Kansas Instructional Curriculum / Resource Adoption Process

Produced by the Kansas State Department of Education in collaboration with educators across the state of Kansas.

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Table of Contents

Background
Kansas Instructional Curriculum / Resource Adoption Process

Why is there a Curriculum / Resource Adoption Process?

Kansas teachers and administrators need to feel confident that they are choosing mathematics resources that will positively impact their students' achievement. This committee was formed to provide an outline of a process in reviewing resources.

Curriculum and other instructional resources play a significant role in the mathematics that is taught and learned. Educators will remember from education courses the various types of curricula explained by research. The types described by Glatthorn, Boschee, Whitehead, & Boschee (2012) are the recommended curriculum, written curriculum, supported curriculum, taught curriculum, tested curriculum, and learned curriculum. When researching and analyzing curriculum keep in mind the outcomes expected for your school or district and how the different types impact what students actually learn.

It is difficult to separate curriculum from the instructional practices employed by teachers when analyzing effectiveness. A quality curriculum should be provided to educators but quality professional development that is continuous and focused must also be provided (National Research Council, 2001). Educators should be aware of the interplay between the curriculum adopted and the instruction provided.

Once a curriculum is provided to educators, a purposeful and thoughtful plan must be utilized when implementing the units and the individual lessons. This does not mean that the curriculum is adhered to without thought toward the needs of the students that are in the classrooms. Educators need to understand those educational needs and make informed modification and adaptations within the curriculum as necessary, without losing sight of the end goal in mathematics. Maintaining rigor is essential!

As a group of committed mathematics educators we believe that all students can learn mathematics at high levels and that all students deserve a robust, rigorous, and appropriate education. Mathematics education is constantly evolving, and as a result, mathematics resources continually evolve. We recognize that mathematics resources are an investment for your school and our children, so we are providing this document as a guide for your resource adoption process. We hope this document will assist in focusing on important mathematics for students now and in the future.

The cycle of standards adoption and curricula / resources adoptions

As we all experience different curricular cycles within our districts, it is the opinion of this committee that the most beneficial timing of this process would be coordinated with the standards adoption cycle. Our state is required by law to review content standards every seven years. This does not necessarily mean that our standards will make significant changes each time but they will be reviewed. Selected educators from across the state meet to review the current standards and decide if they are good as they are, do they need some revisions, or do they need to be completely rewritten.

Thinking about the seven year cycle, a district would be best served to review new curricular resources in a similar cycle within a year or two of the adoption of new state standards. Utilizing this cycle will allow districts a chance to follow the same process with their curriculum. Educators can review curriculum to determine the following: the curriculum is good to go since it reflects the intent and design of the standards, it needs some revisions, or the curriculum needs to be completely changed.

Phases Flow Chart

This chart lays out the flow from phase to phase with some guidance to the amount of time for each phase. Some phases will be very quick while other phases will take more time. The most important idea is to allow all educators to have the information necessary to collect information about each curricula/resource in action before making decisions.

Phase 1: Create a Math Team to navigate through the process and establish or revise a district Vision/Beliefs/Philosophy of mathematics *(Aug – Sept)*

Phase 2: Conduct Content & Pedagogical Training for educators *(Sept – Oct)*

Phase 3: Examine Independent Research concerning math curricula/resources *(Oct – Nov)*

Phase 4: Piloting various curricula/resources *(Jan – Mar/Apr)*

Phase 5: Selection of the curriculum/resource *(Mar/Apr – May)*

Phase 6: Educate all Stakeholders in order to implement the curriculum/resource effectively *(May – Aug)*

Phase 1

Create a Math Team to Navigate Through the Process and Establish or Revise a District Vision/Beliefs/Philosophy of Mathematics

1. **The math team should be vertical and horizontal** - The team should have representation from all grades or at least smaller grade bands. This will depend on the size of the school or district. Each teacher on the team should be very familiar with the standards and should have read the learning progressions, at a minimum, but could also be familiar with other current math education research.
2. **Consider asking a teacher from outside the district** - Choose a well-respected educator from outside your district. Try to choose someone who will ask critical questions throughout the process and is well informed concerning mathematics education research about the learning and teaching of mathematics.
3. **Now you need to educate your team concerning the process -**
    a. **Process** - The team will need to feel comfortable in asking hard questions. In order to build the level of comfort necessary for this work, your team will need to allow for time in setting expectations and teambuilding. The team will also need to know the entire evaluation process with estimated deadlines.
    b. **Roles** - Each member should feel comfortable in the roles that will be defined for them during the training. Teachers will be participating in specific resource trainings, evaluating those resources individually, comparing the resources to each other, and finally determining which ones to submit for approval. Administrators will also participate in resource trainings, but their role should be observing teachers using the resources and asking students about their experiences with the different resources.
    c. **Expectations** - Clear expectations need to be established for all members of the team in line with their roles.

As a district and/or building begins the process of selecting math resources, it is important that they take the time to intentionally and purposefully think about their vision/beliefs/philosophy of mathematics.

- Why is it important to teach mathematics?
- What kind of thinkers are we trying to develop in our math classrooms?
- Why is mathematics important in the development of those thinkers?

