Wisdom Booklet 39

Matthew 6:22-23

"The light of the body is the eye: if therefore thine eye be single, thy whole body shall be full of light..."

How well do you understand the concept of light?

True/False

1. The word light in this passage refers to spiritual understanding.
   (Read Ephesians 1:18.)
   • There is rich physiological truth and insight in this verse; however, its broader interpretation involves the light of Christ because He is the Light of the world. (See John 8:12.)
   Spiritual perception is needed to see the light.
   (See Romans 1:21.)

2. Every person who has been born has some of God's light within him.
   (Read John 1:9.)
   • The initial light in every heart is not Christ's presence but Christ's conviction. The law of God is written on each person's conscience, and it reveals to him enough spiritual understanding to bring him to repentance and salvation so that everyone is "without excuse." (See Romans 1:20.)
   The light of Christ brings peace and harmony to every heart.
   (See II Corinthians 6:14.)

3. The word eye in this passage refers to that in which we delight.
   (Read Mark 8:17-18.)
   • Just looking at an object does not mean that we see it or comprehend its significance. Eyes must be trained. When we see what God wants us to see, our lives are filled with spiritual light. When we focus on our own interests, our lives are filled with darkness.
   If we delight in the Lord, He will illuminate us with His desires.
   (See Psalm 37:4.)

4. The phrase evil eye refers to a person who is greedy of gain.
   (Read Proverbs 28:22.)
   • Both generosity and covetousness are character qualities of the eye. "He that hath a bountiful eye shall be blessed..." (Proverbs 22:9). Reacting to generosity because of greed is a sign of an evil eye.
   (See Matthew 20:15.)
   Scripture makes an evil eye synonymous with idolatry.
   (See Colossians 3:5-7.)

5. The phrase evil eye can refer to a covetous church leader.
   (Read Titus 1:10-11.)
   • The function of the eye is to watch out for the body. A Christian leader has this same responsibility. (See Hebrews 13:17.) Similarly, the concept of the body is used not only of an individual, but also of the Christians who make up the Body of Christ. (See Romans 12:4-5.) The consequence of false teaching will be spiritual darkness.
   When spiritual light is rejected, Satan sends spiritual darkness.
   (See II Thessalonians 2:11-12.)

Total Correct
THE LIGHT OF THE BODY IS THE EYE: IF THEREFORE THINE EYE BE SINGLE, THY WHOLE BODY SHALL BE FULL OF LIGHT.

BUT IF THINE EYE BE EVIL, THY WHOLE BODY SHALL BE FULL OF DARKNESS. IF THEREFORE THE LIGHT THAT IS IN THEE BE DARKNESS, HOW GREAT IS THAT DARKNESS!

The truths of this passage can be applied to individual Christians or to leaders in the church who are appointed to watch over Christians and to bring light through preaching. The leaders are instructed to avoid greedy motives in their ministering. (See Hebrews 13:17 and 1 Peter 5:2.)

The spiritual illumination which is available to every Christian is explained in Ephesians 1:17-18: “That the God of our Lord Jesus Christ, the Father of glory, may give unto you the spirit of wisdom and revelation in the knowledge of him: The eyes of your understanding being enlightened. . . .”

In this same passage, Christ is referred to as “… the head over all things to the church, Which is His body, the fulness of him that filleth all in all” (Ephesians 1:22-23).

God warns that if a person rejects the truth, He “… shall send them strong delusion, that they should believe a lie” (II Thessalonians 2:11).

How did the single eye of a wealthy young lady bring spiritual light to millions?

How did the evil eye of a king rob him of light for a major decision?

How are cults the result of spiritual light turned to darkness?
How do animals who live in darkness illustrate people's response to light?

Animals that live in darkness usually have vertical slits in their eyes rather than round pupils. With these slits they can close off light completely—while their eyelids are still open! Jesus observed this same capacity in people, that is, the ability to close off spiritual light. (See Mark 8:18.)

Various reptiles can draw a "veil" across the back of each eye and totally shut out light—again, while their eyes are open. Scripture reveals that a similar veil exists in the eyes, minds, and hearts of people until they become Christians: "... Which veil is done away in Christ." (II Corinthians 3:14.)

Most nocturnal creatures run from light, and this is what God predicts the wicked will do when confronted with spiritual light. (See John 3:19–21.)

Do Resource D.

How does the blind salamander illustrate the potential of overcoming the power of darkness?

Blind salamanders live in darkness and cannot see. If they begin living in light, however, they will produce young which can see.

How does the transparency of glass show the character of a "single eye"?

Do Resource E.

How has the light in the Supreme Court been turned to darkness?

The light of the Supreme Court has dimmed from darkness to great darkness.

When the pilgrims founded the American colonies, they established their laws on the principles of the Bible. In later years and until recent times, the Biblically-based writings of Sir William Blackstone were foundational to all law studies.

Spiritual darkness infiltrated the legal system when cases began to be decided on the basis of precedents rather than Biblical principles. The darkness of bad precedents has resulted in the great darkness of decisions such as Roe vs. Wade, legalizing murder.

How did the worship of the Egyptian god of light affect America's worship of the true God?

Horus was the Egyptian god of light. He was incorrectly called "the great king of gods... and king of the world, who spans the sky."

His eye was praised as "the all-seeing eye of Horus". Horus's mother was called "the queen of heaven."

It is ironic that this symbol should have been placed on U.S. currency which also claims, "In God We Trust."

Do Resource F.

How do abnormal eye conditions illustrate causes of spiritual darkness?

If eye injuries leave scars, the eye's ability to see clearly is diminished.

When offenses are not resolved properly, emotional scars remain, hindering and distorting spiritual vision.

The eyelid protects the eye, but irregularities in the lid can damage the eye and its vision. God charges authorities with the responsibility to protect those under their care.

When leaders who have sin or compromise in their lives continue to teach, those under their authority will be adversely affected.

Sagittal view of the human eye

Do Resource G.

How can an ophthalmologist assess the health of the whole body by simply looking into the eye?

The only place in the body where functioning blood vessels may be viewed is in the eye. An ophthalmologist can see the condition of virtually the whole body by looking at these blood vessels.

Cholesterol or calcium deposits in the blood vessels of the eye indicate the same condition throughout the body.

The results of high blood pressure can be seen in the eye by bulging, pulsating vessels. The effects of diabetes may be observed by counting the blood vessels per unit area in the eye and noting that there are more than normal.
How many of these questions can you answer before studying the resources?

WHAT IS A "SINGLE EYE"?

• Why does changing the word order in a Greek sentence not change its meaning? ..... 1975
• How is a New Englishman's Greek Concordance the most effective way to study Greek words? ..... 1975
• What is the real meaning of a single eye? ..... 1976

WHAT IS AN "EVIL EYE"?

• How does a penurious person experience penury? ..... 1977
• What bird illustrates the opposite of rapaciousness? ..... 1979
• What is duplicity? ..... 1980
• How is collecting wisdom like collecting money? ..... 1982
• How can a collector's instinct benefit others? ..... 1983
• How is an evil eye like a murmuring mouth? ..... 1984

HOW IS GLASS LIKE A "SINGLE EYE"?

• How might our world change if glass ever lost its transparent qualities? ..... 2007
• Why does glass transmit only certain electromagnetic waves? ..... 2009
• How do impurities distort the color of light? ..... 2009
• What makes it possible for radio waves to pass through wood and rock? ..... 2010
• What are poises? ..... 2011

HOW HAVE COURTS DARKENED THE LIGHT?

• What is jurisprudence? ..... 2012
• How is precedent changing our Constitution? ..... 2013
• What is the stare decisis doctrine? ..... 2013
• How does common law relate to Scripture? ..... 2014
• How has the Supreme Court defined religion? ..... 2015
• How does "fairness" damage a law system? ..... 2017

WHAT CAUSES AN EYE TO BE DARKENED?

• How much blood is normally in the cornea of the eye? ..... 2023
• What is aqueous humor? ..... 2025
• What are the zonules of Zinn? ..... 2026
• How is balance maintained in the eye? ..... 2028
• What are floaters? ..... 2029
• What are blind spots? ..... 2031

1974
How does searching for the meaning of “single” reveal the way to confirm truth?

Step One:
Observe the Greek word for single.

Locate the word single in the Greek Interlinear New Testament.

Step Two:
Note the placement of the word for single.

You can learn much by observing a word’s placement in the Greek sentence. In contrast to the English language, Greek words may be placed in any order without changing the meaning of the sentence.

“The man ate the lunch” is a clear statement in English because the subject, verb, and object are in proper order. If this sentence were rearranged, the meaning would be dramatically different.

Can you imagine, “The lunch ate the man”? Yet in Greek, that sentence would mean the very same thing as the previous sentence, regardless of the word order. Because Greek grammar rules provide specific endings based on how the word is used in the sentence, the reader can tell at a glance which word is the subject, the adjective, the object, etc. Placement in the sentence is for emphasis, not for clarification of meaning.

The Greeks looked at the first word or the last word in a clause as being in the position of greatest emphasis. Modifiers of first and last words carried the same emphasis as the word they accompanied.

In this case single accompanies the verb, which is in the position of final emphasis. Thus, the Greek reader would be drawn to the word ἀπλοῦς (hah-PLUCE) as the most important word in this sentence because the verb “to be” was so common.

Step Three:
See how single is used in other contexts.

The word that is translated single is used in other passages in both the Old and New Testaments. Sometimes, it is translated simplicity, liberality, bountifulness, or singleness. Each of these translations provides a potential amplification of the Greek word.

The best resource to check the word single in other contexts is the New Englishman’s Greek Concordance. Whereas Strong’s Concordance lists all of the English uses of single, the Englishman’s lists all of the Greek uses of the word ἀπλοῦς.

Notice that each of these uses refers to the moral application of the word single rather than the physiological application. This moral application is found in Ephesians 6:5 and Colossians 3:22.
THE ENGLISHMAN'S GREEK CONCORDANCE

άπλοτις, haplotes.

Ro. 12: 8. (let him do it) with simplicity;
2Co. 1:12. that in simplicity and godly sincerity
8: 2. unto the riches of their liberality
9:11. in every thing to all bountifulnes,
13. for (your) liberal distribution unto
11: 3. from the simplicity that is in Christ.

Eph. 6: 5. in singleness of your heart, as
Col. 3:22. in singleness of heart, fearing God:

άπλος, haplous.

Mat. 6:22. if therefore thine eye be single,
Lu. 11:34. therefore when thine eye is single,

άπλος, haplós.

Jas. 1: 5. that giveth to all (men) liberally,

STEP FOUR:
Check the definitions of the word single.

Strong's Greek Dictionary defines ἀπλοῦς as "folded together, i.e., single." Obviously to understand the word single, we need a fuller and more precise explanation.

A resource to provide this explanation is a three-volume work by Colin Brown entitled the New International Dictionary of New Testament Theology. Under the heading Simplicity the following explanation is given.

"Haplous is a compound word from ἑ- together, and πελ, to fold. They mean the opposite of dipλous, double. Besides this numerical meaning, there grew up an ethical connotation for the word-group, hence, haplotes came to mean straightness, openness, speaking without a hidden meaning.

"In the LXX [the Septuagint, Greek translation of the Hebrew Old Testament] haplous means single, unambiguous, clear. The wise man who accepts the commandments wholeheartedly, walks haplos (Proverbs 10:8 f.), i.e., his walk has a clear direction, for, being bound to the law he is freed from inner divisions.

"David gave God his . . . gold in singleness of heart . . . with (an) undivided heart . . . with a whole heart (I Chronicles 29:9)."

Based on these four steps, the most accurate definition of the word single is "grasping by faith and with the whole heart God's direction for our lives." It involves integrity, focus, and purity. It is the opposite of what James warns against in chapter 1, verse 8: "A double-minded man is unstable in all his ways."

How do these pictures relate to this definition of having a "single" eye?

The runner has a single focus on the finish line. His desire is to win the race, and to that extent he illustrates the definition. However, he may or may not have proper motives. His motives may be to glorify himself rather than to glorify the Lord. He may also run the race and violate the rules.

Similarly, the policeman has a single focus on his job, but the attitudes, motives, and methods with which he carries out his job will determine whether or not he has a single eye in the Biblical sense of the word.

PROJECT

Many Scriptures confirm the fact that a single eye refers to the moral and spiritual condition of a person rather than just the physical aspects of the person's eye.

Examine each of the following verses, and indicate the type of eye to which the passage refers. Relate each one to the context of Matthew 6:19-24.

- Matthew 13:15
- Matthew 20:33
- Matthew 26:43
- Luke 2:30
- Luke 24:16
- John 12:40
- Romans 11:10
- Ephesians 1:18
- II Peter 2:14

Date completed ___________ Evaluation ___________
HOW CAN A PERSON KNOW WHETHER OR NOT HE HAS AN "EVIL EYE"?

Five times in Scripture God uses the expression "evil eye." These passages identify the scope of what that phrase means.

Five little-known words in the English language give precise expression to the various concepts of the passages describing an "evil eye."

WORDS THAT DEFINE AN "EVIL EYE"

1. □ Penurious
2. □ Rapacious
3. □ Duplicitious
4. □ Avaricious
5. □ Petulant

THE "EVIL EYE" OF PENURIOUSNESS

A certain creditor was alarmed when he heard the news that a man who owed him money had just died. The creditor was not concerned for the grief of the widow or the aching loss felt by the two sons. He focused on only one thought: the money which was owed to him.

As quickly as he could, he left his home and visited the bereaved widow and her two sons. What he saw in their home should have shocked him into compassion, or at least pity.

They were destitute. There was nothing in their house except a little pot of oil. Seeing no furniture or valuables that he could take in payment for the debt, the penurious creditor turned his stingy eyes on the widow's two sons.

The widow cried out in anguish. She knew what he could do legally, and he confirmed her greatest fears. Unless she paid her husband's debt, he would take her two sons to be bondmen until they paid it off.

This account from II Kings 4:1-7 is a striking example of the kinds of circumstances which demand generosity by the Law of God. Notice how lack of generosity in giving to the poor is an example of an "evil eye." (See Deuteronomy 15:7-11.)

Penuriousness Condemned:

God desires that His people be generous to poor neighbors. Laws and statutes were given by God to encourage this generosity. One such law is contained in Deuteronomy 15:1-6.

At the end of every seven years the money which was loaned to the poor must be forgiven. (This requirement did not apply to loans made to foreigners or to wealthy people.)

Notice in the following passage how God refers to stinginess in applying this law with the phrase "an evil eye."

"If there be among you a poor man of one of thy brethren within any of thy gates in thy land which the Lord thy God giveth thee, thou shalt not harden thine heart, nor shut thine hand from thy poor brother:

"But thou shalt open thine hand wide unto him, and shalt surely lend him sufficient for his need, in that which he wanteth.

"Beware that there be not a thought in thy wicked heart, saying, The seventh year, the year of release, is at hand; and thine eye be evil against
thy poor brother, and thou givest him nought; and he cry unto the Lord against thee, and it be sin unto thee.

"Thou shalt surely give him, and thine heart shall not be grieved when thou givest unto him: because that for this thing the Lord thy God shall bless thee in all thy works, and in all that thou puttest thine hand unto.

"For the poor shall never cease out of the land: therefore I command thee, saying, Thou shalt open thine hand wide unto thy brother, to thy poor, and to thy needy, in thy land" (Deuteronomy 15:7-11).

Definition of Penurious:

The primary definition of penury is "extreme want or poverty; barrenness, insufficiency." However, the primary definition of its adjective form, penurious, is "miserly, stingy." The relationship of these two definitions is significant. A penurious person will experience penury.

Penurious comes from the medieval Latin word penurious and means "excessively saving or sparing in the use of money."

Application Project:

When the offering plate was passed in church, the penurious businessman put in a dollar.

While visiting a sick and destitute widow, the penurious neighbor offered the wish, "May God meet all your needs."

Use this word in two more statements which describe experiences in your own life.

• "I acted penuriously when _______________________

__________________________

__________________________

__________________________

__________________________

• " _______________________

__________________________

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__________________________

The Opposite of Penuriousness:

During the reign of Queen Elizabeth, Sir Philip Sidney lay on the field of battle in great pain and a raging fever. He called for a cup of water, and with great difficulty the cup of water was brought to him.

He was about to drink it when he noticed the longing gaze of a wounded comrade who was dying of thirst. Sir Philip Sidney stretched out his hand and gave the water to the dying man, saying: "Soldier, thy need is greater than mine."

The generous Sir Philip Sidney, wounded and thirsty, demonstrated the opposite of penuriousness by giving the precious water to a dying soldier.

2 THE "EVIL EYE" OF RAPACIOUSNESS

Ben-hadad, the King of Syria, marched his huge army to the capital city of Israel. Thousands of Israelites found safety and shelter behind the walls of the city, but soon they faced an even greater threat—starvation.

Food became so scarce that a donkey's head was sold for fifty dollars and a pint of doves' dung was sold for three dollars.

One day the King of Israel was walking along the top of the wall. He passed two women, and one of them cried out to him, "Help, my lord, O King." The King asked her what her problem was, and she answered, "... This woman said unto me, Give thy son, that we may eat him to-day, and we will eat my son to-morrow. So we boiled my son, and did eat him: and I said unto her on the next day, Give thy son, that we may eat him: and she hath hid her son" (II Kings 6:28-29).

When the King heard these words, he ripped his clothes in grief. (See II Kings 6:24-30.)
The King of Israel listened to the gruesome request of the rapacious mother.

Rapaciousness Condemned:

The siege described above was predicted many years earlier by God. He warned His people that if they rejected His commandments, “a nation of fierce countenance” would besiege their cities, and they would become so desperate they would eat their own children.

Notice how this response to extreme adversity is defined by God as the result of an “evil eye.”

“Because thou servedst not the Lord thy God with joyfulness, and with gladness of heart, for the abundance of all things . . . The Lord shall bring a nation against thee from far. . . .

“And thou shalt eat the fruit of thine own body, the flesh of thy sons and of thy daughters, which the Lord thy God hath given thee . . .

“So that the man that is tender among you, and very delicate, his eye shall be evil toward his brother, and toward the wife of his bosom, and toward the remnant of his children which he shall leave:

“So that he will not give to any of them of the flesh of his children whom he shall eat: because he hath nothing left him in the siege, and in the straitness, wherewith thine enemies shall distress thee in all thy gates.

“The tender and delicate woman among you, which would not adventure to set the sole of her foot upon the ground for delicateness and tenderness, her eye shall be evil toward the husband of her bosom, and toward her son, and toward her daughter,

“And toward her young one that cometh out from between her feet, and toward her children which she shall bear: for she shall eat them for want of all things secretly in the siege and straitness, wherewith thine enemy shall distress thee in thy gates” (Deuteronomy 28:47–57).

Definition of Rapaciousness:

Rapacious comes from the Latin word rapax, which means “to seize.” It has the same root as the English word rapid and means “to take by force, to plunder, to be ravenous.”

One definition of rapacious is “subsisting on live prey.”

Application Project:

It has long been understood that one justifiable reason for an abortion is to save the life of the mother. Discuss the implications of the previous account to this assumption.

During the siege, the mother would die if she did not eat her own child. Is this situation analogous to an extreme emergency in which a choice must be made between the life of the mother and the life of the child? Compare your answer to the following passage.

