Small Group Leader's Guide

A Training Guide for Small Group Leaders For the Origin of Life Preparedness Course

By
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What is Leadership?

Most people will define leadership as the ability to achieve a position. However, real leadership is built upon three components: communication, recognition, and influence. A real leader knows the difference between being the boss and being a leader. Real leadership is being the person others will gladly and confidently follow.

A boss drives his men	A leader coaches them
A boss depends upon authority	A leader depends on developing good will
A boss inspires fear	A leader inspires enthusiasm
A boss says "I"	A leader "we"
A boss fixes the blame for the breakdown	A leader fixes the breakdown
A boss knows how it is done	A leader shows how it is done
A boss says "go"	A leader says, "let's go!"

Leadership begins with the heart, not the head. It flourishes with a meaningful relationship, not more regulations. Leadership is getting people to work for you when they are not obligated. In other words, people won't care how much you know until they know how much you care.

Finally, a leader is great, not because of his or her power, but because of his or her ability to empower others. People are your most appreciable asset.

Small Group Leader's Guide

PART 1: The Preparedness Course & Small Group Leader Functions

Preparedness Course Goals

The goals of a preparedness course include preparing the student to recognize information in textbooks, in classroom discussions, and in the media that is used to support evolution. Additional goals are to equip students to:

1. Ask, with confidence, scientific questions that help clarify or challenge the accuracy of information presented in support of evolution.
2. Give relevant information that supports questions or statements by using of scientific evidences or facts and statements or quotes by scientists.

Preparedness Course Format (for Leader-led courses)

The course format involves three main components for each chapter.

1. Teaching period (60 minutes)
2. Practice period (60 minutes)
3. Debrief period (10 minutes)

Teaching Period

A qualified (subject knowledgeable and experienced teacher/presenter) course instructor will present the subject matter content for each session.

Practice Period

After the information on the topic is presented, participants break into small groups (no more than six per group is recommended). A group leader should accompany each group. The purpose of the small group is to build student confidence. This is accomplished as students practice asking relevant scientific questions that help clarify or identify incorrect or misleading statements in textbooks or in discussions used to support evolution.

Debrief Period

Following the small group practice, all participants will come together for a short debrief period. The debrief time brings the topic to closure by having any unresolved questions or concerns answered, and by highlighting significant outcomes in individual groups.

Leader Training Purpose

The purpose of small group leader training is to prepare individuals to become group facilitators and encouragers of students. The group leader will:

- Assist students to become comfortable with the information.
- Encourage students to participate fully in learning activities.
- Monitor students for correct and appropriate questions and statements.

Who Should Be A Small Group Leader

The suggested requirements for becoming a small group leader include:

- Being a Christian
- A belief in the inerrancy of Scripture
- A belief in special creation by God in 6 literal days
- Some knowledge of the creation/evolution issue – why it is important
- A background in some area of science or a desire to want to learn more about science
- A desire to help others

Professions or positions that can assist in becoming a small group leader include:

- A school teacher
- Working in some area of science or engineering
- A pastor or Sunday school teacher
- Any profession that requires good communication skills

Small Group Leader Role

The role of a small group leader requires skills in a variety of techniques. The individual will take on the duties of a leader, a facilitator, and a coach.

- A leader/director: to help influence and guide students along a positive course of action to improve learning.
- A facilitator: to maintain control and direction.
- A coach: to insure correct practice and personal achievement.

Leader (Director)

This occurs when the leader guides (directs) the discussion and prompts the level of student participation (mostly done at the beginning of the course).

Facilitator (Delegator)

This is where the leader gets the discussion going by delegating the topics to be discussed and selecting students to respond. Once delegated, the students take a more active role.

Coach (Encourager)

Here the leader encourages the students to become more active and gives them constructive feedback. The students come to the group knowing the procedure and what needs to be accomplished. This is much like coaching athletes or musicians as they practice.

Leadership Style

A desirable style of small group leadership for this course is based on adjusting to the needs and strengths of the group, while maintaining control and direction. This situational leadership style allows leaders to assess the dynamics of a group and then adapt a leadership style that maximizes the dynamics and individual strengths of each student.

