate the awesome wonder of the strait way as well as the awesome wonder of Christ.

1 THE CIRCULATORY SYSTEM INCREASINGLY RESTRICTS WHAT PASSES THROUGH IT.

The circulatory system remained a mystery until the early 1600s when William Harvey, an English physician, was obliged to conclude that a person's blood flows through a single circular route. Blood vessels carry blood away from the heart, distribute it to each individual cell in the body, and eventually carry it back into the heart to be pumped around again.

Dr. Harvey never saw the tiny capillaries which connect arteries and veins into a unified delivery system. In fact, it was not until Anton van Leeuwenhoek's invention of the microscope in the latter half of the 1600s that anyone was able to confirm Dr. Harvey's conclusion. This was because capillaries are so small that they are invisible to the unaided eye.

The average blood cell makes a round trip through the circulatory system every sixty seconds, traveling at speeds of up to ten miles per hour. The capillaries are so small that red blood cells can pass through them only in single file.

As physicians began to map out the circulatory system in detail, they found a pattern which repeated itself throughout the entire body. Arteries branch into smaller vessels called arterioles. These, in turn, split into smaller and smaller vessels until they become so fine that red blood cells have to proceed in a single file in order to pass through.

After forming these narrow channels, called capillaries, the system begins to widen again. Individual capillaries join to form venules. Venules collect blood and funnel it into larger vessels called veins. Eventually the veins converge, emptying their contents into the right atrium of the heart. The returning blood, devoid of all its life-giving properties, is then rejuvenated and purified for another trip.
**THE CIRCULATORY SYSTEM LINKS THE WEAK TO THE STRONG.**

The circulatory system links a variety of uniquely constructed vessels into a purposeful whole. Arteries are as different from veins as feet are from hands. Although both types of vessels carry blood, their construction is so different that they hardly seem compatible. Yet, the dissimilar members actually compliment one another.

Arteries are constructed much like the tough but flexible walls of a fire hose, which allows them to withstand the powerful pumping action of the heart. Each of an artery’s three layers, called tunics, differs from those that surround other vessels of the circulatory system.

The inner tunic, tunica intima, has a soft lining covered by an elastic membrane. The middle tunic, tunica media, also has a thick layer of elastic fibers surrounded by a thick layer of smooth muscles. These smooth muscles are arranged in rings around the hollow core of the vessel. The outer coat, tunica adventitia, is made of tough collagen fibers intertwined with even more elastic fibers.

In sharp contrast to the construction and function of arteries, veins contain only a limited number of smooth muscle fibers and few elastic fibers. Like arteries, they have three tunics, but they contain mostly white fibrous tissue that stretches easily without snapping back to its original size.

ANATOMY OF AN ARTERY

Arteries are specifically designed to conduct fluids under high pressure. The abundance of elastic fibers allows arteries to stretch with each surge of blood from the heart. As the blood passes, artery walls snap back to their original size and shape. This elasticity helps to maintain the pressure within an artery so the blood keeps moving.

Veins are actually little more than sacks which collect and hold blood on its back to the heart. They are noted for being able to dilate by as much as 400 percent. Under some conditions of rest, they swell so much that blood pressure literally drops to zero and blood flow comes to a complete stop. Blood then moves forward in a vein only when skeletal muscles surrounding it contract. As the muscles contract, they squeeze the veins, forcing the blood back toward the heart.

Because veins substantially outnumber arteries, they contain about 75 percent of the body’s total blood volume at any given time. This constitutes a cardiovascular reserve that holds blood in a state of readiness in case it should suddenly be needed. Arteries contain about 10 percent of the blood volume, capillaries about 5 percent, venules and small veins about 54 percent, and the large veins about 21 percent. The heart chamber itself holds the remaining 10 percent.

ANATOMY OF A VEIN

Veins are specifically designed to conduct fluids under minimal pressure. To prevent a backwash of blood flowing the wrong way, veins are equipped with valves that allow blood to flow in only one direction. These valves, called semilunar valves, swing open ahead of a rush of blood, then snap shut to prevent back-flow.