“Behold, the third time I am ready to come to you; and I will not be burdensome to you: for I seek not yours, but you: for the children ought not to lay up for the parents, but the parents for the children.

“And I will very gladly spend and be spent for you; though the more abundantly I love you, the less I be loved” (II Corinthians 12:14–15).

The Opposite of Rapaciousness:

A flock of Canadian geese built their nests and laid their eggs in the spring. Then suddenly,
an unseasonable snowstorm came howling in from the north.

The snow continued to fall until it reached the incredible depth of three feet. At any time, the geese could have flown away. Instead, they chose to stay on their nests and to protect the young that were developing within the eggs.

Several days later, the sun came out and the snow melted away. An awesome sight was revealed: scores of dead geese still on their nests. They had laid down their lives for their young.

The self-sacrifice which Canadian geese demonstrate for their young is passed on from generation to generation.

Also consider the events when Jacob’s beloved wife Rachel was in hard labor. It finally came to the point of death. If Rachel had destroyed the child to save her own life, the Apostle Paul never would have been born because he was a descendant of the child she bore—Benjamin.

3 THE “EVIL EYE” OF DUPlicitY

A prince planned a great feast. The guest list included all of the important dignitaries in the land. However, a special invitation was given to one of the king’s sons.

The king’s son accepted the invitation, and when he arrived at the banquet, he began to indulge in all the delicacies and wine which were lavishly provided. Soon he became frivolous and silly with the wine, and at that point the signal was given by the prince who had invited him.

An armed servant came over and thrust a knife into the king’s son and killed him. The real purpose of the dinner had been accomplished, for this duplicitous prince had planned for two years to gain revenge on the king’s son, who was his half-brother and who had defiled his sister. (See II Samuel 13:1–29.)

Duplicity Condemned:

Years after this incident, another son of that king wrote the following instructions, perhaps based on the incident above.

“When thou sittest to eat with a ruler, consider diligently what is before thee:

“And put a knife to thy throat, if thou be a man given to appetite.

“Be not desirous of his dainties: for they are deceitful meat.

“Labour not to be rich: cease from thine own wisdom.

“Wilt thou set thine eyes upon that which is not? for riches certainly make themselves wings; they fly away as an eagle toward heaven.

“Eat thou not the bread of him that hath an evil eye, neither desire his dainty meats:

“For as he thinketh in his heart, so is he: Eat and drink, saith he to thee; but his heart is not with thee” (Proverbs 23:1–7).

Definition of Duplicity:

The word duplicity comes from the Latin word duplex. From it we also get the words duplicate and double. A person who has a “hidden motive” for his own personal gain is guilty of duplicity.

Duplicity is deliberate deceiversness in behavior or speech; it is double-dealing. Duplicity is the act or practice of exhibiting different or contrary sentiments at different times about the same things. It is the act of concealing one’s real opinions for the purpose of misleading persons in conversation. It is deceit and dissimulation.

The Greek definition of dissimulation is “play-actor; one who is a hypocrite, saying one thing but meaning another.”
Application Project:

We are commanded by God to “let love be without dissimulation. Abhor that which is evil; cleave to that which is good” (Romans 12:9).

None of us is exempt from the possibility of duplicity. Even the Apostle Peter carried out duplicity when he ate with the Gentiles until the Jews arrived and then refused to eat with the Gentiles because he knew the Jews would expect him not to do so.

Read Paul’s condemnation of Peter’s duplicity in Galatians 2:11–14, and notice how many people were affected by it.

Discuss how the following people are guilty of duplicity:

• A church board who invites a carnal but wealthy businessman to be a member of the board, not because of his spiritual counsel, but because the board hopes that he will contribute money to the church

• A couple who invites a dinner guest, not because they are interested in the guest, but because he is good friends with an important person they want to meet

List two more illustrations of duplicity from your own experience.

The Opposite of Duplicity:

Savage Indian raids and massacres among colonists in early America were common occurrences, especially if a leader in a colony acted in duplicity with the Indian chief or his people. Sometimes colonists would meet with the Indians and make treaties which said one thing when the treaty-makers meant something else.

The expression “speaking with a forked tongue” would be an expression of such duplicity. There was one colonial leader, however, who spoke with the Indians in complete sincerity.

In 1681, King Charles II granted William Penn a great tract of land now known as Pennsylvania. William Penn used the land to establish a “holy experiment.” To the Indians he wrote, “I have great love and regard toward you.”

In 1682, Penn sailed up the Delaware River and saw his colony for the first time. Later that year, he made his first treaty with the Indians. His dealings with the Indians were so just that the Indians never attacked the colony.

4 THE “E V I L EYE” OF AVARICIOUSNESS

It was a time of national urgency. A special charter had been granted by the conquering king allowing his subjects in a distant city to obtain timber from his forests in order to rebuild their walls and gates which had been burned and broken down.

The people worked hard; however, the noblemen and rulers who lived in that city did not participate in the huge task of rebuilding. Instead, they saw an opportunity to profit from what was going on without doing any work.

They freely loaned money to the workers who needed to buy food for their families so they could continue working. Before long, however, the workers had used up all their assets, and the creditors began to take their children as bond servants.

The people cried out in great distress, and their leader soundly rebuked the noblemen and rulers.

“. . . It is not good that ye do: ought ye not to walk in the fear of our God because of the reproach of the heathen our enemies?”

“I likewise, and my brethren, and my servants, might exact of them money and corn: I pray you, let us leave off this usury. Restore, I pray you, to them,
even this day, their lands, their vineyards, their oliveyards, and their houses, also the hundredth part of the money, and of the corn, the wine, and the oil, that ye exact of them” (Nehemiah 5:9–11).

Nehemiah was able to convince the noblemen to stop their avariciousness because of his generosity.

The noblemen and rulers agreed with the great assembly which had been gathered against them and promised to restore what they had taken and to require nothing of them.

**Avariciousness Condemned:**

Not only did Nehemiah condemn the noblemen and rulers of Jerusalem for enriching themselves at the expense of their brethren, but God condemns even the motive behind this action.

“He that hath an evil eye, and considereth not that poverty shall come upon him” (Proverbs 28:22).

**Definition of Avarice:**

Avarice is an extreme desire to amass wealth. It comes from the Latin word *avarus*, which means “greedy.” It refers to a lust for money, or an inordinate drive for wealth.

A person who has *avarice* is willing to take advantage of people and situations for his own gain and their loss. Where there is an even exchange of services or goods with money, *avarice* is not present even though profit is involved.

**Application Project:**

Most of us have what could be called a “collector’s instinct.” We tend to collect things which are of interest or value to us. Our instinct to gather things may be channeled to collecting stamps, shoes, books, or other items.

God wants us to take this same “collector’s instinct” and use it to gather that which has eternal value, such as wisdom and truth.

In the following passage, notice how God transfers our natural motivation to collect money to our need to collect wisdom.

“Then shalt thou understand the fear of the Lord, and find the knowledge of God” (Proverbs 2:1–5).

Take the natural motivation which you have for collecting money and apply it to the ambition of collecting wisdom.

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<thead>
<tr>
<th><strong>MONEY</strong></th>
<th><strong>WISDOM</strong></th>
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<tbody>
<tr>
<td>1. Seeing the value of money</td>
<td>1. Seeing the value of wisdom</td>
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<td>2. Working hard to obtain money</td>
<td>2. Working hard to obtain wisdom</td>
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<td>3. Putting money in a safe place</td>
<td>3. Putting wisdom in a safe place</td>
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<td>4. Trading things to gain more money</td>
<td>4. Trading things to gain more wisdom</td>
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<tr>
<td>5. Investing savings to make more money</td>
<td>5. Sharing wisdom to gain more wisdom</td>
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Think of more ways you can relate the motivation for collecting money to the motivation for collecting wisdom.
The Opposite of Avariciousness:

John Chapman is an American folk hero whose story is loved by children even today—over a hundred years after his death.

This pioneer once owned a home at Pittsburgh Landing, but gave it to a poor widow with several children. For the next forty years he traveled across the sparsely settled parts of Ohio, Indiana, and Illinois.

As he journeyed across this territory practicing herbal medicine, he gave whatever money he received to the poor. At each cabin and farm he visited, he left a small gift which many would enjoy for generations.

After digging a small hole in the ground, Mr. Chapman would reach into his old, battered sack and pull out a small, brown seed. Burying it in the little hole, he would bow his head and ask God to make it grow.

Thus, as “Johnny Appleseed” sowed seeds of kindness, he planted apple trees across a hundred thousand acres of the Ohio Valley before his death in 1845.

As pioneers traveled west, they enjoyed the fruits of Johnny Appleseed’s ministry. His “collector’s instinct” also greatly benefited the farmlands and economy of northern Ohio.

THE “EVIL EYE” OF PETULANCE

It was harvest time, and the owner of the farm went into town early in the morning and hired migrant workers. He agreed with them on the pay they would receive for a day’s work, and they began their task.

After several hours, the land owner realized that the workers would not be able to finish the job, so he returned to town to hire more help. He told the new workers that he would pay them what was just. They agreed to this, and went to work.

Three more times that day the owner went into town and hired more laborers, assuring them that he would pay them what was right.

In the evening, all the laborers gathered for their pay. Those who had worked the least were paid first. They received a full day’s wage. The second, third, and fourth groups were also given a full day’s pay. Finally, the laborers that had worked all day came up to get their wages. They had observed what the other laborers earned and, therefore, they assumed they would be getting more because they had worked longer.

However, they received only the wage which they had agreed upon in the morning. Immediately, they murmured and complained: “… These last have wrought but one hour, and thou hast made them equal unto us, which have borne the burden and heat of the day.” (See Matthew 20:1–12.)

Their response to the one who hired them can be described as petulant, and it was condemned by God as one aspect of an “evil eye.”

Petulance Condemned:

When the farm owner observed the angry reaction of the laborers, he firmly but gently said to each one, “… Friend, I do thee no wrong: didst not thou agree with me for a penny? Take that thine is, and go thy way: I will give unto this last, even as unto thee. Is it not lawful for me to do what I will with mine own? Is thine eye evil, because I am good?” (Matthew 20:13–15).

The goodness and justice of the farm owner is seen by question and answer in this account. Before hiring the last group of workers, the farm owner asked them, “… Why stand ye here all the day idle?” They responded, “… Because no man hath hired us…” (verses 6–7).

God in His wisdom adds this factor to the equation of the story so we can understand why the owner was just in giving every man a day’s wage.
Each man had a family to feed and needed a day's wage. Each man waited in town all day long for someone to hire him. Once he was hired, it became the responsibility of the one for whom he worked to pay him not only for his hours of labor but also for his hours of availability.

**Definition of Petulance:**

To be petulant is to be unreasonable, irritable, or ill-tempered. A petulant person is touchy, oversensitive, fretful, and peevish. The word comes from the old French petulant, which means "saucy or pert."

Petulance is often associated with youth as in the phrase "the pride and petulance of youth." It denotes immaturity, impatience, crabyness, and a sour disposition.

The Latin derivative of petulance is petulantis, which means "impudent." This Latin word itself may have come from peto, meaning both "to attack" and "to desire." Thus, a petulant person is contentious, grumpy, sulky, cantankerous, complaining, cross, sullen, and quarrelsome.

**Application Project:**

Based on the definition of petulance, write a short story about this picture. Use the word petulant and as many of its synonyms as you can.

Recall the most recent incident which caused you to be irritable and reactionary. Give a written report of it using the word petulant. As in the story of the workers, list factors in your situation that, had you known them at the time of the incident, would have kept you from becoming irritable.

**The Opposite of Petulance:**

Perhaps no Christian in the eighteenth century was attacked, ridiculed, and falsely accused more than John Wesley. Some historians go so far as to say that the fiery denunciations against John Wesley and the Methodists have never been surpassed in the history of England.

Yet John Wesley's response to it all was incredible calmness and amazing courage. John himself wrote, "We were everywhere represented as mad dogs, and treated accordingly. In sermons, newspapers, and pamphlets of all kinds we were painted as unheard-of monsters. But this moved us not; we went on testifying salvation by faith, both to small and great, and not counting our lives dear unto ourselves, so we might finish our course with peace."

A mob at Wednesbury, England shouted and hurled bottles, stones, and insults during John Wesley's message.

The crowds to which John Wesley preached often numbered between twenty and forty thousand, but the meetings were often interrupted by violent mobs. While preaching at Moorsfield, a mob met him, broke down the table on which he stood, and in various ways abused and insulted him.

Undaunted, he climbed up on a stone wall nearby and brought the mobs to silence with his earnest pleas. The entire audience was captivated by this man with a "single eye" whose life was filled with light and had no hint of petulance.

**Summary Project:**

For each word listed below, indicate one insight or decision you have made from your study that will help you avoid having an "evil eye."

1. Penuriosity: ________________________
2. Rapaciousness: _____________________
3. Duplicity: _________________________
4. Avariciousness: ____________________
5. Petulance: _________________________

Date completed ____________________ Evaluation __________
HOW DID THE “SINGLE EYE” OF ONE PERSON BRING SPIRITUAL LIGHT TO MILLIONS OF PEOPLE?

The entire direction of Amy Carmichael’s life and her discernment of what was valuable were shaped when she responded to a need as a seventeen-year-old girl.

It was a cold, gray Sunday afternoon in Belfast, Ireland, in 1884. The Carmichael family was walking home from church. Seventeen-year-old Amy was probably the first to notice the old woman coming down the street toward them. Dressed in filthy, tattered rags, the woman was struggling to carry a heavy bundle.

Amy and two of her brothers turned around to walk with her. One of them took the woman’s burden as the others helped her along by the arms. Years later, Amy could still remember how embarrassed she felt as all the other respectable churchgoers stared at them.

As they plodded along with the wet wind in their faces, Amy seemed to hear a Voice speaking to her: “...Gold, silver, precious stones, wood, hay, stubble; Every man’s work shall be made manifest...” (1 Corinthians 3:12–13). She turned to see who had spoken and saw only the muddy street and the surprised looks of those who were watching them help the poor old woman.

It was a decisive moment. Something had happened that changed Amy’s values. “Nothing,” she wrote later, “could ever matter again but the things that were eternal.”

That change of values was what allowed Amy Carmichael to see with a “single eye” and eventually led her to spend more than half a century in a remote corner of South India. There she proclaimed the Gospel from village to village until the Lord opened up a special ministry with children. She continues to minister today to Christians around the world through the nearly forty books she wrote while on the mission field.

After that Sunday in Belfast, Miss Carmichael’s life became a living demonstration of Godly generosity. She had a keen sense of the fact that everything she had belonged to God, and she remained committed to using it for His purposes.

Through the trials and joys of life she learned that this kind of generosity could be developed only by living out Christ’s words: “...Except a com of wheat fall into the ground and die, it abideth alone: but if it die, it bringeth forth much fruit. He that loveth his life shall lose it; and he that hateth his life in this world shall keep it unto life eternal” (John 12:24–25).

THE SEED OF GENEROSITY GERMINATES THROUGH DEATH TO SELF.

Born in 1867, Amy Carmichael spent her early years in the village of Millisle, on the northern coast of Ireland.
As the operator of the town mill, her father was an important man. He gave large gifts to the Presbyterian church where the family worshiped every week. Each morning he called his family to prayer. Amy never forgot the sound of his voice reading the Scripture, a "solemn sound like the rise and fall of the waves on the shore."

Like most children in that Victorian era, Amy and her brothers and sisters lived under strict discipline. Punishment for wrongdoing was swift and sure, but that did not stop Amy from misbehaving from time to time. Once she and two of her brothers climbed through a skylight onto the roof, where they could see the stony beach and the blue waves of the Irish Sea. The children had a grand time sliding down the slate tiles and marching along in the lead gutters until Amy looked down into the shocked faces of their parents.

A baby-sitter once told the children not to swallow plum seeds lest a plum tree grow right out of their heads! Fascinated with the thought of having her own orchard so conveniently located, Amy proceeded to down exactly a dozen seeds. With twelve trees, she thought, she would have enough plums for herself and some to give away as well.

Educated at home for the first few years, Amy was sent away to boarding school when she was twelve. Not only did she miss her family, but she also found that the lessons were not as pleasant as they had been at home.

The most important event during the three years she was away at school occurred near the end of that time. She went to an evangelistic meeting in a nearby town. Writing of the experience years later, she could not recall anything the preacher had said that night, but she remembered clearly that after the sermon they had sung, "Jesus loves me, this I know, for the Bible tells me so."

In those quiet moments, the words of that familiar song helped her realize that something was missing in her life. Through all of her fifteen years she had been aware of the love of Jesus, but she had never invited Him into her heart.

"In His great mercy," she wrote, "the Good Shepherd answered the prayers of my mother and father and many other loving ones, and drew me, even me, into His fold."

About this time the family moved to Belfast, and because of financial difficulties, Amy and her brothers were taken out of boarding school. For a while Amy continued receiving instruction in music and art. Then in 1885 her father died suddenly of pneumonia at the age of fifty-four.

His death must have been a tremendous shock to one as sensitive as Amy, but she left no record of her feelings or struggles during this period. She threw herself into helping her mother with the younger children. She became like a second mother to them, even teaching her two sisters at home while they were too ill to attend school.

Amy's compassion, however, was not limited to her own family. She began to hold meetings in their home for children from the neighborhood. She taught a group of boys in night school, started a weekly prayer meeting for schoolgirls, and also worked at the YWCA.

Her heart especially went out to the girls who worked in the mills. They were called "shawlies" because they were so poor they wore shawls on their heads instead of hats. Amy had a class for them at
her church. Many of the church members were shocked to see people of that social stratum in their church building and even more shocked that Mrs. Carmichael would allow her daughter to go into the slums where they lived in order to visit them.

All these activities continued for over a year, but somehow Amy felt she was still building with just "wood, hay, and stubble." She was busy, but not really giving in the way she wanted to give. Something was missing.

In September of 1886, Amy went to visit friends in Scotland. While there, she had the opportunity to attend a Keswick (KEZ-ick) convention in Glasgow. Keswick, a town in England’s Lake District, had for several years been the site of week-long tent meetings. Christians would come from many miles around to hear Godly men and women present the challenge of living a Spirit-filled life. The teaching spread, and similar meetings were held in other places.

Amy had heard about the Keswick emphasis on holiness and "the higher life." She came to the Glasgow meeting "half hoping, half fearing" that there would be something for her. The auditorium that morning was filled with "a sort of grey mist, very dull and chilly." After sitting through two long messages, all Amy felt was that the fog in the hall was soaking into her soul.

Then, as before on the street in Belfast, the Lord used the familiar words of Scripture to grip Amy’s heart. The chairman of the meeting began the closing prayer with words from Jude 24: "O Lord, we know that Thou art able to keep us from falling."

The words blazed their way into Amy’s soul as if they were on fire. They kept on burning even as Amy and her friends left the building and went to a restaurant for lunch. Someone commented on how bad the food was, but Amy’s only thought was, "Whatever does it matter about the mutton chops? The Lord is able to keep us from falling!"

That day marked the beginning of a new level of self-denial in Amy Carmichael’s life. Upon Amy’s return to Ireland, her mother took her shopping. Now that the long period of mourning for her father was over, her mother said it was time to buy some pretty dresses, including an evening gown for parties.

As they sat waiting for the clerk in the first shop to bring out the goods to show them, Amy realized she could no longer wear those kinds of clothes or participate in those kinds of activities. Since she had not shared with her mother what had happened in Glasgow, Mrs. Carmichael was very surprised when Amy told her what she had decided about the dresses.

