

LEARNING STRAND 2 SCIENTIFIC AND CRITICAL THINKING SKILLS

SESSION GUIDES FOR MODULE 1:
WHY DO I NEED TO BELIEVE IN SCIENCE?

ALS Accreditation and Equivalency Program: Junior High School



SESSION GUIDES

Alternative Learning System - Accreditation and Equivalency (ALS-A&E)

JUNIOR HIGH SCHOOL: SCIENTIFIC AND CRITICAL THINKING SKILLS
SESSION GUIDES FOR MODULE 1 (WHY DO I NEED TO BELIEVE IN SCIENCE?)

ALS Accreditation and Equivalency Program: Junior High School
Learning Strand 2: Scientific and Critical Thinking Skills
Session Guides for Module 1 (Why Do I Need to Believe in Science?)

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User's Guide

For the ALS Teacher/Instructional Managers/Learning Facilitator:

Welcome to the Session Guides of this Module entitled Why Do I Need to Believe in Science? under Learning Strand 2 Scientific and Critical Thinking Skills of the ALS K to 12 Basic Education Curriculum (BEC).

This module was collaboratively designed, developed, and reviewed by select DepEd field officials and teachers from formal school and ALS, and private institutions to assist in helping the ALS learners meet the standards set by the ALS K to 12 Basic Education Curriculum (BEC) while overcoming their personal, social, and economic constraints in attending ALS learning interventions.

This learning resource hopes to engage the learners in guided and independent learning activities at their own pace and time. Furthermore, this also aims to help learners acquire the needed 21st century skills while taking into consideration their needs and circumstances.

As an ALS Teacher/Instructional Manager/Learning Facilitator, you are expected to orient the learners on how to use this module. You also need to keep track of the learners' progress while allowing them to manage their learning. Moreover, you are expected to encourage and assist the learners as they do the tasks included in the module.

WHY DO I NEED TO BELIEVE IN SCIENCE? Session Guide No. 1

I. Objectives

1. Identify superstitious beliefs and practices at home and in the community (LS2SC-SM-PSB-LE/AE/JHS-2);
2. Explain the reason behind observing beliefs and traditions (LS2SC-SM-PSB-LE/AE/JHS-2); and
3. Describe the effects of beliefs and traditions to daily life (LS5US-NI-PSC-AE-A.2).

II. Subject

- A. **Lesson 1:** How Do I Get Bad Luck?
- B. **Materials:** short bond paper, ballpen/pencil

III. Procedure

1. Activity

- a. Search and print the following images:
 - plate on a table
 - funeral
 - pansit
 - big/old tree
 - broom/ walis ting-ting
 - wooden door
 - staircase
 - nailcutter
 - wedding gown
 - metal spoon
- b. Assign learners in pairs or groups. Provide one printout for each pair or group.
- c. Ask the pairs or groups to think of any superstition that comes into their minds when they see the picture given to them.
- d. Instruct the pairs or groups to prepare a short skit for a class presentation. Their classmates will try guessing the superstition based on their skit.

2. Analysis

- a. Ask the pairs or groups to present their skit to the class. The remaining pairs or groups must guess the superstition that their classmates are acting out.
- b. Once finished with the skit, each pair or group must explain the superstition and say how it is believed to bring good or bad luck.
- c. Initiate a discussion by asking the following questions to the learners:
 - Why are superstitions very popular in the Philippines?
 - How have superstitions affected Philippine culture and traditions?
 - Why do people still believe in superstitions despite having no scientific proof?

3. Abstraction/Generalization

Using the learner's module, present the key concepts on superstitions, culture, and traditions.

4. Application

Ask each learner to prepare a short story containing ten superstitions with a minimum of three hundred words. The story must involve a person's belief in superstitions and its effect on his/her life.

IV. Evaluation

On a clean sheet of paper, ask the learners to write their understanding of the session.

WHY DO I NEED TO BELIEVE IN SCIENCE? Session Guide No. 2

I. Objectives

1. Explain how to plan and organize thoughts for an oral presentation (LS1CS/EN-S-PSB- AE-12);
2. Determine the properties of a good visual aid (LS1CS/EN-S-PSB- AE-12, LS6DC-DA/PS PSC- AE/JHS-66); and
3. Deliver an effective oral presentation (LS1CS/EN-S-PSB-AE-15, LS6DC-DA/PS PSC- AE/JHS-66).

II. Subject

- A. **Lesson 2:** How Do I Make People Believe What I Say?
- B. **Materials:** short bond paper, ballpen/pencil

III. Procedure

1. Activity

- a. Read the story below to the class. Ask the learners to carefully listen.

Josh woke up to a *scintillating* morning. Since he has been *sapped* since Monday, Josh was *piqued* to the *clamorous* sound of his alarm. After having his repast, Josh quickly slid into his *garments*, went out of his *domicile* and *scampered* to work.

- b. Reread the story. This time, ask the learners to write words that were difficult to understand.
- c. Ask the learners to write the definition of each word based on their understanding of the story.

2. Analysis

- a. Ask the learners about their understanding of the following words from the story: scintillating, sapped, piqued, clamorous, garments, domicile, and scampered.