Each individual in your group will have different personality traits, background knowledge on the subject, and motivation to participate.

The central focus of a group leader is not to ask questions or quiz students, but to guide them in asking their own accurate and relevant questions. Students attaining these skills can impact others about correct science and call attention to misleading or incorrect statements used to support evolution.

You will find that as the course progresses, your role (leadership style and contribution) will vary as the knowledge, rapport, and confidence level of the group develops.

In all situations, the concern of the small group leader should include both the student and the task. There are three areas each small group leader needs to facilitate:

1. To help each member become involved
2. To enable the group to accomplish the task
3. To cause members to work together (teamwork)

Group Stages

Groups will progress at different rates, but there are various stages that most will go through, which include:

- Orientation – getting to know one another and the "rules" of participation (how safe it is to speak).
- Hesitant participation – this is where students are beginning to understand the information, but not are yet completely sure it is okay to give a wrong answer.
- Full participation – rapport within the small group has been established and all volunteer willingly, whether wrong, partially correct, or fully correct.

Small Group Leader Subject Knowledge

Each small group leader should be familiar with the subject area before the course starts. This can be done by:

1. Reading through the student manual.
2. Viewing or reading other resources (see page 21 for additional resources).
3. Watching the video titled, "The Origin of Life" by Mike Riddle (order from www.creationscienceministries.org).
4. Group discussions with others who are also preparing for small group leadership.

Impacting Learning

There is a climate produced within groups that impacts learning and change. The group leader needs to recognize the atmosphere created by such things as: room setting, non-verbal behavior, interactive styles, and personality mixes.

Group dynamics involves the process of who talks, who tends to be silent, how information is communicated, what signals are given that reveal inner responses (body language).

The bulk of Christian education is based on hearing, which causes the least amount of learning and change in our lives. Studies indicate that we have the potential to remember up to about 10% of what we hear. If we add seeing to hearing our potential goes up to 50%. If we add doing, our learning can go up to 90% or more and the duration for retention is much greater. The best way to learn to witness is by witnessing, not by reading books about witnessing.

> *But prove yourself doers of the word, and not merely hearers…*
>
> James 1:22

In all aspects of the program, each student should be made to feel comfortable with openly contributing information, whether correct or incorrect. The purpose is to equip for success, not to grade, fail, or make anyone feel they have fallen short of learning. Every gain in a student's ability to strengthen their faith in God's Word and to equip them to be a confident witness is a success.

PART 2 Sample Small Group Situations

Situation 1	A student reads a question, but the voice is too low or too soft. Leader response: Go to the next student and ask them to read or state the same question, but with more volume. By using this method we avoid any direct criticism (although at times that may be necessary), and the rest of the group learns that we need to speak up when asking a question so that everyone can hear. The students need to understand it is important for all other students to hear their question or comment to the teacher.
Situation 2	A student makes an incorrect statement or question. Leader response: Point out something that was correct, but also correct any parts that were not completely accurate. Emphasize that we are learning through practice, just as we would in tennis, high jumping, baseball etc. Mistakes are inevitable but should motivate us to become better, not discourage us. Next, give the group the correct information. It is imperative that we always give correct information. Then have someone, or you, state the question in a correct manner. Finally, have someone else state the question for reinforcement. (They need to hear it correctly at least twice to reinforce correctness since they have heard it incorrectly.)
Situation 3	No one volunteers to state a question. Leader response: Have the students turn to a designated page in the manual and have each one read out loud one or two questions. As they read, monitor for volume and inflection. If either is not sufficient, ask the next person to read with more volume or meaning. For example, student A reads in a low volume or poor inflection. State: "That was good, but now could you (student B) read the same question but add more volume or state it like you are actually asking a question versus just reading a sentence."

