

MIND MASTERS LIBERIA INITIATIVE (MMLI)

Junior High Division – Study Outline

1. Mathematics

- **Number and Numeration:** Place value, rounding, factors/multiples, fractions, decimals, percentages.
- **Algebra:** Simple equations and expressions, patterns and sequences.
- **Geometry:** Types and properties of shapes, perimeter, area, volume, angles, lines, and symmetry.
- **Measurement:** Units (length, mass, capacity, time), conversion of units.
- **Statistics and Data:** Mean, median, mode, interpreting bar graphs and pie charts.
- **Word Problems:** Real-life math applications, logical reasoning and mental math.

2. Science

- **General Science Skills:** Observation, classification, measurement.
- **Biology:** Human body systems, plants' structure and functions.
- **Chemistry:** States of matter, physical/chemical changes, acids and bases.
- **Physics:** Forces and motion, energy types and sources, light and sound.
- Environmental Science: Ecosystems, pollution, conservation, renewable and non-renewable resources.

3. Language Arts (English)

- **Grammar:** Parts of speech, sentence structure, punctuation, subject-verb agreement, tenses.
- **Vocabulary:** Synonyms, antonyms, homonyms, context clues.
- **Comprehension:** Main ideas, supporting details, inference and summarizing.
- **Writing:** Paragraph development, letter and essay writing.
- **Literature:** Literary devices (simile, metaphor, personification), understanding characters, setting, and plot.

4. Social Studies

- **Liberian History and Government:** Founding of Liberia, independence, national symbols, structure of government.
- **Geography:** Map reading, major landforms and rivers of Liberia and Africa.
- **Civics:** Rights and responsibilities of citizens, rule of law and democracy.
- **Economics:** Goods/services, needs/wants, trade and natural resources in Liberia.
- **African and World History:** African kingdoms (Mali, Ghana, Songhai), key historical events (colonialism, independence).

