First Steps Links

**SPACE**

**Represent Location**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Represent Shape**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Represent Transformation**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Reason Geometrically**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Direct Measure**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Indirect Measure**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.
- KU 5 Pg.
- KU 6 Pg.
- KU 7 Pg.
- KU 8 Pg.
- KU 9 Pg.

**Estimate**
- KU 1 Pg.
- KU 2 Pg.
- KU 3 Pg.
- KU 4 Pg.

**PROFICIENCY STRANDS**

**Understanding**
Students build a critical knowledge of adaptive and transferable mathematical concepts. They make connections between related concepts and progressively apply the familiar to develop new ideas. They develop an understanding of how concepts connect to other parts of the mathematics curriculum and other subject areas. They pose and answer relevant questions when they connect related ideas, when they represent concepts in different ways, when they identify commonalities and differences between concepts of related content, when they discuss their thinking mathematically, and when they interpret mathematical information.

**Problem Solving**
Students develop the ability to make decisions, identify patterns, model and investigate problem situations, and communicate solutions efficiently. Students formulate and pose questions when they use mathematics to represent and solve unfamiliar or meaningful situations, when they design investigations and plan their approaches, when they apply their existing strategies to seek solutions, and when they verify that their answers are reasonable.

**Fluency**
Students develop skills in choosing appropriate procedures, carrying out procedures flexibly, accurately, efficiently and effectively, and employing formal mathematical language and concepts readily. Students are fluent when they calculate answers efficiently, when they recognize visual ways of answering questions, when they choose appropriate methods and representations, when they read definitions and register use talk, and when they can manipulate expressions and equations in this context.

**Reasoning**
Students develop an increasingly sophisticated capacity for logical thought and action, such as analyzing, proving, reasoning, selecting, applying, validating, verifying, justifying and generalizing. Students are reasoning mathematically when they explain their thinking, when they discuss and apply strategies used and conclusions reached, when they adopt the learner in the unknown, when they present reasoning forms that connect to another, when they predict something that is not true and when they can pose and continue related ideas and explore their claims.