Situation 4	A student (or students) takes you off track (the intended task at hand). Leader response: Time is precious; we need to stay on target. As the facilitator, your responsibility is to return the discussion to the task at hand, which is helping students learn and practice asking valid science questions.
Situation 5	The small group leader begins to dominate the small group time by teaching or giving new information. Response: This time is meant for the students to practice asking questions, it is not a time to add new information. The small group leader's role is to facilitate and coach the students not to ask questions, quiz the students on what they know, or give new information.
Situation 6	A student or students become proficient at reading the questions provided in the manual. Leaders response: Once someone becomes proficient at reading the questions (this could be in the first session or a later session), the leader should have the student begin to take ownership of the questions. This can be done by encouraging the student to rephrase the question in their own words or by adding information to the question, such as adding a quote, or the scientist's names and credentials found in the manual as further support.

PART 3: Small Group Student Learning Activities

Timed Check Point	A Timed Check Point (TCP) is a closed book, timed exercise. It is NOT a test. The TCP is an exercise to let individual students "know what they know". It is a form of repetition, review, and personal knowledge evaluation. The format and procedure for a TCP is: • The group leader will hand out the TCP face down at the beginning of a small group session meeting. • Each TCP will have a specified time limit to answer the questions. Time periods are printed on each TCP. • At the end of the time period, everyone is to stop writing. • The group leader will then go over the answers and each student will check their own paper, filling in any answers they missed. Only the student sees his or her paper. They are not handed in. • The entire process should take about 15 minutes. As the small group leader, you need to pay close attention to the time limits on these exercises. If some students have not finished answering all the questions, do NOT allow for more time. Allowing for more time defeats the purpose of allowing students to find out how readily they can recall the information. Once the time is over you should reinforce their knowledge by reading the answers and allowing them to write in the correct answers. This means they all finish with correct answers. This is actually a form of repetition that allows students to see important material again, but this time instead of hearing it, they have to write it. Since the TCP is closed book, it allows the students to know what they know and always end up with the correct answer. This form of education process focuses on the positive aspects of learning and correctness, much like successful athletes do in their training. The two Timed Check Points and the answer keys used in this course are included in this guide on pages 16-20. You may copy them from this guide or print them from the CD included in the Origin of Life Preparedness Package. The first TCP should be handed out to the students after teaching the information in Chapter 2. The second TCP should be handed out after teaching Chapter 4.

PART 4: Small Group Session Roadmaps

Overview	The following is a suggested list of actions for each of the small group sessions. This is not meant to be a strict guideline. Each group of participants will be different and involve different personalities, levels of experience, and confidence. A key point is to not get off track (go down rabbit trails) with discussions that do not directly pertain to students learning or asking questions. An example of this might be: "Well my teacher says or does this…." Or "the kids in my class…" We are not here to talk about specific teacher's personalities or activities in the classroom; such discussions could detract from our goal of preparedness and consume our time.
Small Group Session 1: Evolution and Natural Selection	PART 1: Lecture Period Session one begins with a 60-minute teaching on the information. This information is included in the student manual. PART 2: Small Groups Students will break up into small groups (a maximum of 6 students per group is recommended). The groups should already be defined by a course administrator. Groups should be assigned by age group (senior high, college, post college, etc.). The time allotted for this small group session is 60 minutes. You may find that the time goes by very quickly and you may not have time to finish all the points. It is more important to do a good job rather than rush through in order to complete all the points. Time is important, so be careful not to go down any "rabbit trails" (wasted time). The goal is to allow the students the opportunity to state the questions in the manual. Spend the first 5 minutes settling into your groups and getting to know each other. Some suggested information for each individual to share might include: • Previous science courses attended or courses they want to take. • School they attend (for the leader, it might be your job description). • Why they want to learn this information. Due to time constraints, don't get too chatty or personal.

This BRIEF warm-up period serves to get everyone in your group to speak up.

1. Give a brief 1-2 minute introduction to what is going to happen in the small groups.
    - The topics that will be covered in this session (microevolution, macroevolution, and natural selection).
    - Make sure your group knows that there are no tests, just practice.
    - Let your group know that they do not have to memorize anything.
    - The purpose is to practice stating questions out loud and clarifying any specific questions or statements for better understanding.
    - You, as the group leader, will help them state questions correctly (scientifically, proper volume, and tone – not attacking).
    - You will help them stay on track – not get off the topic.