The capillaries that link weak veins to strong arteries are themselves unique. Their surfaces consist of a single layer of cells, called squamous cells, arranged in a random matrix. The term squamous comes from the Latin word squama, meaning “a thin scale.” Because capillary walls have no tunics, substances carried in the blood pass through quite easily. In contrast, the thick walls of arteries and veins are too great a barrier for any exchange of life-giving substances.
A cross section of a capillary magnified 20,000 times reveals its thin, permeable wall. Capillaries are usually less than ten-thousandths of a millimeter in diameter. Their walls are so thin that oxygen, glucose, and water can move freely back and forth through them.

The thin walls of capillaries are also perforated with both large and small pores that allow electrolytes, glucose, and amino acids to pass through as easily as water passes through a sprinkler system. While the pores constitute only a small percentage of the total capillary surface area, they provide sufficient opportunity for the rapid exchange of substances in and out of the narrow way.

3 THE CIRCULATORY SYSTEM MULTIPLIES CONTACT WITH THE BODY AS IT NARROWS.

According to the principles of hydraulics, the velocity of blood moving through arteries and veins would be inversely related to the cross-sectional area of the vessel. That is to say, blood would flow faster through smaller vessels and slower through larger vessels. However, just the opposite is true in the body’s circulatory system.

Each time an artery divides into two or more arterioles, the total cross-sectional area of the system increases. Conversely, when small venules combine to form larger veins, the total cross-sectional area of the system decreases.

For example, the cross-sectional area of the aorta is about 2.5 square centimeters, and the velocity of blood passing through it is flowing at a rate of approximately 40 centimeters per second. By the time blood from the aorta branches out hundreds of times and finally reaches the capillaries, the total cross section is more than 2,500 square centimeters. That is a thousand-fold increase. Even though the vessels are narrower, the total capacity is greatly multiplied, and the blood slows to a pace of only 0.1 centimeter (1 millimeter) per second.

As venules collect blood from the capillaries and combine with other venules to form a larger vessel called the vena cava, the cross-sectional area drops back to about eight square centimeters. While the vessels appear to be growing larger, the total capacity for flow decreases. This accelerates the flow of blood returning to the heart to a rate of between 5 and 20 centimeters per second.
grapes. These sacs, called alveoli, are in turn surrounded by capillaries from the circulatory system.

Although there may be as many as 750 million alveoli and sixteen acres of capillaries in the lungs, there is seldom more than three ounces of blood in those capillaries. That means that the blood is spread so thinly across the surfaces of the alveoli that air can freely move in and out of the bloodstream.

At any given time, the lungs hold approximately 6,000 milliliters of air. Because we seldom breathe more than 500 milliliters of air at a time, it takes more than sixteen breaths to renew the air in the lungs completely.

The air we breathe contains an ample supply of oxygen, but the blood in the capillaries of the lungs has very little. This difference in concentration creates a pressure that forces oxygen out of the air and into the bloodstream. In fact, the pressure is normally so great that the exchange takes just a quarter of a second. In that short time the blood changes from a purplish, oxygen-less fluid into a bright crimson stream that quickens the entire body.

However, before oxygen can move from the air to the bloodstream, it must first dissolve in water. Without water to cover the surface of each alveolus, oxygen could not enter the circulatory system. To hold moisture in the lungs, cells along the narrowing respiratory tract secrete a fluid called mucus. Mucus also helps to condition the air we breathe, filtering out dirt and warming and humidifying the air before it reaches the lungs.

At the same time that oxygen flows from the bloodstream, carbon dioxide flows out of the bloodstream into the lungs, where it can be exhaled. Unlike oxygen, which is carried by hemoglobin molecules, carbon dioxide must undergo a series of complicated chemical reactions before it can be exchanged.