With great embarrassment Mrs. Carmichael apologetically told the shopkeeper they would not need anything after all, and they quickly left the store. The young lady who had always been fond of beautiful things was beginning to see what it meant to be dead to the world.

The following September a Keswick meeting was held in Belfast. Hudson Taylor was one of the main speakers. He addressed the convention about the need for missionaries, saying that every hour four thousand Chinese "pass through the gates of death into the darkness beyond—Savior-less, hopeless."

Amy wrote to her family about his appeal: "Does it not stir up our hearts to go forth and help them, does it not make us long to leave our luxury, our exceeding abundant light, and go to them that sit in darkness?"

At this time Amy began telling her brothers that she would never marry. It is doubtful that they took their twenty-year-old sister seriously, but she was very intent upon giving her affections to the Lord and dying to self. She made it her goal, in the words of one of the Keswick leaders, "to be like Christ, to displace self from the inner throne, and to enthrone Him, to make not the slightest compromise with the smallest sin."

Amy was invited to attend the 1888 convention in the big tent at Keswick. Before the meeting she was meditating on the question of what happens to those who have never heard the Gospel. She wanted very much to do something to help reach those poor people. Her prayer was that God would give her a peace about it, but it had not yet occurred to her that God might call her to go overseas herself. The convention that year was an unforgettable time of spiritual renewal for her.

During these years Amy’s evangelistic work with the mill girls had begun to grow. Soon they outgrew the room the church was allowing them to use. They needed their own building—one that would seat five hundred people. The cost would be £500 (five hundred pounds).
Since her own family was then going through a rough time financially, Amy had no idea where the money would come from. As she thought about asking people to donate to the cause, an experience from her childhood motivated her to seek the Lord's way of obtaining funds.

When she was about ten, her grandmother had sent her out to collect funds for some charity. She remembered how stunned she was when a man who had just built himself a fine new house refused to give anything. Her question then was whether it would be wiser to ask God to put the desire to give within the hearts of those who love Him rather than to ask for help from people who do not really love God. So that is what Amy and the mill girls did. They prayed for the £500 and did not approach anyone about giving.

However, Amy knew from another childhood experience that the answer to her prayer might not be "yes." One night she had asked God to change her brown eyes to blue. When she awoke the next morning, she ran eagerly to the mirror, only to find the same brown eyes staring back at her. At first she was disappointed because she thought God had not answered her prayer. Then she realized that "no" or "wait" could be an answer just as much as "yes."

In the case of the building for the mill girls, God's affirmative reply was not very long in coming. One day Amy's mother asked her to go calling with her. Amy hated making those formal visits to stuffy drawing rooms, sipping tea and talking about things that did not really matter.

However, in deference to her mother, Amy agreed to go. Several of the people they went to see were out, so they finally ended up visiting with some friends of Mrs. Carmichael who were very committed Christians. They had heard about Amy's work and asked her many questions. She talked about the building, but not the need for funds.

The friends said they knew a woman who might be interested in donating to such a worthwhile ministry. Amy did not think much more about it until a few days later when she was invited to lunch by the woman they had mentioned. Her name was Kate Mitchell. Miss Mitchell wanted to know all about the shawlies, and Amy gladly answered her questions. Then a few days later a note came from Miss Mitchell saying she wanted to donate the entire amount for the new building!

Now Amy faced the problem of where to locate the building. To be most effective it needed to be placed in the factory district close to where the girls worked and lived, but land prices were very high in that part of the city. So they prayed again.

Someone suggested that Amy should go to the owner of the largest mill to find out how much he would charge for a piece of his land. Amy felt shy and intimidated talking to this important man in his office, but God had prepared the way. The owner immediately said they could have the lot they wanted for a ridiculously low rent—the equivalent of about a dollar a year. Within a few months the building was completed.

At the dedication service a long banner hung above the platform. It said: "... That in all things he might have the preeminence" (Colossians 1:18). It was truly the desire of Amy's heart. That night she sat not on the platform but in the middle of the crowded auditorium.

During the first few weeks following the dedication, evangelistic services were held in the hall by two students of D.L. Moody. People came to the Lord each night. Then something happened. The power was gone; no one was responding. As Amy prayed about it, she felt convicted that it was because of her.

She thought back to a night when she and some others had spent an hour after the service...
laughing and joking. She realized that their levity had grieved the Spirit—not that laughter was wrong, but it had been the wrong time. She immediately confessed her sin and asked forgiveness, and the Lord blessed the meetings once again.

As the work grew, Amy needed others to help. In choosing workers she followed a Scriptural principle the Lord had revealed to her. Ezra refused to allow the inhabitants of the land to help in the rebuilding of the Temple because they were not of the Lord’s chosen people. (See Ezra 4.)

Thus, Amy refused offers of help from any who were not in complete agreement with her desire to win the mill girls to Christ. She prayed for workers who would build only with “gold, silver, and precious stones.” This decision led not to a “holier-than-thou” attitude, but rather to a humble waiting on the Lord as she had done in the matter of funds.

God honored her commitment by supplying both finances and laborers, and the work continued to prosper. When the Carmichael family moved to Manchester, England, a few months later, Miss Mitchell took over the ministry to the mill girls. It was one of the joys of Amy’s life that sixty years later the hall was still being used to reach people for the Lord.

These two principles (praying for money without telling anyone else of the need and expecting workers to have a high level of commitment) were evidence of Amy’s dying to self at this point in her life. They would also play a significant part in the ministry she would later establish in India.

In Manchester Amy began a similar work with factory girls and would likely have continued in it for many years except that poor health forced her to give it up. It soon became apparent, however, that the Lord had another ministry for her.

Mr. Robert Wilson, one of the Keswick leaders, had become a close friend of the Carmichael family. For several years various ones of the children had visited him at his home, Broughton Grange. An elderly widower, Mr. Wilson was especially fond of Amy, perhaps because his only daughter had died when she was just Amy’s age.

As time went by, Mr. Wilson began to treat Amy more and more like his own daughter. Finally he asked Mrs. Carmichael if Amy could come live at Broughton Grange to take care of him. Mrs. Carmichael agreed, and Amy moved there in 1890.

Living in Mr. Wilson’s home was not just a job in which she served as housekeeper and companion, or merely a ministry in which she took care of an old man. It was a spiritual relationship. Amy came to regard him as her “second father,” and she learned a great deal from him about the Lord and His Word.

This photograph was taken of Amy at Broughton Grange, the home of Mr. Wilson, in 1892. She was twenty-four years old at this time.

Amy had assumed she would stay on at Broughton Grange until Mr. Wilson died, but a snowy Wednesday evening in January of 1892 changed all that. A new dimension of self-denial burst upon her consciousness. She later said, “With all his might the devil sought to hold me back from an obedience which was to cost so much.”

A few days before, she had been thinking again about “those dying in the dark—50,000 of them every day, while we at home live in the midst of blazing light . . . .” She had written down four reasons why she felt it was God’s will for her to stay in Britain.

They were not selfish reasons. First on the list was her mother. Mr. Wilson also needed her. Third was the idea that by staying she might make it easier for those who heard God’s call to go. Finally, she was concerned about her health.

Then that Wednesday she had “a good talk” with Mr. Wilson. Afterwards she went to her room to pray. As she asked the Lord what it all meant and
what He wanted her to do, she heard Him clearly say, "Go ye."

In a letter to her mother two days later she wrote: "... Through all the keen, sharp pain which has come since Wednesday, the certainty that it was His voice I heard has never wavered; though all my heart has shrunk from what it means, though I seem torn in two, and just feel one big ache all over, yet the certainty is there—He said to me 'Go.' Oh, nothing but that sure word, His word, could make it possible to do it, for until He spoke, and I answered, 'Yes, Lord,' I never knew what it would cost.'"

The two who would miss Amy the most, Mr. Wilson and Mrs. Carmichael, were the most supportive of her desire to answer the Lord's call, but many others, including Mr. Wilson's relatives, Amy's aunts, and even some of the Keswick leaders, were not as understanding.

Amy realized then that she had hardly ever been persecuted for His Name's sake. She wrote: "Think of being the follower of a Saviour Who was despised and rejected, and yet wanting to escape being misunderstood and misjudged."

She began to realize this was part of dying to self. She wrote in one of her frequent letters to her mother: "Oh that we may die, not in mere hymn and prayer, but in deed and in truth, to ourselves, to our self-life and self-love. I never knew what it meant before—dead to all one's natural earthy plans and hopes, dead to all voices, however dear, which would deafen our ear to His—alive unto God."

Amy's call was not to any specific mission field. She considered Africa and China. For a time it seemed that the island of Ceylon (now Sri Lanka) was where the Lord was leading, but then her thoughts kept coming back to China and Hudson Taylor's plea. Then she met a Mrs. Stewart, a missionary to China, who was scheduled to return there in the fall. Amy made plans to accompany her, presumably under the Church of England's Zenana Missionary Society.

When it developed that Mrs. Stewart would not be able to sail as planned, Amy took it as the Lord's direction not to go to Fukien (a southeastern province of China). This was indeed providential, for just three years later the Stewarts and several single women missionaries were murdered there. Had Amy gone with them, she almost certainly would have become a martyr, too.

In July of 1892 Amy accompanied Mr. Wilson to the annual Keswick convention, where she was chosen by the missions committee to be the first Keswick missionary sent abroad. Within two weeks she had applied to the China Inland Mission. Shortly after that, Mr. Wilson escorted her to London, where she was to complete the application process.

Within a few days she had completed her shopping and packing and was all ready to go, but the CIM doctor determined that Amy's health was not good enough for her to go to China. So back to Broughton Grange she went.

Old Mr. Wilson was delighted to have her with him again. For her part Amy found it easy enough to settle back into the comfortable routines of her life there. The "Go ye..." she had heard from the Lord was just as strong as before, but so were her feelings for Mr. Wilson. Yet the words of Jesus were never far from her thoughts: "He that loveth father or mother more than me is not worthy of me..." (Matthew 10:37). Amy knew that in spite of what the doctor had said, she still had to go.

As January of 1893 came and with it the anniversary of her call to missions, Amy began to think Japan was the field God had in mind for her. Mr. Wilson knew a missionary there named Barclay Buxton, who was the leader of a team of young missionaries. Mr. Wilson wrote to him, asking if Amy might join the group.

Both Amy and Mr. Wilson were so convinced that this was the way God was leading that Amy made plans to sail for the Orient in March without waiting for Mr. Buxton's answer. She was to travel with three CIM missionaries to Shanghai, where she would await his reply before continuing on to Japan.

The reality of dying to self began to hit Amy full force as she said good-bye to her mother in Manchester and then to her beloved "second father" at the dock in Tilbury. A few days before, Amy had written:

As seeing Him who is invisible
O small shall seem all sacrifice
And pain and loss,
When God shall wipe the weeping eyes,
For suffering give the Victor's Prize,
The Crown for Cross.

The sacrifice did not seem small that day as the ship pulled slowly away from the dock and the old, wrinkled face faded into the distance. Amy had peace in her soul, but her heart was breaking. Even fifty years later she could still feel the pain when she thought of that time. She told a friend: "The night I sailed for China... my life, on the human side, was
broken, and it was never mended again. But He has been enough.” By keeping her eyes focused on the Lord, she was able to continue.

2 GODLY GENEROSITY GROWS BY BEING ROOTED IN THE SOIL OF LOVE.

The voyage took several weeks, but Amy did not give in to the temptation to relax and play games on shipboard. She asked the Lord to give her opportunities to witness to crew members and other passengers. Thus, it was not long until the captain himself had come to Christ.

In spite of being quite seasick, Amy also led a Bible study below the deck each morning and helped with the Sunday services.

On April 14, 1893, Amy wrote: “Arrived safely at Shanghai. ‘...So he bringeth them unto their desired haven’ (Psalm 107:30). Found letters welcoming me to Japan. ‘...He goeth before...’ (Matthew 28:7).”

After only a short stay, Amy embarked for Shimonoseki, Japan. Her ship arrived just as a typhoon was leaving. The sea was so rough, in fact, that the ship could not dock. The passengers were put on a tiny tugboat which was tossed like a cork on the waves until it finally deposited them on the shore.

A missionary was supposed to have met her ship, but as she sat there with all her baggage in the midst of the pouring rain, there was not a European face to be seen among the crowd of shouting, waving Japanese.

The people were friendly enough, but no one could understand a word she said, nor could she understand anything they were trying to tell her. Many a new missionary would have been frustrated or even angered by such a situation, but not Amy Carmichael. Undaunted, she just laughed and laughed until her sides hurt.

Calling it the funniest of all funny experiences, she wrote: “All this was part of the going forth unto a land I knew not, and everything was just right, and if things went wrong it was so much the more fun. I knew they would come right in the end”—and they did. Eventually Amy was taken to a hotel, where she “sat down tranquilly on the mats and waited to see what the angels would do.”

The angels did not let her down, for after a while someone came and got her. She bounced along the narrow streets in a rickshaw and was deposited on the doorstep of an American businessman. The man directed her to the home of two American missionary ladies, where she was able to stay for a few days until the lady Mr. Buxton had sent to meet her arrived.

Amy rode through the streets of Shimonoseki in a rickshaw like this, more properly called a “jinrikisha.”

One morning when she went for a walk on the beach with one of her Shimonoseki hostesses, the conversation turned to the matter of sour relationships among missionaries. Amy could hardly believe the older missionary’s words and said so.

Now it was the missionary’s turn to be surprised. “You don’t mean to say,” she asked Amy, “you think all missionaries love one another?” That was exactly what Amy had thought. She had never
dreamed it might be otherwise. After all, she thought, the Bible says, “…Love one another with a pure heart fervently” (I Peter 1:22). “Is such a life of love lived nowhere?” she wondered.

Near the end of her life, Amy wrote of that significant day, “And I did earnestly ask for the love about which our Lord spoke on the evening before He suffered. That evening so long ago in Jerusalem, and yet so present with us now, and that morning fifty-six years ago by the shore of Japan, are forever linked together in my mind.”

That prayer for love was most abundantly answered in the unique mission organization she later founded in India, but it was also answered in her evangelistic zeal for the Japanese. Though Amy spent little more than a year in Japan, love led her to give the gift of the Gospel to hundreds.

One of the first indications of the depth of her love for the people of Japan was her willingness to adopt their ways. Her first step was to start wearing Japanese clothes on Sundays. The other missionaries thought this was a good idea, and they soon followed her lead.

Then one cold day Amy and Misaki-san, her interpreter and language teacher, were witnessing to an old woman, who was quite eager to listen even though she had never heard the Gospel before. Just as the woman seemed to be ready to accept the Lord, she noticed the fur gloves Amy was wearing.

“What are these?” she wanted to know, reaching out to touch them. Amy later declared, “I cannot remember whether or not we were able to recall her to what mattered so much more than gloves. But this I do remember, I went home, took off my English clothes, put on my Japanese kimono, and never again, I trust, risked so very much for the sake of so very little.”

Among the many challenges Amy faced during those first months in Japan was that of loneliness. It was not intolerable at first, but as she looked ahead to years of solitary service she began to fear. In August while attending a missionary conference, she spent a whole day by herself in a cave wrestling with her emotions. In the words of Psalm 34:22 she found the Lord’s answer to her need: “…None of them that trust in him shall be desolate.”

Neither her letters of that time nor her later writings reveal whether this was because she had received a proposal of marriage, but she explained the outcome of the struggle by quoting the words of the familiar hymn:

**Take my love, my God, I pour**
At Thy feet its treasure store.
**Take myself and I will be**
Ever, only, all for Thee.

The language was another challenge. Even after nearly a year of trying to master it, Amy wrote in a letter: “I shall never, never, never learn Japanese. You may put it on my tombstone: ‘expired in despair.’” Nevertheless, Amy did not allow her lack of fluency to keep her from doing all she could to share the Good News.

As generosity grew out of her love for the lost, Amy began to experience the truth of Paul’s words: “For God hath not given us the spirit of fear; but of power, and of love, and of a sound mind. Be not thou therefore ashamed of the testimony of our Lord...but be thou partaker of the afflictions of the gospel according to the power of God” (II Timothy 1:7–8).

*Almost from the very beginning, she and Misaki-san spent part of every month traveling to various towns in the area to hold evangelistic meetings. She had the Japanese characters for “God is love” embroidered on her lapel. This emblem gave her many opportunities to make Christ known.*
Amy felt a special concern for the Japanese factory girls. When she went into the slums to talk to them, she was pelted with stones and mocked by loudmouthed teenagers. To the determined young Irish woman, this did not matter because the girls were responding. One time more than eighty young ladies showed up at the meeting to which she had invited them.

Not long after her arrival in Matsuye, Amy heard about an old man who had an evil spirit. He was so wild he had to be tied down. After a period of prayer and fasting, she went to the house and requested permission to see the man. She found out that he had six fox demons, but she remembered that Jesus had helped a man who was possessed by demons named Legion.

She confidently began to tell the crowd of relatives in the room that the Lord Jesus Christ could cast out the six spirits. At the mention of His name, the man was seized with a fit of violence and cursing. When she knelt to pray, the struggle only intensified. Amy was politely but quickly ushered out.

A wave of shame and disappointment swept over her because she felt she had dishonored the Lord's name in front of the heathen, but then the words on which she had been meditating earlier in the day came back to her: "...All power is given unto me in heaven and in earth" (Matthew 28:18) and "And these signs shall follow them that believe; In my name shall they cast out devils..." (Mark 16:17).

The confidence of her faith was restored, and as she turned to go she asked the demonic's wife to let her know when her husband was delivered. Amy assured her that God would win this battle, and she promised to go home and pray until she heard that the demons had left.

In less than an hour a messenger appeared at Amy's door saying the fox spirits were gone. The man had been untied and was resting quietly. She was invited to visit him the next day and found him calm, courteous, and very grateful. It was some time before he came to understand that it was Christ and not Amy Carmichael who had cast out the evil spirits, but he eventually came to trust Jesus as Savior.

Another prayer victory came as Amy made monthly visits to the village of Hirose. Almost everyone who lived there was Buddhist, but there were a few Christians—perhaps ten. Just before Amy was to go there for the first time, she spent a whole day in prayer. She came to the conviction that the Lord wanted her to ask for one soul, so she began to pray that one person in Hirose would accept Christ.

While Amy was in Japan, she wrote many letters to her mother in England. She included sketches of things she saw and detailed descriptions of people, places, and spiritual needs. These letters were collected and published as Amy's first book.

The next morning Amy and Misaki-san set out for Hirose. There they met a young silk weaver who left her loom to spend the day listening to this new teaching. By evening she was ready to pray the prayer of faith.

The next month Amy felt impressed to ask for two converts. The silk weaver brought a friend who eagerly accepted the message, and then an old woman also accepted Christ.

Two weeks later they made another visit. This time the Lord had led Amy to ask for four. At least one of the other missionaries thought this kind of praying was presumptuous. After all, it often took months of teaching before a Japanese person came to a point of just understanding the Gospel, much less accepting it.

After traveling through deep snow to get to Hirose, Amy and Misaki-san met with the Christians. Only a few came, and they, too, felt that four conversions was too much to ask. The next day as they visited with people, Amy began to feel that perhaps she had misunderstood the Lord's leading.