SESSION GUIDE 2

- b. Allow the learners to explain the reason how they understood the definition of each word.
- c. Read the story below to the class:

Josh woke up to a *bright* morning. Since he has been *tired* since Monday, Josh was *annoyed* to the *loud* sound of his alarm. After having his repast, Josh quickly slid into his *clothes*, went out of his *house* and *ran* to work.

- d. Initiate a discussion by asking the following questions to the learners:
 - Which story was easier to understand? The first or the second? Why?
 - Based on your understanding, what was the story about?
 - Aside from the use of simpler words, what is another way for you to understand the story?
 - What is the importance of knowing your audience when telling a story?
 - How do visual aids help you in understanding a story or any idea?

3. **Abstraction/Generalization**

Using the learner's module, present the key concepts in preparing for oral presentations, visual aids, and effective oral presentations.

4. **Application**

Ask the learners to write a diary entry about what they did the day before (from morning until night). Ask them to replace at least ten words in their entry with images that they can draw or find online.

IV. **Evaluation**

On a clean sheet of paper, ask the learners to write their understanding of the session.

WHY DO I NEED TO BELIEVE IN SCIENCE? Session Guide No. 3

I. Objectives

1. Explain the scientific bases of common practices, beliefs, and phenomena (LS2SC-SM-PSB-JHS-3); and
2. Speak with clarity, conciseness, and appropriateness (LS1CS/EN-S-PSB-AE-12,LS1CS/EN-S-PSB-AE-15).

II. Subject

- A. **Lesson 3:** How Do People Adapt to Climate Change?
- B. **Materials:** short bond paper, ballpen/pencil

III. Procedure

1. Activity

- a. Read the following superstitions to the class. Ask the learners to raise their hands if they believe in such:
 - Place a thread wetted by saliva on a person having hiccups.
 - After greeting an infant, make sure to dab saliva on its forehead, abdomen, or foot to avoid the infant from getting sick (*usog*).
 - Avoid sleeping with wet hair since it may cause blindness or insanity.
 - Dry hands before washing to avoid having spasmodic hands (*pasma*).
 - Do not step over children since doing so can stunt their growth.
- b. Read the following statements to the class. Ask the learners to raise their hands if they also believe in such:
 - Hiccups are caused by swallowing air or eating/drinking too fast or too much.
 - A baby gets sick when meeting strangers due to stress of seeing unfamiliar faces, which triggers anxiety.
 - Rubbing wet hair to a pillow will cause friction which leads to hair frizzing.

- Sweaty hands, along with hand tremors, are common symptoms of diabetes, thyroid dysfunction or even nervous system dysfunction. If a person experiences this on a regular basis, consulting a doctor is strongly recommended.
- A child's growth depends on both internal (genetics/heredity, hormones) and external (nutrition, financial stability) factors.

2. Analysis

Initiate a discussion by asking the following questions to the learners:

- Which is more likely to be true, superstitions, or scientific phenomena?
- If scientific phenomena are based on studies and facts, why do people still believe in superstitions?
- How does science play a role in the practice of superstitions in the Philippines?

3. Abstraction/Generalization

Using the learner's module, present the key concepts on superstitions, culture, and traditions.

4. Application

As a class, ask the learners to prepare a short skit on the reality of superstitions. The skit must involve the expectations on a superstitious belief and its true scientific basis.

IV. Evaluation

On a clean sheet of paper, ask the learners to write their understanding of the session.

PRE-ASSESSMENT

PAGE 2

- | | |
|-------|-------|
| 1. A | 11. C |
| 2. B | 12. D |
| 3. C | 13. A |
| 4. D | 14. B |
| 5. A | 15. C |
| 6. B | |
| 7. C | |
| 8. D | |
| 9. A | |
| 10. B | |

LESSON I: HOW DO I GET BAD LUCK?

SHARPENING YOUR SKILLS

PAGE 11

ACTIVITY I AND ACTIVITY II

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	content, structure, and language of argument are geared to intended audience	argument is missing a substantial portion of content required by audience

TREADING THE ROAD TO MASTERY

PAGE 14

- | | |
|------|-------|
| 1. S | 6. T |
| 2. S | 7. T |
| 3. T | 8. S |
| 4. S | 9. S |
| 5. T | 10. S |

LESSON II: HOW DO I MAKE PEOPLE BELIEVE WHAT I SAY?