2. Encourage participation and let them know that any answer is an okay answer to give (right or wrong). Reinforce the concept that practice is the only method that will develop and sharpen skills.

<u>Let's Get Started</u>

*** All page numbers refer to the student manual. ***

3. Review basic terms.
    - Ask if anyone can state the difference between microevolution (1-4), macroevolution (1-6), and genetic variation (1-4). If no one responds you have several options.
        a. You can read or state the difference as a reminder and then ask them again. Or
        b. Choose someone (or ask for a volunteer) to read it out loud from the manual. Then have them try stating it out loud without looking. Or
        c. You state or read it. Then have them state just one of the definitions. Once they have done this, ask them to put it all together and state the difference between all three.

- Ask if any anyone can give an example of each. An example of microevolution would be a genetic error in the DNA that causes a deformity, such as a child with Down Syndrome. Examples of genetic variation might include: variations of people, dogs or cats; finches with different size beaks; different sizes of horses. The key is variety within kind. Some examples of macroevolution would be fish evolving into amphibians, apes evolving into humans, reptiles evolving into birds (see diagram on page 1-7).
- Ask, "What is natural selection?" The answer is that it is the same as genetic variation (see page 1-4 for examples).
- Ask, "Is bacteria becoming resistant to antibiotics an example of evolution or natural selection? Why?" (See pages 1-11 and 1-12). You can choose students to read each explanation.

4. Go over some of the quotes beginning on page 1-28. Pick 3 or 4 quotes and read them out loud yourself or have students read them out loud. They need to understand that these quotes will be important tools to back up questions they may ask in science classes. Reinforce that not all these scientists are Christians.
5. Go around the group and have each person state questions 1 and 2 on page 1-33.
6. Ask why macroevolution cannot be confirmed as a fact or theory (this is from pages 1-24 and 1-25).
7. Go around the group and have each person take a turn reading the rest of the questions on pages 1-33 and 1-34. Check how they read them (with confidence, non-attacking, etc).
8. Ask why bacterial resistance to antibiotics is NOT an example of macroevolution (see pages 1-11 and 1-12).
9. Read the textbook statements on pages 1-35 and 1-36, and have the students raise their hands (just like in a classroom setting) to challenge the statement by using one of the questions listed.
10. If time allows, do the challenge on page 1-36.

In the first small group meeting, do not challenge the student's questions (unless you have time and an advanced group). As they get more confident in later meetings you will begin to challenge them when they ask a question or make a statement. A typical challenge might be: "I have not heard of that, where did you get that information?" The purpose of the first meeting is to get students to state questions verbally with a level of self-assurance.

PART 3: Debrief

Following the small group meeting, all groups will reunite for a short debriefing (10 minutes) to bring the session to closure.

Small Group Session 2: The Miller Experiment

1. Hand out Timed Check Point (TCP) number 1 (remember to keep to time limits).
2. Have someone describe the objective of the Miller experiment (page 2-4).
3. Ask, "What is biogenesis?" (page 2-2)
4. Ask, "Was the Miller experiment a success? Why or why not?" (page 2-14 and Appendix A-2)
5. Go through some of the quotes beginning on page 2-19.
6. Have each student read a question from page 2-25.
7. Read the textbook statements on pages 2-28 through 2-30 and have the students raise their hands to challenge the statement by using one of the questions listed.
8. If you have time, read the additional challenges on page 2-31/32.
9. If time allows, go back to Chapter 1 page 1-33 and ask the students to respond to questions 1 and 4 without looking at their manuals.

Small Group Session 3: The Second Law of Thermodynamics

In this session you will be asking some questions. If no one responds, have the group turn to the page where the answer is described and choose a student to read it. Next, ask the question again and allow the students to read it or answer it without looking at the manual. In either case, compliment the student if their answer is accurate. Make sure that all students can answer number 3 below.