They talked with many people, but no one seemed the least bit interested in the Gospel. By the time the sun set and it began to get dark, Amy was ready to give up. A sudden sense of the Lord's presence, however, encouraged her to persevere. Within a few minutes a woman who had until then seemed indifferent to what they were saying said suddenly that she wanted to believe.
While they were talking with the woman, her son came in. In half an hour they had both been won to Jesus Christ. As the missionaries left the area, they passed by the home of one of the Christians and decided to stop and tell them of the two decisions. They were told another inquirer was waiting for them in the preaching room.

They went at once and had the joy of leading to the Lord another friend of the silk weaver. By then, all the Christians had gathered. Amy told them God must have the fourth person waiting somewhere. One man said that it must be his wife because she wanted to come to Christ, but she was away visiting her family in another village.

Amy and Misaki-san went to bed elated over the three victories but still wondering about the other one for whom they had prayed. The next morning just before they left, word came that the man’s wife had unexpectedly come back to town. They went to see her, and she received the Lord.

It was six weeks before they returned to Hirose. This time Amy had felt convicted to ask for eight conversions. At first she resisted this as “too much to ask,” but she kept coming back to God’s Word: “And this is the confidence that we have in him, that, if we ask any thing according to his will, he heareth us: And if we know that he hear us, whatsoever we ask, we know that we have the petitions that we desired of him” (I John 5:14–15).

The Hirose believers balked, too, at asking for eight. They were afraid of the embarrassment of having asked for something and then not receiving it. Amy offered to stay longer than planned to give God more time to bring them in, but they said they could not arrange any more meetings. Together they read the great prayer promises of the Bible and prayed until they were all of one mind. Then one by one the eight souls came.

A month later as she prepared to go back to Hirose, Amy wondered if the Lord would lead her to ask for sixteen. This time no number was given, but the Christians brought many of their Buddhist friends to the meeting. Instead of sharing the Gospel, they just prayed and quite a few were saved. Amy was not sure of the number, but one thing was certain: The Christians were so full of joy they could not even speak.

Several years later another missionary reported that the Hirose converts of those months were still standing firm in the faith. Amy, however, was not there to see the fruit of her labors. Only fifteen months after her arrival in Japan, Amy boarded a steamer back to Shanghai, where the doctor had ordered her to go for rest and a change of climate.

She fully intended to return to her work in Japan within six weeks. She even bought a round-trip ticket when she left. However, after only a few days she felt that the Lord was leading her to go on to Ceylon. Again without waiting for confirmation from the mission committee, she embarked.

Sri Lanka, which used to be called Ceylon, is an island off the coast of southern India. It is famous for producing tea.

After a few months in Ceylon, her doctor insisted that she not return to Japan. She had just begun to settle in when a letter came saying that Mr. Wilson had suffered a stroke. Amy sailed for London the very next day and was ill the entire voyage. Her mother met her at the dock on December 15, 1894, the day before her twenty-seventh birthday. Though still very sick, she managed to make it to Broughton Grange before Christmas.

Mr. Wilson was overjoyed to have Amy with him again, and he recovered quite rapidly from his stroke. He knew, though, that Amy had not come back to stay.

She was anxious to get back to the mission field, but once again faced the question of where. No doctor would approve her for a tropical climate, but she was willing to go with any mission that would take her.

That spring a friend wrote to her from Bangalore, India, saying that the climate there was very pleasant and healthful. Amy thought it sounded too easy, but in deference to those who were so concerned about her health, she agreed to apply. Even though she was not Anglican, the Church of England’s Zenana Missionary Society accepted her for service in Bangalore.
In the fall of 1895 Amy arrived in India, the country she would never leave until the Lord called her home over fifty-five years later. Although she was sick when she docked, she was soon well enough to begin her work as a hospital evangelist and to tackle language study. She found Tamil almost as difficult as Japanese had been, but she loved her work, the people, and the climate.

She had a sense, though, that all was not as it should be in Bangalore. She was puzzled that there were no Hindu converts and no expectation that there ever would be. The British residents of the city, including the missionaries, enjoyed many amenities. "Too many," Amy thought.

Every year during the hot months of April and May they would go to a resort area in the mountains. Amy considered this an indefensible waste of time and money. She was more interested in being with the people. In fact, she would have adopted native dress and lived in a mud hut if the other missionaries had not stopped her.

When she could not get out of going to the mountains with the other missionaries, she took along Saral, her Tamil teacher. The other missionaries were scandalized when they discovered that Amy was planning to share her room, perhaps even her bed, with the old Indian woman. Their purpose in going to the mountains was not just to escape the heat, but also to get away from the people.

Not Amy! In addition to continuing language study during this "vacation," Amy and Saral went out to witness to the tribespeople who lived near the resort area. As far as she could tell, no one accepted Christ, but some seeds were planted.

At the resort Amy met a missionary named Thomas Walker. At first she was not impressed with him, but when he and his wife invited her to come to Tinnevelly to study Tamil, Amy accepted. Mr. Walker turned out to be not only an excellent language tutor but also a valued co-worker for years to come.

Mr. Walker had recently resigned an administrative post with the mission, and about the time Amy came to live with them he received permission to get back into direct evangelistic work in the villages. The Walkers asked Amy to join them and start a work for women.

Amy was delighted because this would be similar to what she had done in Belfast, Manchester, and Hirose. Because of the love in her heart, she had a burning desire to give the people that most valuable of all treasures—the Gospel.

When, in early 1898, Amy took her last Tamil examination, she wrote: "Hallelujah! Hurrah! The exam is passed! I'm free for souls at last!" Amy invited several Indian women to work with her. They began going from one village to another by oxcart, sharing the Good News from house to house or in public gatherings, wherever they could get a hearing.

The Hindu religion with its cruel caste system had the people firmly in its iron grip. Often the listeners were merely curious about who the missionaries were, but not really interested in their message. The band of women was never asked to come back and teach again in any of the villages, and many times the people threatened and cursed them.

Though often discouraged by the poor response, Amy and her little band did not despair. They were sharing out of love, the kind of love that keeps on giving without expecting anything in return.
From time to time there were victories won by prayer similar to those Amy had experienced in Hirose. Sometimes the group would feel led to ask the Lord for one soul on a particular day.

One afternoon after they had prayed thus, they were returning to the tent without having had anyone accept Christ. Amy knew their oxcart driver was interested in the Gospel, so she asked him when he was planning to accept the Savior. He said, “Tonight.” They all had a prayer session in the tent that night, and he did become a Christian. Amy found out later that a group of her prayer warriors in England had been praying specifically on that date for a convert to be won.

The bandy driver’s conversion was obviously the fruit of prayer both in India and in England.

During these years of village work, Amy saw for herself the Hindu practice of having certain girls and women become “married to the gods.” This meant they were trained to be shrine prostitutes, and they were virtual prisoners in the temples. What disturbed Amy most was the knowledge that not one of these temple women had ever come to Christ. There seemed to be no possible way of getting the Gospel to them, but she felt that somehow someone must find a way to reach them.

Occasionally in the temples Amy saw very young girls who had been bought as babies. She found out that they were kept there (often against their will) and trained by the temple women. How she longed to reach out and take these precious children away so they could be taught about the true God and learn to live a life of purity!

Then something took place on March 7, 1901, that, in Amy’s words, “caused a new thing to begin and I was rooted for life.” It was on that date that the first temple child came to live with Amy and her co-workers. The little girl’s name was Preena. She was about seven years old.

Preena’s father had died when she was very small, and her mother had allowed the temple women to take her away. Once before this, she had escaped and walked the twenty miles to the town where her mother was. The temple women followed her there. Preena’s mother was so intimidated by their threats that she pried the girl’s arms from around her neck and gave her back to them.

They branded the child’s hands with hot irons as a warning that she should never try to run away again. However, when she overheard them talking about marrying her to the god, she decided she had to escape. Somehow (Amy said God sent an angel) Preena managed to walk away from the temple without being seen and make her way to Pannaivilai, the village where Amy and the Walkers were living at the time.

At dusk an elderly woman was walking past the Pannaivilai church and found Preena sitting by the door. The little girl told her from where she had come and begged not to be taken back. The woman decided it was too late to return her to the temple that evening, so she kept her overnight.

Early the next morning Amy was having tea on the veranda when the old woman showed up with the child. Immediately Preena sensed the love in this foreign lady’s heart and ran to her. Amy took her onto her lap and kissed her. Preena chattered away, cheerfully announcing that she had come to stay.

She stayed for fifty years, growing up to become a valued friend and co-worker, but things were not easy at first. The temple women found out where she was and came to get her. A big crowd gathered around the missionary bungalow. Preena was terrified and pleaded to be allowed to stay.

To avoid accusations of child-stealing, Amy felt she had to let the little girl decide for herself. Preena stood bravely in front of the mob and told them she did not want to leave. The temple women could produce no evidence that Preena belonged to them, so all they could do was make some empty threats and go away.
For a time Amy and the Indian women continued their evangelistic traveling, but the fact that there was a child at home to care for began to change the focus of the band’s work.

From Preena’s stories Amy came to understand more of the horrible trafficking in the souls and bodies of children that went on behind the temple walls. The missionaries tried everything they could think of to find and rescue these abused children from the immoral life in the temples.

“Yet,” wrote Amy, “the helpless little things seemed to slip between our fingers as we stretched out our hands to grasp them, or it was as though a great wave swept up and carried them out to sea. In a kind of desperation, we sought for a way. But we found that we must know more before we could hope to find it.” In fact, it would be several years before another temple child would come to live with the band.

Within the next few months, however, several other children came. Some were orphans; others just needed a home for some reason. In the name of Jesus, Amy and her band took them in. A number of the teenage girls they had won to the Lord were put in charge of taking care of the children while the band continued their door-to-door witnessing and open-air meetings in the villages.

Amy was stretched to the limit, trying to be a mother to the little children and leader of the women’s work at the same time, but she was unwilling to give up either aspect of the ministry. Then one of the young women fell sick, and Amy and her helpers had to drop the itinerant work for three months in order to nurse her back to health. This helped Amy begin to realize that the children not only needed their “mother” to be with them, but they also needed a home.

When she answered the call to missions, Amy had given up any desire she had for a home and a family in order to serve the Lord with a “single eye.” As one biographer put it, “the willingness to sacrifice that springs from a loving heart rather than the desire for spiritual distinction is surely acceptable to God. But, as in the case of Abraham’s offering of his son, Isaac, the sacrifice itself is not always finally required. What is required is obedience.”

Through an amazing series of “coincidences,” God provided a home. Mr. Walker was asked to move to the village of Dohnavur in order to teach some seminary students. Of course, the “family” went with him. There, Amy finally put down roots, and the ministry God had for her started to grow.

In March of 1904, three long years after Preena came, Amy held the first temple baby in her arms. The two-week-old infant had been rescued by an Indian pastor, who then had brought her to Dohnavur. By June the family had increased to seventeen children, including a half-dozen temple children, each one a direct answer to prayer.

The nature of Amy’s sacrificial giving changed. In the early years, she gave up the comforts of a settled life in order to travel from place to place sharing the Gospel. Whether she was trying to break through the proud shell of a high-caste woman or presenting the claims of Christ to a large crowd in an open-air meeting, it was hardly glamorous or romantic work. Now her daily tasks were even less so.

The endless drudgery of cooking, cleaning, sewing, and changing diapers caused her to question: “Could it be right to turn from so much that might be of profit and become just nursemaids?” The answer over the years was an overwhelming “Yes.”

Amy wrote: “If by doing some work which the undiscerning consider ‘not spiritual work’ I can best help others, and I inwardly rebel, thinking it is the spiritual for which I crave, when in truth it is the interesting and exciting, then I know nothing of Calvary love.”

That “Calvary love” was the soil out of which her generosity grew. Without it, the act of giving would have been of little value. “And though I bestow all my goods to feed the poor, and though I give my body to be burned, and have not charity, it profiteth me nothing” (I Corinthians 13:3). This was the type of love that “beareth all things, believeth all things, hopeth all things, endureth all things” (I Corinthians 13:7).
Amy and those who served with her learned that even the mundane tasks of bathing and feeding children were important ways of giving for the sake of God's Kingdom.

One of the things Amy and her co-workers had to bear during their first years in this new ministry was Satan's onslaughts in the form of disease. Some of the babies who were brought to them were sick and in need of mother's milk, but it was almost impossible to find an Indian woman who would "break caste" by breast-feeding someone else's child. Not even the Christian women in the village were willing to do it.

By the end of the first year, two of the babies in the Dohnavur nursery had died. That left only one—beautiful, happy little Indraneela. Then during the first week of 1905, she was taken, too. It was a heavy blow for the family, but Amy knew it was not the end.

Within a few months they had established another nursery in a town where a missionary doctor lived. Now the babies could have better medical care. Still, when an epidemic of dysentery hit in 1907, ten of the little ones died. Yet, God continued to bring rescued babies to them for care.

They needed new buildings to relieve the overcrowding. To Amy's way of thinking, the answer to that need was the love that "believeth all things." She remembered how she and the factory girls in Belfast had trusted the Lord to provide a meeting hall without their requesting donations or even publicizing the need. They decided to follow the same principle now and started to pray.

Almost immediately the Lord confirmed their faith when they received a gift from someone in England. Even though they had told no one outside their group about plans for a new building, the money was designated specifically for "the nursery." A few months later another friend sent the largest donation they had ever received. Again, it was earmarked for the nursery.

In this same fashion, the various financial and physical needs of the Dohnavur Fellowship, as the ministry came to be called, were met for the rest of Amy's life. In fact, the Fellowship continues to operate on the same basis today.

Even more urgent than the need for buildings was the need for additional workers. Once again, a principle Amy learned in her early work in Belfast served as the pattern for Dohnavur. She would not accept anyone who was less than totally dedicated to the Lord and His work.

Out of the love that "hopeth all things," Amy always counted on the Lord to send workers—both Indian and foreign—who shared her vision. She wrote that she was looking for those "who will be utterly other-worldly, utterly single-hearted, utterly consumed. Don't think I am that myself! I fall far short of my own standard. But that is what I want to be, and that is what we must be if we are to stand the strain and conquer."

Sometimes other missions would send candidates to work at Dohnavur. They almost always had to be sent back. Amy began to pray that those who were not meant to serve with them would be discouraged from even applying. She wanted only those who had a "single eye for God's glory."

Over the years God put together a group of missionaries which was unique among world missions. Once an older missionary told Amy that missionaries always quarrel, but then make up.
Amy said, “We could not bear to live for one minute out of love with one another.” Love was the “gold cord” that bound them together—love for God, for each other, and for the children they were helping.

3

A GENTEEUS LIFE PRODUCES FRUIT AS IT MATURRS.

The battle for endangered children went on, and God allowed the missionaries to rescue many. Step by step the Dohnavur ministry expanded. Adjoining land was acquired and additional buildings erected. More workers came. The first groups of girls grew up, and some of them became workers as well.

As the family became larger, Amy could no longer give each child the kind of personal attention she did at first, but all of them regarded her as their mother. Indeed, everyone called her Amma, the Tamil word for “mother.” The other workers were called “elder sister,” “aunt,” or “elder brother,” but there was only one Amma.

One example of the expansion of the ministry was the eventual inclusion of boys. In 1909 Amy visited one of the villages near Dohnavur where the people were celebrating the Juggernaut festival. Their Hindu idol was mounted on a huge wooden cart which was pulled through the streets of the town amid throngs of shouting worshipers.

Amy had no interest in the pagan revelry, but something caught her attention. Riding on the cart were several little boys—acolytes of the god. The tragic sight evoked the same response she had had when she first became aware of how the temple system enslaved little girls to a life of sin. She felt something must be done about this horrifying situation, even if it meant she was the one to have to do it. Amy began to pray.

When Amy began investigating, she found out that little boy babies were sold or given to the Hindu temples, where they were trained to be musicians, teachers, or actors in the pagan dramas. Often they became involved in sodomy.

After several years of gathering information, Amy was asked to share with the government what she had found out about this abuse of little boys. She willingly did so, and once the truth was known, it was not long before laws were passed banning these vile practices.

Amy knew, however, that such laws were easy to evade, so she kept seeking a way to help. Often other missionaries who knew of her concern would try to discourage her; they felt she had enough to do with the girls. There were too many problems to overcome, they said, but Amy knew God was able. She prayed for nine years. Eventually her prayer was that God would either take away the burden she had for little boys or make it clear what she was to do for them.
After several unsuccessful attempts to rescue the boys, the breakthrough came late one January evening in 1918. An oxcart pulled into Dohnavur, and a woman handed out a baby. Amy cuddled the child on her lap for a few minutes before it was taken to the nursery. Not five minutes later, the surprised doctor came rushing back with the news that the baby was not another girl as they had assumed; it was their first boy!

Things happened rather quickly after that. Amy looked into buying the field next to the girls' compound. The Lord gave her a vision of what the new buildings should be like, and she prayed for a specific amount of money to come in as a confirmation of God's direction. In the next day's mail was a check for the exact amount! Their second boy came six months later, and by 1926 there were some seventy or eighty boys living at Dohnavur.

It would take more praying and waiting, but God would also supply the most important missing ingredient for this new aspect of the ministry: men of the right kind of character to teach and to train the boys.

Although her ministry was now focused on the children, Amy Carmichael never lost her zeal for evangelism. In 1921, she and the other Dohnavur workers were praying about how they could get the Gospel message to the fifty or so villages that lay within a five-mile radius of Dohnavur.

They knew that these villages were closed to most direct methods of witnessing, but the Lord gave them a vision of how a Christian hospital could meet both spiritual and physical needs, and they began to pray. It was not until 1928 that God provided the doctor who would direct the hospital work. That morning, while asking for guidance in some money matters, Amy had prayed, "Do anything, Lord, that will fit me to serve Thee and to help my beloveds." Later she went to a small town about four miles from Dohnavur. Two women from the Fellowship were to open a dispensary in a rented house there. It was to be the first chance for a Christian ministry of any sort to have an impact in a village that was hostile to the Gospel.

It was nearly dark when the women arrived. While they were waiting for someone to come with a key, Amy went to the outhouse, which was nothing more than a hole in the ground underneath a palm-leaf shed. The workers, however, had dug the hole in the wrong place. It was just inside the door instead of at the back.

In the dim light, Amy did not see it. She slipped and fell across the narrow pit, breaking her leg, twisting her spine, and dislocating her ankle. The pain was tremendous, especially as she was placed in the wrong position. It was just inside the door instead of at the back.

Amy considered the hospital not just an outreach to the people in the area but also an important training ground for the Dohnavur boys and girls. They were taught to perform all kinds of menial work in and around the hospital. They were not paid; everything was to be done in love. Amy wanted her children "to be grains of wheat, falling into the ground and dying, and what better field for that 'dying' than in a hospital where they could give themselves to people from whom they would receive no benefits in return?"

During the decade of the 1920s Amy's health was not particularly good. Passing her sixtieth birthday, she was overweight and not able to get around very well. The headaches that had plagued her for years had gotten worse, but she seldom let anyone else know about her aches and pains and definitely had no desire to slacken her pace.

In early 1931 she called the Fellowship together, and they decided to ask the director of the hospital and his brother to take over leadership of the men's work and one of the women doctors to be in charge of the women's work. In spite of this change, Amy was still very much the mother, not only of the children, but of the whole Fellowship.