Because carbon dioxide (CO₂) is poisonous, it cannot flow through the circulatory system unattended. In one of the fastest reactions known to chemists, hemoglobin in the bloodstream converts carbon dioxide into harmless baking soda. When the baking soda reaches the capillaries of the lungs, the hemoglobin molecules reverse the process so the CO₂ can be exhaled.

Oxygen’s greatest pressure is in the lungs. Carbon dioxide’s greatest pressure is in the body tissues. These differences in pressure provide for a constant exchange of vital gases throughout the circulatory system.

Surprisingly, the degree to which hemoglobin binds oxygen is directly proportional to the carbon dioxide which cells produce. The more CO₂ in the bloodstream, the more oxygen can be transported. This relationship automatically adjusts the flow of oxygen to the members of the body for any needed increase or decrease.

When a person exercises, the body’s demand for oxygen may multiply by as much as twenty times. Therefore, the capillaries of the lungs must somehow do twenty times more work. In addition, as the heart beats faster, the exchange of oxygen and carbon dioxide must take place in less than two seconds.
accomplish this feat, a person breathes deeply to expose five to ten times more capillaries to fresh air. At the same time, the increased concentration of carbon dioxide triples the rate at which oxygen moves in and out of the bloodstream. As a result, the blood is saturated with enough oxygen to meet the demand.

5 THE CIRCULATORY SYSTEM PRESERVES BALANCE AMONG THE MEMBERS OF THE BODY.

Most substances cross capillary walls by a process known as diffusion, in which they move from regions of high concentration to regions of low concentration. For example, blood in a capillary has more oxygen than do the tissues around it. Oxygen diffuses out of the capillary and into the surrounding tissue. Likewise, carbon dioxide, which is more concentrated in body tissues than it is in the bloodstream, diffuses into the capillary. The result is an exchange of the two gases.

As the two gases move back and forth, they establish a balance. Blood loses oxygen and collects carbon dioxide. The surrounding tissues pick up oxygen and get rid of carbon dioxide, resulting in a steady exchange of life-giving oxygen and poisonous carbon dioxide.

Elements such as sodium, potassium, chloride, magnesium, and phosphates also move back and forth through capillary walls by diffusion. In other instances, substances such as large protein and fat molecules must be lifted and carried through the capillary wall one molecule at a time. Physicians call this type of movement active transport.

Concentrations out of balance

Concentrations in balance

When substances diffuse, they always move from areas of greater concentration to areas of lesser concentration. Equilibrium is reached when the concentrations of the two areas are in balance.

Like ships moored at a dock, capillaries and cells exchange cargo. Oxygen, capillaries and cells exchange cargo. Oxygen, carbon dioxide, electrolytes, minerals, glucose, hormones, and antibodies are the staples of their trade.

Active transport involves complex chemical interactions which allow “carriers” to latch onto life-giving substances and lift them out of the bloodstream in much the same way that a loading crane lifts cargo from one place to another.

Because the rate of diffusion is directly proportional to the distance substances must travel, it is vitally important that every member of the body be as close as possible to a capillary network. At a distance of 10 microns, less than 0.01 second is required for 90 percent of the oxygen in a capillary to diffuse. However, at a distance of 1 millimeter, it takes more than 100 seconds. Without the capillaries’ provision of easy access to the blood supply, the body could not preserve balance among its members.

Because of their thin walls, however, capillaries are extremely fragile. A strong blow can rupture them, allowing blood to rush into the surrounding tissue. This causes swelling and bruising. For example, it is the rupture of capillaries which produces a “black eye.”

Capillaries become even more fragile in the elderly, in people taking high doses of steroids, and in victims of scurvy (vitamin C deficiency). These groups of people have a tendency to exhibit small black and bluish-purple areas of bleeding under the skin. Physicians call this condition purpura, which, in Latin, means “purple.”