1. Ask, "What is the difference between an open and isolated system?" (pages 3-10 and 3-11)
2. Choose two students to role-play the discussion between an evolutionist and creationist on page 3-16 (allow them to read from their manuals).
3. Ask, "What are the four necessary conditions for something to become more complex?" (page 3-16)
4. Ask, "Why are ice crystals not a good example for the evolution of life?" (pages 3-24 through 3-26)
5. Have the students take turns reading the questions on pages 3-37 and 3-38.
6. Read the textbook statements on pages 3-39 through 3-41 and have the students raise their hands to challenge the statement by using one of the questions listed.
7. Choose two students to role-play (read) the argument for the existence for God (page 3-28).

Small Group Session 4: DNA, RNA, and Information	At this point many of the students will be on "brain overload" and can't handle any more new information. If this is so, you have done your job. Chapters 1 – 4 provided a lot of new information to students. However, this is the point in the program where you should begin to reinforce what the students have learned. Chapter 5 contains no new information and is about analyzing statements and arguments – so they are home free. 1. Hand out Timed Check Point (TCP) number 2. 2. Have the students take turns reading the questions on pages 4-26 and 4-27. 3. Have the students read a couple of the quotes beginning on page 4-20 (let them choose any quote to read). 4. See if someone in the group can state 5 major problems for evolution (page 4-15). 5. Have the students practice the challenge question on page 4-27. 6. Read the textbook statements on pages 4-28 and 4-29 and have the students raise their hands to challenge the statement by using one of the questions listed.
Small Group Session 5: Facing Challenges	This is an optional small group meeting. It depends on time, availability, and the condition of the students (how tired they are). If you do decide to have this group meeting, you could use it for review of the other sessions or go on to point 1 below. 1. Have students respond to the Recognizing Invalid Test Questions and Statements in Textbooks (pages 5-2 and 5-3).
PART 5: Timed Check Points	Pages 17-20 contain the two Timed Check Points (TCPs) the students will receive and the answer keys. When should these be handed out? TCP 1: Hand out to students in your group after the lecture period for Chapter 2. TCP2: Hand out to students in your group after the lecture period for Chapter 4.

Timed Check Point #1: Chapters 1 and 2
Time Limit: 5 minutes

1. Varieties of finches are an example of what kind of change?

2. State two scientific explanations for bacteria becoming resistant to antibiotics.

3. What Red-Flag(s) would you raise in the following statement:

> *"The living things found on Earth today, including humans, resulted from a long history of organisms adjusting to a diverse and changing environment."*

4. Why is macroevolution not a fact? Why doesn't it qualify to be a theory?

5. Give two reasons why the Miller experiment did not succeed.

Timed Check Point #1: Chapters 1 and 2 Answer Key
Time Limit: 5 minutes

1. **Varieties of finches are an example of what type of change?**

   Genetic variation or natural selection

2. **State two scientific explanations for bacteria becoming resistant to antibiotics.**

   a. Sometimes, a previously undetected character reappears (such as a recessive character), making it appear that something new evolved.
   b. In other cases, a few resistant bacteria were already present in a given population when the antibiotics were first applied. The vulnerable bacteria were killed, allowing **already existing** resistant varieties, which then had less competition, to become most prevalent (survival of the fittest).

3. **What Red-Flag(s) would you raise in the following statement:**

   "The living things found on Earth today, including humans, resulted from a long history of organisms adjusting to a diverse and changing environment."

   a. It implies that natural selection is the cause of new information.
   b. The statement "Including humans" implies we evolved.
   c. "Long history of organisms" implies long ages.

4. **Why is macroevolution not a fact? Why doesn't it qualify to be a theory?**

   a. Facts must be observable, repeatable, and measurable with no contradictions.
   b. A theory must be able to explain observations and make predictions over long periods of time. Macroevolution does not meet these criteria.

5. **Give two reasons why the Miller experiment was a failure.**
   a. All biological proteins have 100% left-handed amino acids and Miller got a mixture (50/50).
   b. Miller left oxygen out of the experiment. If there was no oxygen, then there would be no ozone and all life forming molecules (such as amino acids) would burn up from the UV rays of the sun.