Then on October 24 of that year, an even greater change took place. That morning, while asking for guidance in some money matters, Amy had prayed, "Do anything, Lord, that will fit me to serve Thee and to help my beloveds." Later she went to a small town about four miles from Dohnavur. Two women from the Fellowship were to open a dispensary in a rented house there. It was to be the first chance for a Christian ministry of any sort to have an impact in a village that was hostile to the Gospel.

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In the dim light, Amy did not see it. She slipped and fell across the narrow pit, breaking her leg, twisting her spine, and dislocating her ankle. The pain was tremendous, especially as she was placed in the back of a truck and bumped over the forty-six long miles to the hospital at Neyoor.

Though her injuries were far from minor, everyone expected that a few weeks of good medical care and rest would restore her former vigor. In less than two weeks, she was back home in Dohnavur, but the pain would not go away. Her condition improved slightly in the months that followed, but Amy would spend the rest of her life as an invalid.
For almost twenty years Amy's illness required her to be confined to this room in the main bungalow. It was called "The Room of Peace."

generosity of her character, however, would not allow her to stop giving even then.

She was no longer able to move about the compound as she once did, helping, encouraging, making decisions, and mothering, but most days a constant stream of people came to see her in her room, and she would see groups of children as often as possible.

One of her priorities was to talk with the Fellowship leaders daily. She always seemed to have her finger on the pulse of what was happening in the ministry. Whenever she could, she tried to ease the strain on those who bore the burden of leadership. Often she had long talks with some member of the family who was causing problems. When things did not go well, she blamed herself for not keeping in touch with what was going on.

In addition to these personal conversations, Amy communicated with her children and co-workers by writing to them. When the main leaders were away on furlough, she wrote them detailed accounts of everything that was happening so they would be well-informed. She often wrote to those who were there at Dohnavur just to encourage and motivate them.

Amy always tried to write at least a note to each one on his birthday or when someone seemed particularly in need of advice or counsel. Those who received these notes often kept them for years and read them over and over again. She also wrote hundreds of verses which were set to music and sung by the family as they gathered daily for prayer.

Amy's writing was a means of ministering to a much larger audience, too. She had been writing ever since she went to Japan, and by this time had published some two dozen books. It was through these publications that many Christians around the world came to know of the unique ministry of the Dohnavur Fellowship.

After the accident she completed thirteen more books and edited many editions of her previous works which were being reprinted. One biographer believes that "God used her pen for more widespread and deeper spiritual blessing during the post-accident period than in all the preceding years."

Total sales of the British editions of her works have passed the half-million mark. Before her death they had been translated into fifteen different languages, and many had been published in braille. However, when Amy heard that a magazine article described her books as popular, she responded: "Popular? Lord, is that what these books written out of the heat of the battle are? Popular? O Lord, burn the paper to ashes if that be true."

Because of the constant pain she suffered, writing was not easy for Amy. She felt that it was only the persistent praying of the Fellowship that made it possible for her to continue to write.

Though her books were read around the world, she received the most joy by knowing that her own children were spiritually strengthened by her writings. "I am gladder than I can tell you," she said in a letter to one of them, "to know that If helped you. I would rather help one of my own family than anyone else in all the world."  

Only in the last days of her life when she went into a coma did Amy Carmichael stop giving. On January 18, 1951, she went to be with her Lord.
Even then her ministry did not end. The Dohnavur ministry continues today, and her writings are a great source of encouragement to thousands of readers.

Even then her ministry did not end. The Dohnavur ministry continues today, and her writings are a great source of encouragement to thousands of readers.

**PROJECT**

Determine why God used Amy Carmichael. Evaluate her character qualities and make a personal inventory of these same qualities in your life.

1 **INITIATIVE**

At seventeen, Amy took the initiative to help a woman in distress. Then she took the initiative to bring the Gospel to the factory girls. Later she took the initiative to build a meeting hall and then to repeat this process in other places. What initiative have you taken or could you take to spread the Gospel in your neighborhood or city?

2 **COURAGE**

Amy began her ministry by helping those who were poor and despised, and she was willing to endure personal rejection in order to show Christ’s love to them. Who are the poor and despised near you?

3 **FAITH**

Amy did not presume upon the future or jeopardize God’s work by borrowing money or begging for funds. Instead, she trusted God for direction through His provision and waited for His timing in starting projects. What experience have you had in praying for funds and seeing God provide?

4 **CONFIDENCE**

The successful experience in Christian ministry which Amy had in one area gave her confidence and direction in starting ministries in other areas. What successful Christian experience have you had in the past which would give you direction for future ministry?

5 **DILIGENCE**

Amy was diligent in corresponding with her mother and others with thoughtful, challenging letters of report, which became her first book and the basis of her writing ministry. What experiences have you written about which you can use for future resource?

6 **PATIENCE**

Whenever Amy was physically hindered from accomplishing a spiritual objective, she would pray and wait. Sometimes it would take years for the answer to come. For what spiritual objectives are you presently praying?

Date completed ___________ Evaluation ___________
HOW DO ANIMALS THAT LIVE IN DARKNESS ILLUSTRATE WAYS AN "EVIL EYE" RESPONDS TO LIGHT?

A koala is one illustration of how those who walk in darkness respond to the light.

Zoologists classify animals in three groups, according to whether they walk in the light, walk in the darkness, or walk in the twilight where the light meets the darkness. Diurnal animals are those that walk in the light. The name diurnal comes from the Latin word diurnus, meaning "of the day." Those that walk in the light usually awaken at dawn and remain active until dusk.

Animals that walk in darkness are referred to as nocturnal. The term nocturnal also comes from Latin. It comes from the word nocturnus, meaning "of the night." Nocturnal animals awaken after the sun goes down and remain active until it is light again.

The third group of animals are those that walk in the fringes between light and darkness. These creatures are called crepuscular. Crepuscular is a form of the Latin word crepusculum, meaning "twilight." Crepuscular animals attempt to take advantage of both worlds. They have peak periods of activity at both dawn and dusk, but remain inactive during the brightest hours of the day and the darkest hours of the night.

When diurnal animals are exposed to light, they awaken and actively pursue their daily tasks. However, when nocturnal and crepuscular animals are exposed to bright light, there are dramatic reactions which illustrate the way children of darkness respond to the light of God.

Some animals that walk in darkness close their eyes to light.

Most nocturnal animals have oversized eyes which are lined with light-sensitive nerve endings called rods. Many have so many rods that there is no room for color-sensitive nerves called cones. While an abundance of rods allows animals of the night to see in almost total darkness, very few can see the colors that the light of day reveals.

However, because the eyes of a nocturnal or crepuscular animal are so sensitive to light, their retinas or optic nerves may literally burn out if exposed to direct sunlight. In most instances blindness is only temporary, but in some instances light may cause permanent damage to the eyes.

Comparison of Moonlight and Sunlight

These pictures appear the same because the one on the left had a 250,000-times greater exposure than the one on the right. Bright sunlight is about 100,000,000 times brighter than a cloudy, moonless night.

To protect their eyes from the light of day, nocturnal animals are equipped with pupils in the shape of slits rather than circles. Cats are perhaps the most common examples of animals with slit pupils. In darkness, the slits open wide to let in as much light as possible. However, in bright light they shrink to thin openings which block out light.
Comparison of Round Pupils and Slits

Pupils with vertical slits close more completely than round pupils.

The pupils of a gecko’s eye also form slits. At night the slits widen, but during the day they close so completely that only a few tiny holes allow light to enter. One particular type of gecko has lobed pupils which close into four small holes along a vertical line in the center of the eye. Each pupil focuses a separate image on the retina.

Even though their eyes remain open, geckos and cats effectively block out the light of day.

Frogs, fish, and owls also have very sensitive eyes that can be blinded by exposure to light. However, a number of species have dark “veils” which they can draw over the retinas of their eyes during the day. These veils absorb light before it reaches the sensitive retina. At night in the safety of darkness, the veil is drawn back again.

Some animals that walk in darkness flee from the light.

A number of snakes, including banded kraits and spotted night snakes, are very susceptible to the heat of the sun. Because the lower surfaces of their bodies come into direct contact with the heated ground, they cannot stand exposure to direct sun-light for more than a few minutes. Instead they hide under rocks or in underground burrows during the day. If disturbed, they flee in search of darkness.

Poisonous Banded Krait

Sunlight tranquilizes a krait and makes it unable to bite.

One South American deer, called the pudu, protects itself from light by hiding in the thickest parts of the forest by day. If it is exposed to sunlight without access to a shelter, it has been known to die within three hours.

The sitatunga of central Africa, like the pudu, hides during the day. Its favorite retreat is in a swamp with several feet of cool water. It emerges to feed only at night, when it will not be exposed to direct sunlight.

When suddenly exposed to light, animals such as the kinkajou and common house mouse seek cover first before even considering if danger is present. For these and many other nocturnal animals, exposure to light also means that they are vulnerable to the attacks of predators. Because light reveals the presence of nocturnal animals, they must hide or suffer the consequences.

Some animals that walk in darkness ignore the light.

Many of the animals that walk in darkness rely heavily on senses that do not require light. Because many are nearly blind, they rely more on their feelings than their sight.

Bats, for example, use their sensitive ears to “see” with an effective echo-location system. They send out their own high-pitched squeaks which bounce off objects and return. A bat’s hearing is so sensitive it can identify the echoes that bounce off tiny flying insects.

Weasels have notoriously poor vision; yet, they have such well-developed olfactory organs that when accidentally blinded, they continue to hunt without handicap.
Catfish also survive without relying on light. They use the fleshy barbels that rim their mouths as sensitive fingers to feel and smell their way along murky river bottoms.

Channel Catfish

Snakes, on the other hand, have neither good eyesight nor good hearing. In fact, because snakes have no eardrums, it is impossible for them to receive airborne sounds. Instead, they pick up vibrations from the ground.

Cobras, for example, do not hear the music of a snake charmer’s flute. If anything, they sense the music by the vibrations they pick up through the ground or basket.

Snakes called pit vipers are able to hunt in total darkness using heat-sensitive pits located in front of their eyes. The pits register infrared radiation so precisely that they can distinguish a difference of only 0.2°C.

Pits on either side of a snake’s head allow a snake to measure the distance to its prey.

A snake’s forked tongue likewise allows it to sense the location of its prey by its scent. The tongue itself does not “smell.” It only collects scent and transfers it to a forked sheath inside the snake’s mouth. This sheath, called the Jacobson’s organ, is lined with nerve endings similar to those in the human nose. These are linked directly to the olfactory nerve which leads to the snake’s brain.

4 Some animals that walk in darkness conform to the light.

Several cave-dwelling salamanders and fish live in perpetual darkness and completely lack any colored pigment in their skin. In fact, their bodies are so clear that their organs are visible underneath their skin. However, when exposed to the light of day, many cave dwellers begin to produce pigment which colors their skin.

Even the colorful spots of guppies fade in the absence of light. When exposed to light, the spots darken.

Scientists call this pigment melanin. The word melanin comes from the Greek word μέλανα (MEH-lahs), meaning “black.” Melanin is a dark brown, almost black molecule that combines to form long chains. These chains curl up into balls to produce visible specks of pigment called melanosomes.

Melanin is normally present in skin, hair, the iris, and the retina. It is what makes hair red, eyes blue, or skin various shades of brown. Since light stimulates the production of melanin, animals that walk in the light are typically more colorful than those that walk in darkness.

The Dramatic Result in the Offspring of an Olm That Lives in the Light

Without exposure to light, some animals do not mature into adults. The olm salamander of Europe, for example, lives its entire life without ever seeing the light of day. While other salamanders undergo metamorphosis, which converts their external gills into internal lungs, the lack of light in its underground surroundings prevents the olm from maturing.

Instead, olms breed while still in their larval stage. Whereas their young are born with eyes, living in perpetual darkness quickly causes their eyes to atrophy into useless stumps.
When olms are exposed to light, however, their young mature fully and have eyes that see. With continual exposure to light, these salamanders retain their eyesight and develop pigmented bodies.

Like many cave animals, an olm salamander is very pale and has lost the power of sight. Without exposure to light, olms retain their external gills and never fully mature.

Scientists call the process through which immature young breed and produce new generations of immature young neoteny (NEE-uh-TEE-nee). This term comes from the Greek νέος (NEH-oss), meaning “new” and τινό (TAY-no), meaning “to stretch.” Neoteny means literally “to stretch or prolong newness or immaturity.”

Neoteny is partly connected with the effects of the hormone thyroxine, which is involved in larva-to-adult metamorphosis. Thyroxine regulates metabolism, growth and development, and activity of the nervous system. Light stimulates the production of thyroxine in salamanders and, thus, promotes maturity.

The Confusion That Occurs in a Mouse When It Lives in Darkness

All living things (apart from bacteria) appear to have a “biological clock” which helps them keep track of time. The “clock” controls metabolism, body temperature, urine output, hormone levels, and powers of concentration.

Since these biological clocks work on close to a twenty-four-hour cycle, scientists call their effects circadian rhythm. The word circadian comes from the Latin words circa and diem, meaning “about one day.”

Some clocks run a little slow, and others run a little fast. Most animals, however, reset their “clocks” each day with the rising or the setting of the sun. This habit keeps them in step with one another.

The “clocks” of animals that walk in complete darkness, on the other hand, gradually drift out of step with the rest of the world. Their inability to synchronize their days and nights with the true light of day introduces errors into their life cycles.

For example, if a mouse is deprived of any clues revealing the true light of day, it is unable to reset its biological clock. As time goes by, its clock gradually adopts a cycle of about twenty-five and a half hours instead of a twenty-four-hour day. Within a week it has night and day completely reversed. It sleeps while other mice are active and awakens as its neighbors go to sleep.

If kept in constant light, the circadian rhythm of a nocturnal animal slows down, but that of a day-active animal tends to accelerate. The amount the rhythm slows down or speeds up is related to the brightness of the light in which the animal is kept.

PROJECT

Apply facts about animals that live in darkness to the following verses.

1. Animals that shut out the light:
   “... The god of this world hath blinded the minds of them which believe not, lest the light of the glorious gospel of Christ, who is the image of God, should shine unto them” (II Corinthians 4:4).

   How does Satan use light to blind those who live in darkness? (See II Corinthians 11:13-15.)

2. Animals that flee from light:
   “For every one that doeth evil hateth the light, neither cometh to the light, lest his deeds should be reproved” (John 3:20).

   How does Satan use light to increase the evil of those who live in darkness? (See Romans 7:7-8.)

3. Animals that ignore the light:
   “… They glorified him not as God, neither were thankful; but became vain in their imaginations, and their foolish heart was darkened” (Romans 1:21).

   How does rejection of the light produce greater sensuality? (See Ephesians 4:18-19.)

Date completed _______ Evaluation _________
HOW DOES THE TRANSPARENCY OF WINDOW GLASS ILLUSTRATE THE REQUIREMENTS OF A "SINGLE EYE"?

There are more than 100,000 kinds of glass, ranging from bulletproof glass to delicate optical fibers. In one year alone, the United States used more than eleven million tons of sand to make glass.

An eye that is "single" is one that sees from God's perspective without being influenced by its own nature or the circumstances of the world. A "single eye" is one through which the light of God passes without alteration. It is one which is completely transparent.

An "evil eye," on the other hand, is one which imposes its own nature on the light it receives, distorting its color, direction, and intensity, or perhaps blocking the light altogether. An evil eye may cause confusion by scattering the light it receives, or it may misrepresent the truth by selectively removing portions of the light.

Learn how common window glass illustrates the requirements of a "single eye" and the consequences of an "evil eye."

1 Window glass must be free of distortion in order to transmit faithfully the light it receives.

Imagine for a moment that you are driving down a busy street on a bright, sunny afternoon.

Suddenly the windshield and all the car windows go dark. You cannot see the traffic light or the car in front of you. Inside your car is total darkness.

Impulsively you hit the brakes and come to a stop. Horns honk, tires screech, and your muscles tense in anticipation of an impact, which never comes. Quickly you roll down your window. It is still bright outside, but the windshield and windows remain black. Other cars swerve back and forth, colliding with one another like bumper cars at a carnival.

You notice that you cannot see the drivers or passengers inside other cars. Their windows are clouded over. Storefront windows look frosted instead of clear. Traffic lights look black. Even your sideview mirror looks as if it had been sprayed with black paint.

Light does not "pass through" glass windows. The light you see inside your car is actually an electronic display stimulated by the light outside your car.

While this imaginary scene may seem bizarre, it is descriptive of what might happen if glass ever lost its transparent qualities. Indeed, every time you get into a car and shut the door, you block out all external light. The light that strikes the outer surface of your windshield is, in fact, not the same light you see on the inside. The light you see coming through your windshield is only a representative display of the light outside your car.

In essence light does not pass through a glass window or windshield. Glass is transparent only because it faithfully transmits the light it receives. In a complex series of interactions, each successive molecule within the glass passes on the light it receives to the next molecule until the signal faithfully and accurately emerges on the other side.

To the degree that each molecule in the glass neither adds to nor takes away from the light it receives, the picture you see displayed on the inside of your windshield is identical to the true picture outside.
However, any molecule which fails to reproduce accurately what it receives from other molecules introduces error into the picture. These distortions are then passed on to other molecules, which pass on the errors to others. When this process takes place, the picture displayed on the inner surface of a window may be fraught with distortions.

**Window glass must be in harmony with the light it receives.**

Visible light is only a small portion of a broader form of energy called **electromagnetic radiation**. Electromagnetic radiation acts like a wave which contains both electrical and magnetic fields that oscillate back and forth according to strict mathematical principles. These waves travel through a vacuum at exactly the same speed (approximately 186,000 miles per second), regardless of their wavelength or frequency.

**Electromagnetic Spectrum**

- **Gamma rays**
- **X rays**
- **Ultrasound**
- **Ultraviolet rays**
- **Visible light**
- **Infrared rays**
- **Radio waves**

*Wavelength is a measure of the distance from one wave crest to the next. Wavelength determines the color of light. Frequency is a measure of the number of crests that pass a given point each second. Wavelength is inversely proportional to frequency.*

The intriguing quality of glass is the capacity of its dipoles (electrons and protons) to oscillate in harmony with the light they receive. When the dipoles in glass vibrate back and forth in unison with the electromagnetic waves, they produce new electromagnetic waves that are exactly like those which started them vibrating in the first place.

The dipoles in glass act like miniature transmitters which sense the presence of electromagnetic waves and immediately yield to their oscillations. Physicists describe this as being “in phase.” Each oscillating dipole in a window pane serves as a “relay station” which vibrates in phase with the electromagnetic waves it receives.

To demonstrate the interaction of dipoles, support a ruler with a string tied to each end. Now hang two weights from the ruler with strings of equal length. Place the two weights about six inches apart.

Start one of the weights swinging. Notice that it causes the second weight to start swinging in harmony. Notice also that as the second weight starts to swing, the first weight stops. However, the second weight will eventually transfer its energy back to the first weight. This exchange of energy will continue back and forth between the two weights until friction slows them both to a standstill.

Dipoles also “swing” in harmony with one another and pass their vibrational energy from one dipole to the next.
Glass transmits radio waves, X rays, gamma rays, and visible light. That is to say that the dipoles in glass yield to these waves’ oscillations and vibrate in harmony with them.

