

Instructional Materials Evaluation Criteria - Mathematics

Title _____ ISBN# _____

| Curriculum | 3 | 2 | 1 | 0 | Rating |
|--|--|---|---|--|--------|
| Meets Core Standards and Objectives | 100% of the course standards are included. Objectives in instructional materials are clearly stated with measurable outcomes. | 85% of the course standards are covered. Objectives in instructional materials are clearly stated with measurable outcomes. | 50% of the course standards are covered. | Less than half of the course standards are covered. | |
| Content | Information is mathematically accurate, represents current research in mathematics, and includes contemporary applications. | Information is mathematically accurate but represents dated mathematical material and contrived applications. | Information is mathematically questionable, representations are dated, and applications are contrived. | Information is mathematically questionable and lacking in application. | |
| Covers Standards for Mathematical Practice | Materials support and encourage students in the Standards for Mathematical Practice as outlined in the Utah Core. | Materials provide a range of activities with set outcomes, affording some opportunity to engage in the Standards for Mathematical Practice. | Practice Standards are mentioned but not incorporated into instructional process. Materials provide a set of explicit step-by-step instructions with limited opportunity to engage in the Standards for Mathematical Practice. | No hands-on activities. No attention is paid to the Standards for Mathematical Practice. | |
| Age Appropriate | A wide range of activities to accommodate various developmental levels at a reasonable pace and depth of coverage. Includes age appropriate cross-curricular references. Content organized to support learning trajectories. | Some activities are adaptable to the appropriate age level. Some cross-curricular activities are given. Some attention given to prerequisite skills and knowledge. | Limited developmentally appropriate activities. Prerequisite skills and prior knowledge are not sufficiently developed before more complex concepts are introduced. | Age appropriate issues are not addressed. Several activities are not based on appropriate levels. | |
| Pedagogically Sound | Facilitates a wide range of teacher and student activities that reflect various learning styles and individual needs of students. Includes a wide variety of pedagogical strategies for flexible grouping and instruction. | Encourages and assists teachers in addressing learning styles and individual needs of students. Includes various pedagogical strategies for flexible grouping and instruction. | Addresses differences in learning and teaching to a limited degree. Includes some pedagogical strategies for flexible grouping and instruction. | Hinders effective pedagogy. | |

| Physical Qualities | 3 | 2 | 1 | 0 | N/A |
|----------------------------|--|---|---|--|------------|
| Durability | Materials are durable, easily stored, transported, and are universally accessible. Materials can be easily updated and adapted to match the resources of the school. | Materials are durable and easily stored. May be difficult to transport. Are universally accessible. Materials cannot be easily updated or adapted to match the resources of the school. | Materials are durable and universally accessible. May be difficult to transport or store. There is no means to update or adapt materials. | Materials are not durable, universally accessible, easy to transport or store. | |
| Representations | Mathematical representations in graphs and tables are accurate and labeled correctly. | There is limited use of mathematical representations other than symbols. | Mathematical representations are poorly labeled or organized and do not facilitate student understanding. | Mathematical representations are inappropriate or insufficient. | |
| Ancillary Materials | 3 | 2 | 1 | 0 | N/A |
| Teacher Materials | Lesson plans are easy to understand and implement; are clearly written and presented with accurate concepts. A variety of instructional strategies are proposed. | Most lesson plans are easy to understand and implement; are clearly written and presented with accurate concepts. There is little variety of instructional strategies. | Lesson plans are all organized around a single instructional strategy. | No instructional support is included. | |
| | Mathematical terms are defined in academic language and appropriately used. | Mathematical terms are defined and appropriately used. | Academic vocabulary is absent. Mathematical terms are poorly defined. | Text lacks mathematical academic language and terminology. | |
| | Incorporates integration suggestions to other curriculum areas. | Most integration supports other curricular areas. | Some integration support for other curricular areas. | No integration support available. | |
| | Investigations and problem solving activities focus on demonstrating and discovering mathematical principles in the content area. | Investigations and problem solving activities connect to mathematical principles in the content area. | Investigations and problem solving activities are not related to content area. | Few or no investigative activities. | |
| | Several ESL strategies and activities that support classroom learning are provided. | Some ESL strategies and activities that support classroom learning are provided. | A few ESL strategies and activities that support classroom learning are provided. | No ESL strategies and activities are provided | |

| Ancillary Materials cont. | 3 | 2 | 1 | 0 | N/A |
|--|--|--|---|---|------------|
| Student Materials | Investigations and problem solving activities focus on purposeful discovery of mathematical principles to build understanding in the content area. | Investigations and problem solving activities connect to mathematical principles in the content area. | Investigations and problem solving activities do not necessarily lead to building understanding of mathematical principles. | Activities are fun but do not develop mathematical understanding. | |
| Parent Materials | Daily homework assignments and activities support classroom learning and are written so that parents/guardians can help their children. | Suggested strategies and activities to assist parents/guardians are included by unit. | Limited activities available for parent/guardian use. Homework may be confusing or misleading for parents. | No parent/guardians activities included. | |
| | Materials to be sent home to parents are available in several languages. | Materials to be sent home to parents are available in one other language. | Materials to be sent home to parents are provided in English only. | No reports or parent materials are available. | |
| Technology (teachers) | 3 | 2 | 1 | 0 | N/A |
| Ease of Use | User-friendly installation requires a minimal level of computer expertise. Menus and manuals are easy to read and follow. | Installation requires little computer expertise. Menus and manuals are generally easy to read and follow. | Installation requires some computer expertise. Menus and manuals support use but may be difficult to use. | Installation requires extensive computer expertise. Menus are difficult to follow and manuals are not available. | |
| Enhances learning experience | Materials enhance learning experiences with depth and diversity. | Materials offer some additional depth and diversity to learning experience. | Materials are visually appealing but do not necessarily enhance the learning experience through depth or diversity. | Materials have little potential for impacting the learning experience. | |
| Technology (students) | 3 | 2 | 1 | 0 | N/A |
| Calculator | Appropriate activities and materials are provided to explore and prove conjectures. | Activities help students learn use to use calculator to explore concepts | Activities to learn to use calculators | No use of calculators or calculators used to check work only. | |
| Computer | Software allows students to explore and prove mathematical conjectures as well as practice skills. | Software allows students to explore mathematical conjectures as well as practice skills. | Software demonstrates processes for mathematical applications and provides practice for skills. | Drill and practice only | |
| Universal Access | 3 | 2 | 1 | 0 | N/A |
| Materials provide for universal access | Provides ways to adapt curriculum for all students (e.g., different learning styles, learning difficulties, English language learners, advanced learners.) | Provides some ways to adapt curriculum to meet assessed learning difficulties. | Provides limited strategies to assist learning challenged or high ability students. | Universal access is not addressed. | |

| Assessment | 3 | 2 | 1 | 0 | N/A |
|--|--|--|--|---|------------|
| Provides a variety of assessment options | Multiple measurements of individual student progress occur at regular intervals ensuring success of all students. | Assessment requires students to apply some concepts and occur only at the end of units or chapters. | Assessment requires students to apply few concepts and provides few measures of individual progress. | A single assessment method is used for summative purposes only. | |
| Assessment tools | Scoring tools and rubrics in assessment package. | Some scoring tools and rubrics provided. | Very few assessment tools are provided. | Answer keys to paper and pencil assessments. | |
| Assessment alignment to building understanding | Assessments measure what students understand and can do through well designed mathematical tasks and applications. | Assessments measure what students understand through simple mathematical tasks and contrived applications. | Assessments measure what students can do at all depth of knowledge levels. | Assessments measure low levels of depth of knowledge. | |