6 THE CIRCULATORY SYSTEM GUARDS AND CLEANSES THE HEART.

The blood vessels that supply the heart are known as coronary arteries. The word coronary comes from the Latin word coronarius, meaning “crown,” and these arteries surround the heart like a crown.
There are two coronary arteries, each of which is smaller than an eighth of an inch in diameter. They branch off the aorta, one to the left and one to the right, traveling along the surface of the heart. As the coronary arteries branch outward into smaller and smaller arterioles, they penetrate into the cardiac muscle and continue to disperse until every muscle fiber of the heart is paralleled by an individual capillary.

**THE CORONARY ARTERIES**

Coronary arteries cleanse, protect, fuel, and repair the heart twenty-four hours a day.

The velocity of the blood in these capillaries is the slowest in the whole cardiovascular system. This ensures adequate time for exchange (diffusion) between the capillaries and adjacent tissues.

A fatal aspect of these coronary arteries is that there are no anastomoses between them. An anastomosis is a link between blood vessels that provides alternate routes for blood to reach an isolated member. It comes from a Greek word that means literally “to furnish with a mouth.”

If a vessel is blocked by disease or circulation to the member does not necessarily stop. An anastomosis may simply open up an alternate section of arteries and capillaries to serve the member. However, because the two major coronary arteries are not equipped with anastomoses, there is no way for circulation to be restored to the rest of the heart if a blockage should occur. Only the smaller branches of the main coronary arteries have junctions that can divert the flow of blood to alternate sites.

This makes the two major coronary arteries the most vulnerable points of the entire circulatory system. In fact, blockage of one or both of these arteries is responsible for more deaths in the United States than any other single cause.

For example, if atherosclerotic plaque breaks loose from the inner lining of a coronary artery, it may completely block the flow of blood. Within a matter of seconds, the heart muscle served by that artery begins to tire and to fill with toxic waste products from its own metabolism. If circulation is not restored immediately, a heart attack results.

**RESTORED CORONARY CIRCULATION**

The human circulatory system can actually restore blood flow to wounded sections of the heart. The new network of capillaries helps repair damaged tissue.

If a patient can survive for a month, new capillaries invade the area and reestablish circulation. Physicians call this expanded network of coronary blood supply **collateral circulation**.
The technical term for "heart attack" is **myocardial infarction** (my-oh-KAR-dee-in-FARK-shun), which has both Greek and Latin roots. **Myo** means "muscle," and **kardia** means "heart" in Greek. **Infarct** means "to stuff" in Latin. Thus, the term indicates that something has been "stuffed" into the normal path of blood flowing to the heart muscles.

In some cases a coronary blockage occurs at a point where an anastomosis can restore at least partial flow to the affected area. This prevents a complete infarction. The affected vessels begin to enlarge, and within a few days they can actually double in size. While they keep the threatened cardiac muscle alive, they provide time for other anastomoses to redistribute an adequate supply of blood to the heart.

A myocardial infarction, however, does not cause death in and of itself. Instead it sets in motion a chain of events that eventually leads to death from other causes, including cardiac shock, edema, fibrillation, and actual rupture of the heart. Cardiac shock occurs as a result of decreased output by the heart. As other members fail to receive an adequate supply of blood, they become fatigued and die.

**Edema** results as blood begins to back up in the venous system. This does not usually happen immediately. Several days after a heart attack, the diminished flow of blood to the kidneys causes the body to retain excessive amounts of fluid. As fluid and stagnant blood build up in the victim’s lungs, he can eventually drown in his own blood. Unfortunately this can happen suddenly in a patient who otherwise appears to be recovering.

**Fibrillation** is a condition in which the heart twitches uncontrollably. Individual muscles contract independently without any coordination, preventing the heart from effectively pumping blood. Fibrillation may result from too much or too little potassium, or it may simply be from the shock of injured cardiac muscles and nerves.

A ruptured heart results from the wasting away of dead muscle cells. There is little danger of a rupture during the first few days after a heart attack, but as dead muscle fibers degenerate and the walls of the heart become very thin, the risk increases.