SHARPENING YOUR SKILLS

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ACTIVITY I

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	content, structure, and language of argument are geared to intended audience	argument is missing a substantial portion of content required by audience

ACTIVITY II

CRITERION	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
Layout/ Color	The composition of the poster/slides shows a visual balance among text, pictures, art, graphics, and white space. Color and contrast attract attention and guide the reader. The visual aid is neat and uncluttered.	The composition of the poster/slides shows a visual balance among text, pictures, art, graphics, and white space most of the time. Color and contrast attract attention and guide the reader most of the time. The visual aid is neat and uncluttered.	The composition of the poster/slides shows a visual balance among text, pictures, art, graphics, and white space some of the time. Color and contrast attract attention and guide the reader some of the time. The visual aid lacks neatness or is cluttered.	The composition is not balanced. Excessive use of white space or text, pictures, art, and graphics. Lacks color. Lacks contrast. The visual aid is cluttered and lacks neatness.
Visuals	A sufficient number of pictures, artwork, and graphics are deliberately related to the topic, and large enough to be seen from 6 feet away.	An adequate number of pictures, artwork, and graphics are clearly related to the topic. Most are large enough to be seen from 6 feet away.	A minimal number of pictures, artwork, and graphics are randomly related to the topic. Some are large enough to be seen from 6 feet away.	Almost all pictures, artwork, and graphics are not related to the topic. Almost all are too small to be distinguished from 6 feet away.
Text Elements	Fonts are consistent, legible and easy to read from 6 feet away. Background colors enhance readability of all text.	Most fonts are consistent, legible, and easy to read from 6 feet away. Background colors enhance readability of most text.	Some fonts are consistent, legible, and easy to read from 6 feet away. Background colors enhance readability of some text.	Fonts are not consistent, illegible, and difficult to read from 6 feet away. Background colors make text difficult to read.
Grammar and Mechanics	No errors in grammar, capitalization, punctuation, and spelling.	Few errors in grammar, capitalization, punctuation, and spelling.	Some errors in grammar, capitalization, punctuation, and spelling.	Multiple errors in spelling, capitalization, punctuation, usage and grammar.

TREADING THE ROAD TO MASTERY

TRAIT	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
NONVERBAL SKILLS				
Eye Contact	Holds attention of entire audience with the use of direct eye contact, seldom looks at notes.	Uses direct eye contact with audience consistently, but still returns to notes.	Displays minimal eye contact with audience while reading mostly from the notes.	No eye contact with audience as entire report is read from notes.
Body Language	Movements seem fluid and help the audience visualize.	Movements or gestures enhance articulation.	Very little movement or descriptive gestures.	No movement or descriptive gestures.
Poise	Displays relaxed, self-confident nature about self, with no mistakes.	Makes minor mistakes, but quickly recovers from them; displays little or no tension.	Displays mild tension; has trouble recovering from mistakes.	Displays tension and nervousness; has trouble recovering from mistakes.
VERBAL SKILLS				
Enthusiasm	Demonstrates a strong, positive feeling about topic during entire presentation.	Occasionally shows positive feelings about topic.	Shows some negativity toward topic presented.	Shows absolutely no interest in topic presented.

ANSWER KEY

TRAIT	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
Elocution	Uses a clear voice and correct, precise pronunciation of terms so that all audience members can hear presentation.	Voice is clear. Student pronounces most words correctly. Most audience members can hear presentation.	Voice is low. Student mispronounces terms. Audience members have difficulty hearing presentation.	Mumbles, mispronounces terms, and speaks too quietly for a majority of students to hear.
CONTENT				
Subject Knowledge	Demonstrates full knowledge by answering all class questions with explanations and elaboration.	At ease with expected answers to all questions, without elaboration.	Uncomfortable with information and is able to answer only rudimentary questions.	Does not have grasp of information; student cannot answer questions about subject.
Organization	Presents information in logical, interesting sequence which audience can follow.	Presents information in logical sequence which audience can follow.	Audience has difficulty following presentation because student randomly jumps between topics.	Audience cannot understand presentation because there is no sequence of information. Student's presentation has four or more misspellings and/or grammatical errors.
Mechanics	Presentation has no misspellings or grammatical errors.	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	

LESSON III: HOW REAL ARE SUPERSTITIONS?

SHARPENING YOUR SKILLS

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ACTIVITY I

CRITERION	Exemplary (2)	Proficient (1)
Support/ Evidence (x3)	argument is clearly supported by accurate evidence considered credible by the audience; there is sufficient detail to support the main points of the argument	some evidence is provided, but information is not fully explained; important pieces of evidence have not been included; some data are relevant or credible but inaccurate
Clarity/ Conciseness (x2)	sentences flow smoothly, are structurally correct, and convey the intended meaning; no wordiness	majority of ideas expressed are awkward, incorrectly constructed, or wordy
Strategy/ Audience	content, structure, and language of argument are geared to intended audience	argument is missing a substantial portion of content required by audience

CRITERION	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
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TREADING THE ROAD TO MASTERY

TRAIT	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
NONVERBAL SKILLS				
Eye Contact	Holds attention of entire audience with the use of direct eye contact, seldom looks at notes.	Uses direct eye contact with audience consistently, but still returns to notes.	Displays minimal eye contact with audience while reading mostly from the notes.	No eye contact with audience as entire report is read from notes.
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VERBAL SKILLS				
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TRAIT	Exemplary (4)	Proficient (3)	Needs Improvement (2)	Poor (1)
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Mechanics	Presentation has no misspellings or grammatical errors.	Presentation has no more than two misspellings and/or grammatical errors.	Presentation has three misspellings and/or grammatical errors.	Student's presentation has four or more misspellings and/or grammatical errors.

REACH THE TOP

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