Timed Check Point #2: Chapters 3 - 4
Time Limit: 5 minutes

1. Name four necessary conditions for something to become more complex.

a. _____

b. _____

c. _____

d. _____

2. Circle all the correct answers (each statement may have one or more answers)

i. Ice crystals contain (order information specified complexity).
ii. Life requires (order information specified complexity).
iii. Ice crystal formation is a (loss gain) of information.
iv. The complex molecules used in life require (loss gain) of useful energy for doing work.
v. Based on the above information, are ice crystals a good argument for the origin of life by natural processes in an open system (yes/no)?
vi. The energy requirements for formation of ice crystals are the (same opposite) for life to begin?

3. Circle the correct answer

1. Amino acids in proteins are (left-handed right-handed).
2. Sugars in DNA and RNA are (left-handed right-handed).

4. Give <u>one</u> scientific reason that supports why RNA could not have evolved by natural processes.

5. (True or False) Evolution is both a fact and a theory. Support your answer.

6. What does each of the following mean or imply?

a. Genetic variability
b. Microevolution
c. Macroevolution

Timed Check Point #2: Chapters 3 – 4 Answer Key

Time Limit: 5 minutes

1. **Name four necessary conditions for something to become more organized and complex.**
   a. Open system
   b. Source of energy
   c. A mechanism to capture and convert energy into a form useful for life.
   d. A mechanism to utilize the converted energy for metabolic work.

2. **Why isn't the formation of ice crystals a good argument for evolution?**
   a. Order
   b. Order, information, specified complexity
   c. Loss
   d. Gain
   e. No
   f. Opposite

3. **Circle the correct answer.**
   a. Amino acids in proteins are [left-handed] right-handed.
   b. Sugars in DNA and RNA are left-handed [right-handed.]

4. **Give <u>one</u> scientific reason that supports why RNA could not have evolved by natural processes.**
   a. All the sugars in RNA are right-handed.
   b. RNA is relatively unstable – it can break down in just several hours.
   c. RNA is more complicated than proteins.
   d. RNA contains encoded information which comes from DNA.

5. **(True or False) Evolution is both a fact and a theory. Support your answer.**
   Microevolution (meaning random error mutations) is a fact. Macroevolution is neither – it is an unverified hypothesis or model. A theory requires observation, prediction, and repeated verification.

6. **What does each of the following mean or imply?**
   a. Genetic variation: <u>variety within kind</u>
   b. Microevolution: <u>Small (micro) random mutations (errors) in DNA</u>
   c. Macroevolution: <u>One species changing into a new species over time (this requires the addition of new information)</u>

PART 6: Resource Materials

Category	**Resources** Available at: www.creationscienceministries.org
Origin of Life	• *Origin of Life* video by Mike Riddle • *Of Pandas and People* by Percival Davis and Dean Kenyon • *Creation Facts of Life* by Gary Parker • *Not By Chance* by Dr. Lee Spetner • *A Question of Origins* (video) • *Darwin's Black Box* by Michael Behe
Origin of Man	• *Origin of Man* video by Mike Riddle • *Bones of Contention* by Marvin Lubenow • *Buried Alive* by Dr. Jack Cuozzo
Biological Change and the Fossil Record	• *Evolution: The Fossils Still Say NO!* by Dr. Duane Gish • *Origins, Icons, and Illusions* by Dr. Harold R. Booher • *Icons of Evolution* by Dr. Jonathan Wells
Age of the Earth and Dating Methods	• *Dating Fossils and Rocks* video by Mike Riddle • *The Answers Book* by Ken Ham, Dr. Jonathan Sarfati, and Dr. Carl Wieland • *The Young Earth* by Dr. John Morris
Geology	• *The Geology Book* by Dr. John Morris • *In the Beginning* by Dr. Walter Brown • *The Genesis Flood* by Dr. Henry Morris
Dinosaurs	▪ *The Great Dinosaur Mystery Solved* by Ken Ham ▪ *Dinosaurs and Creation* by Dr. Donald DeYoung