**THE CIRCULATORY SYSTEM RESPONDS QUICKLY TO STRESS.**

Doctors estimate that a person at rest uses less than half and sometimes as few as one-fifth of the capillaries in his body. That means that as many as 48,000 miles of capillaries may be shut down at any one time.

During stress, however, these closed vessels open to increase the flow of blood to the affected member(s). For example, when a person runs, capillaries in the leg muscles dilate to allow more blood flow. The sphincters at the end of arterioles also dilate to direct blood into every available vessel. The net result is a dramatic increase in circulation.

At the start of physical stress, the brain sends signals to its circulatory center. This center, called the **vasomotor center**, triggers the heart to increase its rate and its pumping strength and also coordinates the distribution of blood throughout the body.

Those members that are not primarily involved in the activity receive less blood, and their capillaries are closed. On the other hand, the capillaries of those members that are directly involved receive up to twenty times as much blood. In some cases this may involve up to two and a half liters of extra blood. In effect, those members that are not active lend blood to those that are active.

Increased muscular activity also triggers the vasomotor center to open capillaries on the surface of the skin. This process transfers the excess heat of exercise away from the active member so it can dissipate into the air.
THE CIRCULATORY SYSTEM RENEWS AND PROTECTS THE MIND.

The brain is the most active member of the body and requires more nourishment and oxygen than any other member. Even though it accounts for only 2 percent of a person’s body weight, it requires the “attention” of 20 percent of the circulatory system.

Using a radioactive probe, researchers discovered that capillaries open and close to increase the flow of blood to any part of the brain that is active. They found that brain cells require additional amounts of blood when they “think” in much the same way that muscle cells require more blood when they exercise.

BLOOD VESSELS OF THE BRAIN

Simply clasping your hands together promotes an increased flow of blood to the section of the brain responsible for their movement. Reading a book automatically triggers increased flow to the occipital cortex that controls the eyes and the language areas of the temporal cortex.

These changes in the circulatory system renew the supply of glucose and oxygen and remove carbon dioxide. The brain has a very limited capacity to store energy and must rely on the circulatory system to supply it with a constant source of glucose. If deprived of glucose for even a short time, mental confusion, dizziness, and convulsions may occur.

If the flow of blood to the brain is interrupted for one to two minutes, a person may faint from a lack of oxygen. If blood flow is not restored within four minutes, cells can be permanently damaged. Lysozymes in the brain cells are especially sensitive to a lack of oxygen. When deprived of oxygen, they split open and release harmful enzymes actually destroy brain cells from within.

While oxygen, carbon dioxide, and glucose diffuse quickly through capillary walls, other substances are blocked almost completely by the “blood-brain barrier.” Capillaries in the brain are uniquely constructed so they can selectively filter out harmful substances. Unlike other capillary networks, those in the brain are surrounded by a membrane of densely packed squamous cells. This barrier protects sensitive brain cells from impurities.

One of the dangerous side effects of drug abuse is the degeneration of this blood-brain barrier. As the barrier loses its filtering capacity, contaminants damage the brain. The blood-brain barrier can be harmed also by fever, poisons, or injury, leaving the brain vulnerable to infiltration.

PROJECT

Many of the functions which God designed for the Christian to accomplish in the Church are illustrated in the work which the circulatory system carries out for the human body.

Make an application to the Christian life from each of the following functions of the circulatory system.

1. Blood cells bring nourishment to every part of the body.
2. After giving nourishment, blood cells need to be rejuvenated and purified.
3. Arteries are designed to endure pressure and, in turn, to empower individual blood cells to reach their destination.
4. Blood cells remove poisonous wastes from the body.
5. The most vulnerable blood vessels are those which are located next to the heart.
6. Without oxygen, the brain would die.
7. The circulatory system requires blood to go in only one direction—forward.
8. More purification takes place in the capillaries than in the large arteries.

Date completed ___________________ Evaluation ___________________