However, glass does not respond in harmony to all electromagnetic waves. For example, when ultraviolet light strikes the dipoles in glass, the dipoles do not vibrate in phase with the electromagnetic waves of that light. This inability of the dipoles in glass to vibrate in phase with the wavelengths of ultraviolet light makes glass impervious to ultraviolet light.

It is the nature of every substance to transmit some forms of electromagnetic waves and to be impenetrable to others. The difference lies in the physical composition of the dipoles which make up the substance. Some substances yield to certain wavelengths but not to others. Because each substance has a unique set of wavelength-transmitting characteristics, scientists can identify unknown materials by determining the wavelengths of radiation with which they oscillate in phase and the wavelengths with which they do not.

Although brick walls are opaque to visible light, they are permeable to a number of other wavelengths of radiation, including radio waves and X rays. Metal, on the other hand, is impermeable to almost all forms of electromagnetic radiation. It blocks out radio waves so effectively that a car radio transmits only static as it passes under a metal bridge.

3 Window glass must be free from internal impurities in order to be transparent.

The basic raw material of glass is silicon dioxide (SiO₂). Silicon dioxide is the chemical name for beach sand, which comes from the mineral quartz. In its natural state, sand is not transparent. It has too many impurities to transmit faithfully and accurately the light it receives.

In order to make glass, manufacturers mix sand with oxides of sodium, calcium, lead, boron, potassium, or aluminum, depending on the type of glass being made. Glassmakers then heat this mixture to about 1,000°C. This procedure melts the mixture and produces a chemical reaction between the ingredients. However, so many bubbles and impurities are trapped in this molten mass that it is still not transparent.

To remove the bubbles, glassmakers raise the temperature of the solution another 550°C. At this temperature the liquid becomes thinner, allowing the bubbles to escape. The result is a smooth, homogeneous solution.

The French developed magnificent glassworks in the 1600s in order to break up Italy’s monopoly on high-quality glass. The glass of that era is still regarded as some of the best ever made.

Finally, glassmakers cool the liquid and remove the impurities. Glass impurities do not appear as “scum”; they are quite glassy in appearance, but congeal as patches of stickiness on the surface of the otherwise perfect glass. Failure to remove these impurities produces glass that may scatter light or alter its color.

Impurities such as iron, for example, absorb all but green or brown wavelengths. Copper impurities absorb all but red and green light. Cobalt absorbs all but deep blue. Manganese makes glass purple. Tin turns glass so milky white that it blocks the transmission of light almost completely.

As glass cools, its structure is not altered, but its density is changed. Glass which cools slowly is denser than glass which cools quickly. If glassmakers
are not careful to make sure a batch of glass cools uniformly, it can develop a wavy appearance.

This waviness is due not to impurities, but to a lack of uniformity in the density of the glass itself. The same thing happens to the air above a hot surface such as a beach or a road. Because one spot may be warmer than another, the air above the surface has dissimilar densities. As light encounters a change in density in air or glass, it slows down or speeds up. This variance of speed distorts the light into a confused, wavy pattern.

Because each silicon-oxygen bond is identical to every other silicon-oxygen bond, glass forms a continuous three-dimensional network of molecules. Each silicon atom attaches to four oxygen molecules, and each oxygen molecule is surrounded by two silicon atoms.

These interconnected atoms not only make glass remarkably strong, but they also make glass dependably uniform. Instead of having countless miniature crystals within itself, glass is a homogeneous substance with no internal boundaries or interfaces. It is one continuous network of uninterrupted molecules which are all identical to one another.

Window glass must not have any internal barriers.

Glass is a substance made up of silicon and oxygen. The silicon and oxygen atoms form symmetrical, interlocking tetrahedrons. Tetrahedron comes from the Greek—tetra, meaning "four," and hedra, meaning "face," hence, "four faces."

SILICON-OXYGEN TETRAHEDRON

A silicon atom rests in the center of the four triangular faces, and an oxygen atom rests at the tip of each triangle. This structure is very similar to the tetrahedral structure that makes diamonds so incredibly strong and transparent.

Without boundaries or interfaces to interrupt the flow of light, glass can freely receive and transmit light from one molecule to another. There is no scattering or hindrance to faithful and accurate transmission. In opaque substances such as wood or rocks, however, there are so many irregularities between molecules that light waves literally get lost in the confusion.

The molecules which comprise glass are small compared to the wavelengths of visible light. Visible light ranges from four thousand to seven thousand Å (angstroms), while the molecules in glass are only about two to three Å in diameter. (An angstrom equals one hundred millionth of a centimeter.)

When the molecules of any substance are small compared to a wavelength of electromagnetic radiation, that substance becomes permeable to that particular type of radiation. For example, radio waves, which range in length from meters to kilometers, pass through wood and rocks unhindered. The molecules and, therefore, the irregularities of those substances are small compared to the length of radio waves. Wood and rocks are opaque to visible light because their irregularities are large compared to the wavelengths of visible light.
This phenomenon is similar, in some respects, to driving a car over a rough road. Bumps that are about the same size as your tires are terrible “shockers,” and they seem to shake every bone in your body. However, bumps that are tiny, perhaps only a fraction of an inch, go completely unnoticed.

**5 Window glass must be free from surface defects.**

Because of its unique qualities, glass is difficult to classify as a solid, liquid, or gas. It has a surface that is hard, yet it flows like a liquid. In fact, the glass in every window of your house is probably thicker at its bottom than at its top, because it gradually flows downhill in response to the pull of gravity.

Of course, glass does not flow like water. Its strong intermolecular bonds make glass very stiff. Scientists refer to resistance to flow as viscosity (vis-KAH-S-u-h-tee). It comes from the Latin word viscum, for “mistletoe.” Viscum eventually became associated with the stickiness of mistletoe berries.

Glassmakers measure viscosity in units called poises (PWAHZ-ez). For example, water has a viscosity of about 0.01 poises at room temperature. Glycerin is about 200 poises. Glass, on the other hand, has a viscosity of $10^{20}$ poises.

The molecular bonds within glass are so strong that newly formed glass fibers will support loads of up to 980,000 pounds per square inch. That is five times stronger than the strongest steel! In spite of the inner strength of glass, however, surface defects can render it totally ineffective at transmitting light and can cause it to shatter under the weight of a five-ounce baseball.

![This droplet of glass can drive a nail like a hammer; however, even the slightest break in its surface can cause it to shatter.](image)

Although a sheet of glass may appear perfect, surface defects can scatter light before it ever enters the glass. In some cases minor defects may only dim the transparency of glass. Major defects, however, may cast a shadow several times larger than the defect itself. Even small defects that are widespread may scatter light so haphazardly that any image is completely lost.

Surface defects also lead to cracks. Since glass is rigid, any stress is transferred uniformly over the surface of the entire sheet. If there are no surface defects, the glass does not yield to the stress.

However, if a defect is present, the glass will yield at the point of stress. Because of the homogeneous structure of glass, a crack, once begun, encounters no internal boundaries or other limitations which would hinder its progress. The crack spreads until it comes to the edge of the glass.

![Lines of stress spread out uniformly across the surface of a piece of glass. Any surface defect can weaken the glass and reduce it to less than one percent of its theoretical value.](image)

To prevent surface defects, glassmakers use a process called *titanization*. While glass is still hot, it is coated with an organic compound of titanium. When this compound comes in contact with the hot glass, it is converted immediately into titanium oxide. As the glass cools, the titanium oxide actually dissolves into the surface of the glass, covering any defects and restoring the surface where cracks had formed.

**PROJECT**

Locate Scripture references which describe our need to be transparent to God’s Truth in order to transmit faithfully the light we receive.

*Date completed ___________________ Evaluation ___________________ 2011*
HOW DOES A LEGAL SYSTEM WHICH REJECTS LIGHT LEAD TO INTENSIFYING DARKNESS?

American society and government, including the judiciary, have abandoned the principles of God’s Word as the basis for law. Since judges no longer have a sound basis for making their decisions, one bad ruling usually leads to several others.

Jesus said, “...If therefore the light that is in thee be darkness, how great is that darkness!” (Matthew 6:23). Until recent years the light of the American legal system was the Scriptural principles upon which it was based, but as courts have departed from that light, the legal system has been plunged into a darkness that grows deeper every year.

In the early days of our nation, the foundation of jurisprudence was the common law, which is drawn from the principles of Scripture. Then during the second half of the nineteenth century a very significant shift started to occur. As most judges and lawyers came to regard the common law as less and less relevant, the light of God’s Word was gradually dimmed, then eventually snuffed out by the darkness of secular humanism.

[For a description of how this process took place, review the Law Resources in Wisdom Booklet 10, pages 391–394, and Wisdom Booklet 20, pages 891–898.]

What does “jurisprudence” mean?

Nowadays the term jurisprudence is commonly defined simply as “the science of the law.” The actual meaning of the term is far richer and more encompassing than that vague generalization. In the early days of our country, the true meaning of the word was clearly understood.

Noah Webster, for example, in his 1828 American Dictionary of the English Language, defined jurisprudence as “the knowledge of the law, customs, and rights of men in a state or community, necessary for the due administration of justice.”

The influential American lexicographer, Noah Webster (1758–1843), believed that “the study of jurisprudence, next to that of theology, is the most important and useful to men.”

That jurisprudence refers primarily to the administration of justice can be seen in the Latin roots of the term. *Juris* means “just or right,” and *prudentia* means “practical skill in the handling of business affairs.” Thus, explains John Whitehead, “jurisprudence has to do with the administration or weighing of justice or right values.”

In contrast, the influential Harvard law professor Laurence Tribe has written that the most essential function of the Supreme Court, in his opinion, “is not to conserve judicial credibility, but in the Constitution’s own phrase, ‘to form a more perfect Union’ between right and rights within that charter’s necessarily evolutionary design.” In other words, he thinks that the administration of justice is not as important as changing law to reflect the opinion of the majority at the moment.

What is “common law”?

Common law consists of the rulings of courts and judges down through the years in contrast to statutory law, the legislation enacted by various governing bodies. It was called common because it belonged to all the people. Not limited to any one nation, the common law was seen as a limitation of the arbitrary power of the king and the state.
For several centuries before the founding of the American republic, English judges decided cases on the basis of common law, thus creating a foundation for our modern legal system.

The framers of the U.S. Constitution explicitly indicated their acceptance of the validity of the common law in the Bill of Rights. The Seventh Amendment says, "... no fact, tried by a jury, shall be otherwise reexamined in any court of the United States than according to the rules of the common law."

Commenting on the common law definitions of the terms used in the Constitution, Supreme Court Justice Joseph Story declared in an 1820 ruling that they were "necessarily included as much as if they stood in the text" of the Constitution itself.

**What is a "precedent"?**

As the common law developed, judges made the effort to decide each case in a manner consistent with previous cases. A prior case that is similar enough to the case under consideration to serve as an example or an authority is called a precedent.

Although legal precedents exercise powerful influence over the way cases are decided, they are not necessarily binding on judges. In most cases the various precedents provide some guidance, but because none are identical to the situation in question, the prior rulings may even appear inconsistent or contradictory when applied to the case at hand. Therefore, a judge may "expand" the precedent, adjusting the decision to fit the perceived needs of the situation.

In addition, there are two other possibilities. Sometimes the matter to be decided is so completely different from any previous court decision that the judge realizes his ruling will set a new precedent. Conversely, at other times the case is so similar to the precedent that the judge must either adhere to it or be willing to overrule it.

Alexander Hamilton (1755–1804) said, "To avoid an arbitrary discretion in the courts, it is indispensable that they should be bound down by strict rules and precedents."

**What is the "doctrine of stare decisis"?**

The Latin phrase stare decisis (STEH-ree dih-SIE-sis) means "to adhere to or abide by previous decisions" (literally, "to stand by things decided"), and it is used to refer to the policy of the courts to follow legal precedents unless there are extenuating circumstances. Once a legal principle has been established, it should apply to all future cases in which the facts are substantially the same.

This doctrine functions in two dimensions: vertical and horizontal. Both the state and federal court systems have a chain of command such that the rulings of the highest court in a given jurisdiction control those of the courts below it. This vertical aspect results in stability, since a lower court cannot arbitrarily set aside or ignore the decisions of the courts above it.

The horizontal aspect comes into play when a court hands down a ruling but later, perhaps even many years afterward, begins to question its own precedent. Stare decisis is the legal principle which makes it difficult for a court to reverse its stand.

"The purpose of stare decisis," according to Russell Kirk, "is to ensure that even-handed justice will be administered from one year to another, one decade to another, one century to another; that judges will not be permitted to create laws or to decide cases arbitrarily, or to favor particular persons in particular circumstances. They must abide by the accumulated experiences of legal custom, so that the law will be no respecter of persons, and so that
people may be able to act in the certitude that the law does not alter capriciously."

In a 1958 dissent, Justice Felix Frankfurter rejected the notion that the justices may "say that everybody on the Court has been wrong for 150 years and that that which has been deemed part of the bone and sinew of the law should now be extirpated. . . . It is not for the Court to fashion a wholly novel constitutional doctrine . . . in the teeth of an unbroken and judicial history from the foundation of the Nation." [Green vs. United States] His observation is certainly true.

What is the Scriptural basis of jurisprudence, common law, precedents, and stare decisis?

When Justice Story was made a professor of law at Harvard in 1829, he commented in his inaugural address on the Biblical basis of the common law: "There never has been a period of history in which the Common Law did not recognize Christianity as lying at its foundation."

Essentially the common law is the application of Scriptural principles, especially the Ten Commandments, to specific situations.

One writer even called the common law "the product of a union between universal Christian laws and local customs."

Because it was based on Scripture the common law could serve as that higher law to which even the king and the government were accountable.

Thus, regarding jurisprudence as legal science was acceptable until the principles of science became contaminated by Darwinism. As people accepted the theory that man has evolved, they then assumed that society's moral standards and codes of behavior undergo an evolutionary process as well. Having rejected God as their authority, they saw no reason for their leaders to be accountable to any written law that the public deemed irrelevant. When the tenets of evolution began to be applied to the law, the Scriptural foundations of the law were rapidly eroded, and darkness began to cloud the legal vision of judges, lawyers, and the populace.

Common law was a law of precedents, but it was universally understood that the principles underlying the precedents were those of God's Word. Thus, the basis for stare decisis was not that the courts were infallible but that the absolutes of the higher law were unchanging.

Chief Justice William Rehnquist, echoing the sentiments of several contemporary justices, has said: "There are undoubtedly circumstances which require a Member of this Court 'to bow to the authority' of an earlier case despite his 'original and continuing belief that the decision was constitutionally wrong.'" Without the Bible as the final reference point, stare decisis cannot be applied properly.

The Scriptural principles themselves do not vary even though they may result in a variety of applications when brought to bear on different situations and cases. Therefore, the justification for a court reversing itself should not be that the makeup of the court has changed, as happens, for example, when a more liberal justice replaces a more conservative one on the Supreme Court bench.

Nor should the fact that public opinion on an issue has shifted over the years be considered an acceptable reason for striking down a precedent. The only valid basis, then, for a court to reverse a prior ruling should be the determination that Biblical principles were misapplied in that ruling.

In fact, when the courts began to shift from law based on principle to law based on opinion (either that of the judge or that of the public), darkness entered the legal system in the form of rulings which were contrary to Scripture. These decisions became precedents for later rulings that have brought even greater darkness.
As a nation we have, to an alarming extent, been moving away from the light of Scriptural principles into the darkness of man's opinions.

CASE 1:

In 1941 the case of a young man named Mr. Kauten reached the Second Circuit Court of Appeals. Mr. Kauten was a "conscientious objector." In other words, he was asking to be excused from military service because taking up arms to defend his country would violate his conscience.

Although he argued that it was a matter of religious conviction, he admitted that his appeal was not based on a belief in Deity. Since he did not believe in God, Mr. Kauten's "faith" did not fit the criteria of a religion as spelled out in the Selective Service Act of 1940.

How do you think the judges on the federal court ruled?

A. They rejected Mr. Kauten's appeal on the grounds that the Act allowed exemptions only for those whose religion was clearly connected to belief in a Supreme Being.

B. They granted him the exemption by broadening the definition of religion to include beliefs outside the Judeo-Christian tradition.

C. They denied an exemption on the basis of the precedent set in the 1878 case against Mormon polygamy. At that time the Supreme Court held that "religion" in the Constitution meant Christian theism exclusively.

The judicial darkness of our day takes many different forms. Three of the most obvious are exalting rights above responsibility, twisting the meaning of Constitutional terms, and seeking fairness rather than justice. Court cases in the areas of freedom of religion, capital punishment, and rights of the accused illustrate the trend.

1 The darkness comes as "freedom of religion" is distorted to mean "freedom from religion."

The federal court ruling in United States vs. Kauten (1941) agreed with the defendant's assertion that his belief was indeed a "religion." The court said, "Religious belief arises from a sense of the inadequacy of reason as a means of relating the individual to his fellow men and to his universe. . . ."

The judges went on to say that conscientious objection "may justly be regarded as a response of the individual to an inward mentor, call it conscience or God, that is for many persons at the present time the equivalent of what has always been thought a religious impulse."

The darkness that infiltrated the judiciary through this ruling becomes evident when it is compared to the Supreme Court precedents which it reversed.

Reynolds vs. United States (1878) was the first time the high court took upon itself the task of defining "religion" as used in the First Amendment. George Reynolds, a Mormon, challenged congressional legislation outlawing bigamy in any territory under the jurisdiction of the federal government. He was convicted but appealed, claiming that he had a First Amendment right to practice polygamy as a tenet of his religion.

In refusing to overturn Reynolds' conviction and in a similar case (Davis vs. Beason) twelve years later, the Court stuck to a definition of religion that was consistent with the intent of the framers of the Constitution and which had also been universally accepted since that time, even by non-Christians.

James Madison, fourth President of the United States, called religion "the duty which we owe to our Creator, and the manner of discharging it."
The justices wrote in *Davis*: “The term ‘religion’ has reference to one’s views of his relations to his Creator, and the obligations they impose for reverence for his being and character, and the obedience of his will.” Speaking from this solid Biblical base, the Court ruled in both cases that plural marriages were not protected by the Bill of Rights.

Not surprisingly, *Macintosh* was overruled just five years after *Kauten* had changed the legal definition of religion to include beliefs in addition and contrary to the Christian theism upon which this republic was founded.

Once the Godly precedents were torn down, the judicial darkness spread rapidly. In 1944, for example, the Supreme Court ruled that in freedom of religion questions it did not matter what a person believed as part of his “faith” as long as he held it sincerely. [*United States vs. Ballard*] Therefore, the courts could no longer examine the truth of a person’s beliefs, no matter how bizarre or anti-Biblical. This is clearly a humanistic, man-centered concept of religion as opposed to a Scriptural, God-centered one.

In fact in 1961, when the Court invalidated part of the constitution of the state of Maryland that had required all state officials to declare their belief in God, one of the nontheistic religions mentioned specifically was secular humanism.

In another conscientious objector case, *United States vs. Seeger* (1965), the Court issued a ruling that made the darkness even deeper. Relying on the writings of various progressive theologians, the justices concluded that a belief is valid if it is “sincere and meaningful [and] occupies a place in the life of its possessor parallel to that filled by the orthodox belief in God. . . .”

Paul Tillich, the German-American theologian whose philosophy greatly influenced the Seeger ruling, believed that religion is founded not on God but on an individual’s “ultimate concern.” He said this ultimate concern or “ground of all being” is what defines God. To redefine God, however, “you must forget everything traditional that you have learned about God, perhaps even that word itself.”
Under this new definition, even atheism and agnosticism came to be included in the term “religion.”

Working from these faulty precedents regarding the meaning of religion and its relationship to law and government, the courts have handed down numerous decisions that have intensified the darkness. One example would be *Stone vs. Graham* (1980), in which the Supreme Court struck down a Kentucky statute which said that the Ten Commandments were to be posted in every public school classroom in that state.

Ignoring the obvious historical significance of the Decalogue (even from the secular point of view), the justices ruled that displaying it in this manner might “induce the school children to read, meditate upon, perhaps to venerate and obey the Commandments.” If that were to happen, they argued, then the posting would be a form of state-sponsored religious indoctrination and, therefore, a violation of the First Amendment.

How ironic it is that the very amendment adopted over two hundred years ago to prevent the federal government from interfering with the states in matters of religion has now been turned into a mandate for that same federal government, through its highest court, to dictate what is and what is not religion, as well as what the states may and may not do in relation to it. [See Wisdom Booklet 33, pages 1663-1665, for additional information on the separation of church and state.]

The Court’s direction in these cases has tended to confirm the truth of Chief Justice Roger Taney’s statement in 1849: “If in this Court we are at liberty to give the old words new meanings when we find them in the Constitution, there is no power which may not, by this mode of construction, be conferred on the general [federal] government and denied to the States.”

2 The darkness intensifies as fairness is made more important than justice.

At the same time darkness was clouding the issue of religious freedom, a similar obscurity began to affect the criminal justice system.

Following the precedents of English common law, the death penalty for certain crimes was an accepted part of the legal structure of the colonies and, later, the states. During nearly two centuries of constitutional government, this acceptance was never challenged.

In the 1878 case of *Wilkerson vs. Utah* the Supreme Court unanimously affirmed that capital punishment was not contrary to the Constitution’s ban of “cruel and unusual punishment.” Their reasoning—that the death penalty is a normal punishment for murder—was Scripturally sound.

A tract published in 1812 on the day two murderers were executed in Boston exhorts young people to avoid a life of crime. At that time in U.S. history capital punishment was almost universally accepted as just and right.
However, in 1910 the Court handed down a decision that because of its faulty reasoning became a favorite of the abolitionists of the death penalty.

The ruling in *Weems vs. United States*, which was the first time the Court invalidated a penalty established by the legislature for a specific crime, has created problems in two ways.

First, the majority opinion was based on a theory of proportional punishment: "It is a precept of justice that punishment for crime should be graduated and proportioned to the offense." Such a theory can be supported by neither the facts of history nor the common law. Furthermore, the proportionality argument cannot logically be used to favor abolition since the ruling tacitly approved the precedent of *Wilkerson*.

Second, the justices wrote: "Time works changes, brings into existence new conditions and purposes. Therefore, a principle to be vital must be of wider applications than the mischief that gave it birth." What the Court did in *Weems* was not applying an accepted principle to new facts but actually replacing a principle with a new principle of its own making. This is essentially what abolitionists do when they try to use the "cruel and unusual punishment" clause to make capital punishment unconstitutional.

Nearly a half century later, Chief Justice Earl Warren declared in *Trop vs. Dulles* (1958) that "the death penalty has been employed throughout our history, and, in a day when it is still widely accepted, it cannot be said to violate the constitutional concept of cruelty."

Even though Mr. Warren's conclusion was correct, the basis of his argument was flawed.

He was saying that capital punishment was constitutional merely because most citizens endorsed it as morally right at that particular point. This idea, of course, opened the way for abolishing the death penalty whenever public opinion (as the Court perceived it) should change at some time in the future.

That time, so it seemed, had come in June of 1972 when the Supreme Court handed down its controversial decision in *Furman vs. Georgia*. Although the ruling did not declare capital punishment itself unconstitutional, the immediate effect was to nullify almost all the states' death penalty laws.

The high Court was divided five to four, and every one of the five justices in the majority issued a separate opinion, each citing a different rationale for the ruling. The basic thrust of their arguments was that capital punishment was not being administered with fairness and, therefore, should not be administered at all.

The consequence of what one of the dissenting justices called "the shattering effect this collection of views has on the root principles of stare decisis" was a great deal of confusion about how a capital punishment statute would have to be constructed in order to be acceptable to the Court. Almost immediately, thirty-five of the states passed new legislation which they hoped would meet with the Supreme Court's approval. This clearly indicates that public opinion, at least as expressed by the elected representatives in state after state, had not changed on this issue, but that the opinions of the justices themselves had shifted.

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**To what extent do judges' personal views influence their judicial decisions?**

The autobiography of Justice William O. Douglas is quite revealing on this point. He writes that he finally had to admit to himself "that the 'gut' reaction of a judge at the level of constitutional adjudications dealing with the vagaries of due process...was the main ingredient of his decision." He went on to say, "The admission of it destroyed in my mind some of the reverence for immutable principles."

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William Orville Douglas
1898–1980
Three years after Furman several of these new state laws concerning capital punishment were evaluated in the case Gregg vs. Georgia (1976). The Court was attempting to establish certain standards that could be applied with fairness in sentences for capital crimes. The result was even greater confusion.

Some states drew up lists of "aggravating" and "mitigating" circumstances that were to guide juries in whether or not to impose the death penalty. In actual practice these guidelines gave juries discretion as much as or more than they had before.

Ten states went to the other extreme and imposed mandatory death sentences. This action did not do away with jury discretion, however, because in most cases the defendant could be found guilty of a lesser crime that would not automatically send him to death row. Eventually, the Court ruled that these mandatory death sentences were illegal.

By 1980 the same justices who had previously argued in favor of setting standards admitted that "the task of selecting in some objective way those persons who should be doomed to die is one that remains beyond the capacities of the criminal justice system." [Godfrey vs. Georgia (1980)]

They went on to say, "The enterprise on which the Court embarked in Gregg . . . increasingly appears to be doomed to failure." The solution, according to the abolitionists, is simply to get rid of the death penalty altogether.

The magnitude of judicial confusion generated by these decisions is clearly reflected in the death penalty statistics since 1972.

In the decade following Gregg, the number of individuals on death rows around the country increased by more than two hundred per year.

Even though more people were sentenced to die, the percentage who actually died in the electric chair, in the gas chamber, or by lethal injection fell to less than 2 percent of the death row population.

CASE 2:

Not long after midnight one night, twenty-year-old Barry Braeseke called the Oakland, California police station to report that his parents and his grandfather had been shot dead. Arriving at the Braeseke home, police could find no evidence of a forced entry, but they noticed blood on Barry's pants. A further cause for suspicion was that the information he gave the officers was not entirely consistent, so they decided to take him into custody.

As they arrested the young man, the policemen read him the list of Miranda rights as required by the Supreme Court. He was told that he did not have to answer questions, and, if he did, that anything he said could be used against him. He had a right to an attorney, whether or not he could afford to pay one.
At the police station, when the sergeant who was booking Barry asked him the name of his next of kin, he did not answer at first.

After a few moments of silence, the suspect requested to speak “off the record” and asked the officer what would happen to him if he really had committed the murders. He was told that he would go to prison.

Then the officer asked Barry if he would make a statement on tape. When he agreed, he was advised of his rights once more. He admitted that he had killed his mother and father and grandfather in order to get a $200,000 inheritance. He was tried and convicted of the crime.

How did the judges rule when Barry’s lawyer appealed the case?

☐ A. They upheld the conviction.

☐ B. They refused to hear the case because it would have been double jeopardy.

☐ C. They overturned the conviction because of the circumstances under which Barry confessed.

☐ D. They allowed the conviction to stand due to the doctrine of stare decisis but shortened his sentence.

3 The darkness deepens as “rights” are allowed to overshadow responsibility.

The judges on the court of appeals ruled Barry Braeseke’s conviction invalid and threw it out, holding that his decision to waive his rights was not “knowing and intelligent.”

No one questioned the fact that the young man had indeed committed the murders. Even the attorney who defended Barry felt that justice had not been done. When the Supreme Court refused to hear the case, this attorney sent a letter of protest. “A system of laws conceived to help innocent people,” he wrote, “can become twisted to give freedom to a person who deliberately kills three innocent human beings and confesses four times.”

Yet the appeals court had simply followed the precedent established in the landmark case of Miranda vs. Arizona.

In 1966, the Supreme Court overturned the conviction of Ernesto Miranda (right) who had confessed to the crimes of kidnapping and rape.

The justices ruled five to four that the confession of Ernesto Miranda could not be used in court because the way it was obtained violated the Fifth Amendment prohibition against self-incrimination: “No person . . . shall be compelled in any criminal case to be a witness against himself.”

Chief Justice Earl Warren, in writing the majority opinion, called police interrogations “inherently coercive” and indicated that the Court would consider as involuntary all confessions from suspects under arrest unless the police warned them of their rights in advance. Whenever a suspect waives his right to remain silent, said the Court, the prosecutor must prove that decision to have been “willing, knowing, and intelligent.”
According to policies established by the ruling in the Miranda case, this police interrogation must stop whenever the suspect indicates that he does not wish to answer any more questions.

The dissenting minority predicted that the Miranda ruling would have the effect of allowing criminal defendants who would otherwise have been convicted to escape trial or to be acquitted. "In some unknown number of cases," wrote Justice Byron White, "the Court's rule will return a killer, a rapist or other criminal to the streets . . . to repeat his crime whenever it pleases him."

Justice White's prediction has proved to be accurate. Miranda and related rulings have allowed many lawbreakers to escape punishment altogether.

In the same way that night falls gradually as the sunset fades, the judicial twilight seen in Miranda had been developing for several years. In a number of cases prior to 1966, the Court had been moving toward making fairness more important than justice. This tendency to focus on legal rights instead of responsibility is obvious in various earlier rulings.

In Mallory vs. United States (1954) the conviction of another confessed rapist was reversed because he had been questioned by police prior to arraignment. Then a series of cases in the early 1960s reaffirmed and extended the constitutional right of the accused to have a lawyer.

Danny Escobedo was convicted of the murder of his brother-in-law on the basis of his own confession. In 1963 the Supreme Court reversed the conviction because Escobedo had not been allowed to talk to his lawyer before being indicted.

Certainly, being represented by an attorney in court is a privilege that is well worth protecting, but the problem in these rulings was that the Court was heading in the direction of protecting the rights of criminals at the expense of requiring them to be responsible for their sinful acts.

The darkness of the Miranda ruling predictably resulted in more darkness both in terms of the effectiveness of law enforcement and the soundness of judicial decisions.

Statistics from the Federal Bureau of Investigation show that before Miranda the police were able to solve over 90 percent of the murder cases in the country. By the mid-1980s their effectiveness had dropped so that 28 percent of murders remained unsolved. According to one experienced prosecutor, many big cases are not solved because, with the Miranda warnings, police talk the suspect out of admitting anything.
The results of the *Miranda* precedent are no less devastating in the judicial area, as the courts have bent over backwards to protect the rights of the defendant even if he chooses to talk.

In one California case a man freely admitted in court that he had slit the victim's throat and watched her die. He even told the jury he knew he deserved the death penalty. His attorney, who had warned him not to say those things in court, appealed the conviction. The appellate judges overturned the lower court decision, allowing the killer to go free. They ruled that a defendant may not plead guilty if his lawyer does not agree to it.

During another murder trial in the same state, a man freely confessed that he had committed the crime. Even though he had his lawyer's permission to plead guilty, his conviction was also reversed on appeal. This time the ruling declared that the attorney was incompetent for allowing the defendant to plead guilty and that the lower court judge had been wrong to even accept such a plea!

Since the Constitution has been divorced from its Scriptural foundations, the courts have lost the objective basis they once had for interpreting what the Founding Fathers intended. As one law professor explained: "The Constitution does not say we must prevent a criminal suspect from making a dumb or unwary or uninformed confession, only that we must prevent him from making a coerced or compelled one. If he decides to tell the truth, however stupid or uninformed the decision might seem to civil libertarians, we should rejoice. If a scoundrel is found guilty, justice is done, not undone."

Even in the early years of the nineteenth century, Thomas Jefferson foreseen great problems arising from the Supreme Court's setting itself up as the final authority, overemphasizing rights as opposed to responsibilities, and upsetting the federal system of checks and balances by taking over legislative and executive functions.

In 1821 Jefferson wrote: "The germ of dissolution of our federal government is in the constitution of the federal judiciary; an irresponsible body—

for impeachment is scarcely a scarecrow—working like gravity by night and by day, gaining a little today and a little tomorrow, and advancing its noiseless step like a thief, over the field of jurisdiction, until all shall be usurped from the States, and the government of all be consolidated into one.

"To this I am opposed; because, when all government, domestic and foreign, in little as in great things, shall be drawn to Washington as the center of all power, it will render powerless the checks provided of one government of another, and will become as venal and oppressive as the government from which we separated."

The infiltration of secular humanism into our legal system has brought a darkness that will only grow deeper if the present trends continue.

**PROJECT**

Analyze the infamous 1973 Supreme Court case *Roe v. Wade* (which legalized abortion) in relation to the three sources of legal darkness mentioned in this resource (redefining terms, seeking fairness in place of justice, and exalting rights rather than responsibilities). How did each of these three factors contribute to that ruling?

Now consider the following cases that used *Roe* as a precedent. How did they succeed in making the darkness deeper?

1. (1) **Planned Parenthood v. Danforth** (1976) ruled that the state could not require the consent of the father of the unborn child in order for the mother to have an abortion.

2. In *Carey v. Population Services International* (1977) the Court struck down as unconstitutional a state regulation that prohibited the sale of contraceptives to children under age seventeen.

3. Again in 1979 the Court nullified a state law. *Bellotti v. Baird* declared that the state could not require written parental consent for an unmarried girl to have an abortion.

*Date completed____________ Evaluation____________*
HOW DO ABNORMAL EYE CONDITIONS ILLUSTRATE CAUSES OF SPIRITUAL DARKNESS?

When an ophthalmologist or an optometrist looks into the eye of a patient, he can observe many clues to the health of the entire body.

Imagine living in a family in which your father, mother, brothers and sisters were blind, and all your neighbors were blind. What might it be like if all the people in your city or state were also blind? What might it be like if a whole country were blind or if everyone’s vision were so clouded that no one could work or drive a car?

Today there are approximately twenty-eight million people in the world who are totally blind. Another fourteen million have 20/200 vision or worse. That adds up to forty-two million people in the world who live in complete or partial darkness. 20/200 vision means that a person can see at twenty feet what others can see from two hundred feet. For practical purposes such as driving or working, a person with 20/200 vision is considered legally blind.

Forty-two million people is more people than the population of the states shaded in this diagram.

If all the blind people in the world lived in the states shaded above, they could control approximately eighty-five seats in the House of Representatives and fifty seats in the Senate.

Yet, Satan has blinded even more people than that spiritually. He has blinded some so completely that they live in total darkness. Others suffer from clouded vision which distorts their spirits and prevents them from leading fruitful lives.

Learn how physical afflictions of the eye illustrate six ways that Satan attempts to cloud our spirits and fill us with darkness.

1 SCARRING

The cornea is the fibrous window which makes up the anterior-most portion of the eyeball. Normally the cornea is perfectly clear. Light passes through it without being absorbed because it has no blood vessels running through it. The absence of blood helps assure that the cornea is transparent, but it also necessitates that the cornea obtain its oxygen directly from the air.

The lack of blood also makes the inner layers of the cornea very slow to heal and extremely susceptible to scarring. Without blood, many cells within the cornea cannot repair themselves. If injured, they are replaced with opaque scar tissue which absorbs light and clouds vision.

The cornea is a clear protective covering that can be seen only by looking at the eye from the side. From the front it is completely invisible.
Because of its curved shape, the cornea bends light. Its light-bending properties account for about two-thirds of the eye's focusing power. Scar tissue, especially small scars may alter the shape of the cornea, causing a person to become either nearsighted or farsighted.

**Anatomy of the cornea**

The cornea is composed of relatively few cells arranged in six distinct layers. These layers include an outer film of tears, an epithelium, Bowman's membrane, the stroma, Descemet's membrane, and an endothelium. Its only source of nourishment to regenerate damaged cells is a liquid which bathes the posterior (back) side and tears which bathe its anterior (front) side.

The film of tears which covers the cornea is itself made up of three distinct layers. The outer layer is very oily. This oil retards evaporation of the other tear layers and adheres to foreign particles so the eyelid can wipe them away.

Beneath the oily layer is a watery layer which moistens the cornea and fights bacteria with an enzyme called lysozyme (LIE-suh-zime). The innermost layer is called the mucoid layer. It provides nourishment for the cornea so there is no need for blood to enter the otherwise transparent tissue. The presence of blood in the cornea is clear evidence of injury or infection.

Like a piece of glass, irregularities on the surface of the cornea or any of the layers in between can distort the passage of light rays and cloud vision.

The epithelium is usually only about five cells thick. These cells are arranged systematically, like the bricks in a wall. Each cell fits up against the other cells so tightly that bacteria and viruses cannot penetrate the seal.

Under the protective epithelium lies what is called Bowman's membrane, in honor of an English ophthalmologist who lived from 1816 to 1892. Because this layer of the cornea has no capacity to repair itself, any damage to it produces scar tissue which can cloud vision.

The stroma is the thickest layer of the cornea. It is made up mostly of parallel collagen fibers which surround the main corneal cells and hold them in place.

Descemet's (DESS-uh-maze) membrane, named after a French physician who lived from 1732 to 1810, forms the smooth posterior (back) surface of the stroma. Unlike Bowman's membrane, Descemet's membrane is elastic and very resistant to injury and disease.
Finally, the posterior side of the cornea is sealed with a single layer of flattened cells called the endothelium. The endothelium absorbs nutrients from the fluid of the anterior chamber directly behind the cornea.

**Failure to remove scars promptly may cloud vision permanently or produce total blindness.**

A major cause of blindness and impaired vision is corneal ulceration and scarring which may result from injuries, scratches, contact lens abrasions, or excessive rubbing. On an arm or leg such scars are usually insignificant; however, on the cornea even a small scar which absorbs light can cast a thin shadow across the eye.

Injuries that scratch only the epithelium usually do not result in scarring. However, injuries which affect Bowman’s membrane or the stroma do not heal without forming scars.

Corneal scars are categorized as nebulae, maculae, and leukomas. Nebulae are slight scars that can be seen only under a microscope. Maculae are denser scars that can be seen by the unaided eye. Leukomas are dense scars that are completely opaque to light.

Foreign substances such as silver, copper, or iron may discolor the cornea. Silver often turns the cornea black. Copper may produce red or green pigments. Iron, shown in the cornea above, has clouded vision with its brown stain.

2 **INFLAMMATORY REACTIONS**

Directly behind the cornea lie two chambers. The first chamber, called the anterior chamber, separates the cornea from the iris. The second chamber, the posterior chamber, separates the iris from the lens. The circular hole that connects the two chambers is called the pupil.

Both the anterior and posterior chambers are filled with a fluid called aqueous humor. Aqueous means “watery,” and humor is Latin for “liquid.”

**Anatomy of the anterior and posterior chambers**

The pressurized aqueous humor keeps the cornea “inflated” to its proper shape and flows from the posterior chamber into the anterior chamber through the pupil. Glands in the posterior chamber secrete aqueous humor to replace the fluid which drains out of the eye through the Canals of Schlemm.
Reactions to infections, allergies, and injuries may do more damage to the eye than the original irritation.

Irritants often cause the eye to water, turn red, and itch. Soothing ointments, antihistamines, and antibiotics are usually able to clear these conditions. However, if left unchecked, the eye may react so severely that the inner linings may also become inflamed and swollen.

Blood vessels can grow into the transparent cornea like a spiderweb. Phagocytic white blood cells arrive on the scene, and in some instances there may also be large numbers of dead or dying white blood cells and tissue floating in the aqueous humor.

These by-products of inflammation deflect light from the eye and cloud vision. Their reflective properties cause the eye to sparkle when a doctor shines light into it—a condition known as aqueous flare.

Reactions may also clog the exits through which aqueous humor flows out of the eye. Normally, the eye maintains an even pressure inside itself by regulating the amount of aqueous humor it produces. However, a swollen iris which blocks the flow of aqueous humor can cause the pressure inside the eyeball to rise dramatically.

This condition is referred to as acute secondary glaucoma. The pressure from this condition often produces secondary reactions that do more damage to the eye than the original irritation.

Increased pressure within the eye squeezes delicate nerve fibers at their point of entry into the eyeball, causing them to deteriorate. The all-important optic nerve which carries visual impulses to the brain may become cupped as the pressure literally pushes the nerve out of the eye. In advanced cases, glaucoma can completely destroy the optic nerve and produce total blindness.

Doctors measure the pressure in the eye with an instrument called a tonometer (tuh-NAHM-uh-ter).

3 IRREGULARITIES

As light passes through the cornea, the anterior chamber, and the pupil, it eventually reaches the lens of the eye. The lens is a flexible, transparent ball about the size of a pea.

The lens is held in place by ligaments called the Zonules of Zinn. These ligaments are attached to a ring of muscles called the ciliary body. The zonules work like the spokes of a bicycle wheel, which attach the axle (lens) to the outer rim (ciliary body).

As the ring of muscles contracts, the rim shrinks and the zonules relax. This makes the lens rounder and allows it to focus light from nearby
objects. As the ring of muscles relaxes, the rim expands, pulling the zonules taut and flattening out the lens so it can focus light from distant objects.

This process is called accommodation. Accommodation allows the eye to focus on, and therefore see clearly, objects as close as a few inches and as far away as the stars.

**Anatomy of the lens**

Under a microscope, the lens appears to be a clear, structureless round ball. However, special stains reveal a thick capsule that surrounds the lens and gives it shape. Underneath the tough capsule is a thin layer of epithelial cells only one cell thick. Before birth these cells begin producing long, thin fibers which make up the central part of the lens.

![Cross Section of the Lens](image)

This model of an adult lens reveals the layered structure which makes it so pliable.

When magnified eight hundred times, the lens appears as a very orderly arrangement of cell layers.

**A disruption of the orderly structure of the lens produces cataracts.**

Unfortunately, any irregularities in the layers of the lens capture light and cast a shadow of darkness across the eye. In fact, every individual has hundreds or perhaps even thousands of microscopic irregularities in his eyes which absorb light and cloud his vision. These irregularities are called cataracts.

Most cataracts are too small to cause major problems. However, approximately one out of every ten people over the age of sixty-five has major cataracts which require treatment.

No one knows for sure what causes a cataract. Ophthalmologists have discovered, however, that as a cataract forms, calcium and sodium concentrations...
increase, and potassium, protein, and vitamin C concentrations decrease.

One of the primary factors associated with these changes is exposure to ultraviolet (UV) light. Recent research has demonstrated that in areas where there are long periods of strong sunlight, there is a marked increase in the incidence of cataracts.

Most UV light from the sun is filtered out by the molecules of ozone in the earth’s atmosphere. However, enough UV light reaches the surface, even on cloudy days, to cause sunburn, skin cancer, and cataracts.

Welders must wear protective lenses to block out the intense glare of ultraviolet light which the welding process emits. Welders who do not wear protective lenses show a marked increase in cataracts. Blows to the eye can also produce cataracts.

Doctors believe that the harmful effects of UV light are cumulative. That is to say that exposure to seemingly insignificant doses of UV light over long periods of time can have the same effects as large doses over a short time. This fact suggests that any exposure to UV light may, in fact, cloud a lens at least microscopically. It is only after the resulting cataracts become large enough to cloud vision that people become aware of the damage.

Many types of cataracts are progressive. This means that one irregularity seems to trigger others around it. Once a progressive cataract starts, there may be little a doctor can do to prevent the entire lens from losing its transparency. In these cases the only treatment is to remove the lens and replace it with cataract glasses, contact lenses, or an intraocular lens.

4 IMBALANCES

Vitreous humor fills the eyeball behind the lens. Unlike the watery aqueous humor in front of the lens, the vitreous humor is a thick gel.

Like the aqueous humor, however, the vitreous humor is also under pressure. Its pressure must precisely match that of the aqueous humor in order to keep the eyeball in proper balance. Serious visual problems result if for any reason the vitreous humor loses its pressure or leaks out.

Anatomy of the vitreous humor

Vitreous comes from the Latin word vitrum, meaning “glass.” While mostly water, the vitreous humor contains long collagen fibers which “glue” it together and give it its gel-like texture.

Unfortunately, these fibers cannot repair themselves. If they are damaged, the vitreous humor turns into a watery substance which cannot maintain pressure in the eye. Therefore, the vitreous humor, which develops before birth, must last a lifetime.

The vitreous humor is encased by the hyaloid membrane. This membrane lines the posterior side of the lens and helps hold the lens in place. The rear surface of the vitreous humor rests against the retina. Here the collagen fibers that give the vitreous humor its form help to hold the retina in place.

The vitreous humor also contains two different acids: hydrophilic ([high-dro-e-FILL-ick], from Greek, meaning “that which loves water”) acid and hyaluronic ([high-al-yuh-RONN-ick]) acid. These acids maintain a balance within the vitreous humor that preserves its structure. If there is ever too much or too little of either acid, the vitreous humor can lose its “stiffness” and collapse.
Imbalances may produce distracting “floaters.”

Collapsed vitreous humor may also pull so hard on the retina that it tears. When torn, the retina bleeds profusely, and the blood mixes with the vitreous humor. Normally the transparent vitreous humor allows light to pass through it without alteration. However, if blood leaks into the vitreous humor, a person may experience what are commonly called “floaters.”

Floaters may be individual blood cells, blood clots, or actual pieces of the torn retina. They can appear as round spots, black streaks, or cobwebs. Their medical term is *muscae volitantes* (MU-sky wo-le-UH-tahn-tace), which is Latin for “flies that flutter to and fro.”

Floaters produce shadows on the retina which continue to move even after the eye comes to rest. The slightest motion stirs them up and keeps them “fluttering” across a person’s field of vision. As the floaters move through the gel of the vitreous humor, momentum keeps them moving in one direction while the eye may move in another direction. This can be very distracting, especially when looking at the white pages of a book or at scenes in bright sunlight.

Floaters may not be due to any particular disease process or degeneration and are usually no more than a nuisance. Yet, they may be symptomatic of major imbalances in the body, particularly if they are of sudden onset. For example, diabetes causes an imbalance in the sugar levels in a person’s body. This imbalance often causes blood vessels to proliferate along the inner surface of the eye. These blood vessels are usually quite thin and are apt to burst, spilling blood into the vitreous humor. When this happens, the vitreous humor turns red, and the misplaced blood clouds the vision.

If the vitreous humor becomes clouded, blinding the eye, doctors may propose a surgical procedure in an effort to restore vision. Using a *rotoextractor*, they may fill the eye with a replacement solution as they remove the clouded vitreous humor. Such a procedure is called a *vitrectomy*.

**5 TENSION**

The retina is actually an extension of the brain. In fact, it is like a window opened outward to face the world. It consumes as much oxygen and nourishment as any other part of the brain and is connected directly to the brain with millions of nerve fibers. The retina has ten distinct layers even though it is less than 0.4 millimeters thick.

These layers are attached to one another so delicately that they are easily separated under stress. Unfortunately, any separation between the layers of the retina breaks their connection to the brain and clouds vision.

**Anatomy of the retina**

Ophthalmologists call the nerve endings in the eye which respond to light *rods* and *cones*. Rods allow us to see in dim light and specialize in distinguishing shapes and movement. Cones allow us to see detail and color.

Rods and cones actually face away from the direction of light. Their tips are immersed in a dark pigment called *visual purple*. Visual purple contains...
molecules of vitamin A, rhodopsin, and opsin. As the visual purple absorbs light, chemical changes take place among these molecules, stimulating electrical impulses in the rods and cones.

**CROSS SECTION OF THE RETINA**

There are about 7,000,000 cones and up to 140,000,000 rods in each eye. The cones are most densely concentrated in the optical center of the retina, called the macula or fovea. Rods are not formed in the center of the macula, but are present toward its periphery.

According to one of the theories of vision, light straightens the normally angular bonds that hold the molecules of vitamin A together. As the bonds straighten, vitamin A "unsnaps" from the rhodopsin molecules to form molecules of opsin.

These chemical changes disrupt the electrical field around the nerve endings of the retina and the electrical impulses are sent to the brain by way of the optic nerve. As each successive photon of light snaps apart a rhodopsin molecule, the rods and cones pick up the electrical impulse and send it to the brain.

Shortly after the light passes, the vitamin A molecules return to their normal "bent" shape. These molecules then snap back in place on the opsin molecules to re-form molecules of rhodopsin. When light strikes the pigment again, the cycle repeats itself and stimulates another rod or cone. In bright light, rods cease to function because they cannot snap and unsnap fast enough.

Visual purple contains at least seven different pigment molecules, all of which play a part in the complex chemical cycle which converts light into electrical signals.

**Separation between members always occurs at the weakest point and is often accompanied by showers of "fireworks."**

Retinopathy comes from the words rete, a Latin word meaning "net," and πάθος (PATH-oss) a Greek word meaning "suffering or disease." Retinopathy is a general term which refers to any abnormal condition of the retina.

The weakest interface among the layers of the retina occurs between the layer of rods and cones and the pigmented layer beneath them. This interface tears so easily that even a minor fall can sometimes cause it to separate.
As the two layers separate, the tearing stimulates rods and cones artificially. This condition gives the impression of flashing lights before a person's eyes—a condition called photopsia. Sudden blows to the head can also stretch the retina, producing "stars." Even rapid eye movement can generate enough inertia to tear an already injured retina and cause "streaks of light" to cross one's eyes.

Once a separation begins, it must be treated very carefully. Treating the separation too aggressively may make the tear worse. On the other hand, neglect may allow the separation to widen. Unfortunately, the gap between the torn layers of the retina usually fills quickly with fluid. This process forms a bubble that holds the two surfaces apart and prevents them from re-attaching spontaneously.

Since the macula has no blood supply of its own, it must depend on contact with the pigmented epithelium for nourishment. If separated even briefly, it may suffer irreparable damage. On the other hand, the retina beyond the macula has its own supply of blood vessels and can remain healthy for quite some time. Even after several months it can be re-attached and often recovers remarkably well.

When a retinal detachment spreads slowly, the person may be completely unaware of any problem. He often loses his peripheral vision without even realizing it. His first awareness of any darkness comes as the fovea (macula) is affected.

This is the area of detail where we focus on what is important to us. By ignoring the growing darkness in the periphery of our visual field, we run the risk of losing our sight altogether.

Ophthalmologists treat torn or detached retinas by "welding" them back in place with scar tissue. Scar tissue creates a tiny blind spot on the retina, but securely anchors the retina and prevents it from tearing any further. To make a scar, the ophthalmologist usually cauterizes a tiny portion of the retina.

The word cauterize comes from the Greek word καυτηρίμαζον (kow-tay-ree-AHD-zoe), which means "to brand with a hot iron." The process actually destroys a section of the retina in order to stimulate the body to produce scar tissue, which can bind together what the original retina could not.

An enlarged picture of the retina reveals that the macula (fovea) has no blood supply of its own; it receives nourishment from neighboring tissue. If separated from that nourishment, it shrivels and dies. Separation leads to isolation, and isolation, to darkness.

As the retina separates from its pigmented base, a curtain of darkness appears to fall over a person's visual field. Without direct contact between rods and cones and the underlying pigment, there is no chemical stimulation to generate sight. There is only darkness.

A laser beam burns the retina without harming other parts of the eye. An ophthalmologist can also freeze the retina with a super-cooled probe or shock it with an electrical needle. These procedures are called photocoagulation, cryosurgery, and diathermy, respectively.

6 BLIND SPOTS

After the rods and cones convert light into electrochemical signals, individual nerve fibers carry the signals to the brain. Each nerve represents the visual input of several rods or cones. As these
nerves leave the eye, they become bundled together into what is called the optic nerve.

The optic nerve resembles a large telephone cable made up of millions of individual telephone lines, each carrying a distinct message. When the "messages" arrive at the brain, they display their signals as an actual two-dimensional picture on the outer surface of the optical cortex. Any injury to the optic nerve, even to just a few individual fibers, can result in a hole or blind spot in this picture.

Anatomy of the optic nerve

Once light has triggered an electrical signal within a rod or cone, that signal is transferred to a nerve called a bipolar cell. Each bipolar cell collects signals from several adjacent rods or cones. Two other types of cells, amacrine (AM-uh-krinn) cells and horizontal cells, help collect signals between adjacent bipolar cells.

Eventually as the signals reach the uppermost layers of the retina, they are picked up by long ganglion cells which carry the messages to the brain. These ganglion cells are what make up the optic nerve. The optic nerve, in turn, displays an "electrical" picture of what a person sees on the occipital cortex of the brain.

There is no protective sheath around the ganglion cells, and this condition aids in the transmission of light through to the rods and cones. However, the lack of a protective sheath also makes it impossible for the ganglion cells to repair themselves if they are injured.

Millions of these ganglion cells eventually come together at the point referred to as the optic disc. The optic disc represents the exit hole through which the bundle of ganglion cells leaves the eye on its way to the brain. Because there are no rods or cones in this area, the optic disc is actually a blind spot on the retina.

An ophthalmoscope is a magnifying instrument that projects light into the eye. As a doctor looks through the ophthalmoscope, he can see virtually every part of the eye.

Even healthy eyes have blind spots. You can demonstrate these blind spots to yourself by marking three X's on a piece of paper. Place the X's in a horizontal line about six inches apart.

Keeping one eye closed, stare at the middle X. As you move the paper closer or farther away from your eye, you will notice that one of the X's will disappear. It vanishes when its image falls directly on the optic disc. If you continue the movement of the paper, the X reappears.

Blind spots such as these are referred to as scotomas. Scotoma comes from the Greek word σκότος (SKAW-toss), which means "darkness."

After the optic nerve leaves the eye, about half of the ganglion cells split off and join the optic nerve from the opposite eye. Doctors call this the optic...
chiasm (KIE-azm). The optic chiasm blends the images from the two eyes. However, since each eye sees from a slightly different angle, the two images are not quite the same. This slight shift allows the brain to "see" in three dimensions.

**OPTIC CHIASM**

The optic chiasm mixes ganglia so each half of the brain receives visual information from both eyes. By comparing the different perspectives of each eye, the brain creates the impression of depth. Without a mixing of images from both eyes, a person's visual world would be flat and void of depth perception.

**LEFT EYE**  **RIGHT EYE**

A stereoviewer reveals the difference in perspective between two eyes. Notice how the milk bottle in this picture is almost completely hidden from one eye. Blending the two images produces a three-dimensional picture.

When the optic nerves from both eyes reach the brain, they spread out across the optical cortex. The optical cortex is a complex network of nerve cells that appears to be layered into several distinct levels of visualization. According to one of the current theories of vision, the outer layer of the brain displays a two-dimensional picture much like that of a television screen.

The nerves underlying this outer layer then begin to identify lines, shapes, and corners. Beneath this layer, the cortex interprets the lines and shapes as objects and patterns. By the time the visual signals reach the lower levels of the cortex, the brain has figured out what it is seeing and gives meaning to the objects and patterns it perceives.

**Blind spots allow the brain to “fill in” the vacant spaces with whatever seems right.**

Any break in the transmission of signals from the eye to the brain can cause a blind spot. Unfortunately, the brain has a way of covering up these blind spots so we are unaware of them. Because there are so many interconnections between brain cells of the optical cortex, brain cells in the middle of a blind spot pick up visual signals from surrounding cells and claim those signals as their own. They literally fill in the blind spot with whatever information their neighbors receive.

This communication eliminates the distraction of a blind spot and allows the brain to continue processing information even though pieces are missing. The brain is so good at "filling in" the vacant spaces that people are often unaware that they even exist.

**Blind spots may result from pressure, poisons, infections, and tumors.**

There are many ways that degeneration of the optic nerve can produce blind spots. These include excessive pressure on the optic nerve, poisons, neuritis (inflammation of the nerve), and tumors.
Pressure arising from disorders such as glaucoma often deprives the optic nerve of nourishment. Without oxygen the individual ganglion cells that make up the optic nerve begin to die. Doctors say they become necrotic (neh-KRAH-tick). The Greek word νεκρος (NEK-row) means "death." Therefore, necrotic tissue is tissue that has died.

The death of even a single ganglion produces a blind spot on the optical cortex. However, the blind spot is filled in so well by the brain that it goes unnoticed. As more and more ganglia die, the blind spot becomes larger and larger. Yet, the brain compensates so well that a person may be unaware of the changes until he is almost completely blind.

BLIND SPOTS AS RECORDED ON VISUAL FIELD CHARTS

The presence and location of blind spots is recorded on visual field charts. Blind spots may come in a variety of shapes and sizes, depending on their cause and degree of severity.

Surprisingly, blind spots which are completely hidden to a patient are easily seen by others. An eye doctor, for example, can identify necrotic tissue on the retina with a simple eye examination.

Poisons are also noted for their destructive effects on the optic nerve. Ethyl alcohol, methyl alcohol, quinine, arsenic, and nicotine are common poisons which attack the optic nerve. Initially ethyl alcohol and nicotine decrease appreciation of colors, especially the color red. The changes are imperceptible at first; however, continued intake of these substances destroys more and more fibers of the optic nerve until egg-shaped blind spots develop. The ingestion of methyl alcohol (wood alcohol) may cause immediate blindness.

Optic neuritis can also produce blind spots. The term neuritis comes from the Greek word neuron, meaning "nerve," and the suffix itis, meaning "inflammation." Neuritis occurs as the result of an infection of the optic nerve. The inflammation and swelling that typically accompanies neuritis blocks the flow of impulses from the eye to the brain, causing a blind spot.

PROJECT 1

Match each of the following causes of physical darkness to a corresponding cause of spiritual darkness.

- 1. SCARRING
- 2. INFLAMMATORY REACTIONS
- 3. IRREGULARITIES
- 4. IMBALANCES
- 5. TENSION
- 6. BLIND SPOTS

A. Personal deficiencies of which I am not aware
B. Deep hurts I have never resolved
C. Little compromises I allow in my life
D. Angry responses when things do not go my way
E. Overemphasizing some things in my life and neglecting others
F. Allowing little problems to grow in my life

PROJECT 2

Learn the basic parts of the eye.

PARTS OF THE EYE

- Cornea
- Aqueous humor
- Lens
- Vitreous humor
- Retina
- Optic nerve

Date completed _____________ Evaluation _____________