Simon Sinek in his book Start With Why says,

> "Knowing your WHY is not the only way to be successful, but it is the only way to maintain a lasting success and have a greater blend of innovation and flexibility. When a WHY goes fuzzy, it becomes much more difficult to maintain the growth, loyalty and inspiration that helped drive the original success." p.50

Access this link to Simon Sinek's TedTalk concerning "Starting with WHY" - https://www.ted.com/talks/simon_sinek_how_great_leaders_inspire_action

Phase 2
Content Training for Educators

1. **Kansas Math Standards**
   (Includes Content Standards and Standards for Mathematical Practice)

   A. ***Kansas Math Standards*** - Members need to have access to all standards (K-12 content standards and standards for mathematical practice). It may be beneficial to have both the electronic version and a hard copy for taking notes.
   http://community.ksde.org/Default.aspx?tabid=5276
   Training – A session should be provided that will focus on showing the connections between the standards and the content within the math learning progressions (more information listed in the Math Learning Progressions section). This training should also include the Mathematics Teaching Practices (more information listed in section concerning Pedagogical Training for Educators).

   B. ***Grade Level FOCUS documents and the Critical Areas for COHERENCE documents*** - These documents need to be thoroughly explained so educators understand how these provide direction for teachers in accomplishing the intent of the standards. These should be referred to often when examining resources.
   http://community.ksde.org/Default.aspx?tabid=6340

   C. ***Fluency*** - Members need to understand the difference between fluency and rote memorization detached from meaning. The KSDE published White paper should be referenced and shared during the training session.
   http://community.ksde.org/LinkClick.aspx?fileticket=PvDI8LdQAbI%3d&tabid=6036&mid=14879

2. **Math Learning Progressions and the Kansas Math Standards**
   A. ***Math Learning Progression documents*** - all members of the committee need to read and analyze each math learning progression in order to accomplish their work. The committee members should read the progressions and understand the mathematics and the pedagogy necessary in the instruction of mathematics that is explained within these learning progressions.
   http://community.ksde.org/Default.aspx?tabid=6174

   B. ***Kansas Math Standards*** – the Kansas Math Standards should be examined alongside the math learning progressions. The standards are a condensed version of the progressions. The committee members should refer back to the standards while they are reading and analyzing the progressions to make note of how the math ideas are connected. We would like to caution groups in creating checklists that divide the standards into disconnected skills. This does not advance the

interconnectedness necessary for building a true understanding of mathematics concepts and ideas.

http://community.ksde.org/Default.aspx?tabid=5276

Training - If necessary, a training session about the progressions and standards could be offered so the members understand how the progressions are built and the type of reading necessary to fully understand the mathematics content and concepts explained in each progression. This also allows conversations concerning the Kansas Math Standards and the big math ideas that are essential in creating understanding of mathematics.

Note: Some grade band teams may determine they need extra time to read and discuss in small groups to gain a full understanding.

Pedagogical Training for Educators

1. **Principles to Actions**

   NCTM's *Principles to Actions* addresses the gap between the adoption of rigorous state standards and the implementation of those standards. This resource presents research-informed actions for teachers, instructional coaches, specialists, administrators, educational leaders, and policymakers. The *Guiding Principles* and *Effective Math Teaching Practices* encourage the development of conceptual understanding and reasoning as well as skill fluency through a coherent curricula, effective instruction, and informed assessment.

2. **Math Teaching Practices**

   Many parents and some educators believe students should be taught the way they were taught: memorizing facts, formulas, and procedures with repeated practice but not built on conceptual understanding. *Principles to Actions* features high-leverage teacher actions and examples that foster mathematical understanding for all students.

   http://www.nctm.org/Conferences-and-Professional-Development/Principles-to-Actions-Toolkit/Resources/7-EffectiveMathematicsTeachingPractices/

Mathematics Teaching Practices
Establish mathematics goals to focus learning. Effective teaching of mathematics establishes clear goals for the mathematics that students are learning, situates goals within learning progressions, and uses the goals to guide instructional decisions.
Implement tasks that promote reasoning and problem solving. Effective teaching of mathematics engages students in solving and discussing tasks that promote mathematical reasoning and problem solving and allow multiple entry points and varied solution strategies.
Use and connect mathematical representations. Effective teaching of mathematics engages students in making connections among mathematical representations to deepen understanding of mathematics concepts and procedures and as tools for problem solving.
Facilitate meaningful mathematical discourse. Effective teaching of mathematics facilitates discourse among students to build shared understanding of mathematical ideas by analyzing and comparing student approaches and arguments.
Pose purposeful questions. Effective teaching of mathematics uses purposeful questions to assess and advance students' reasoning and sense making about important mathematical ideas and relationships.
Build procedural fluency from conceptual understanding. Effective teaching of mathematics builds fluency with procedures on a foundation of conceptual understanding so that students, over time, become skillful in using procedures flexibly as they solve contextual and mathematical problems.
Support productive struggle in learning mathematics. Effective teaching of mathematics consistently provides students, individually and collectively, with opportunities and supports to engage in productive struggle as they grapple with mathematical ideas and relationships.
Elicit and use evidence of student thinking. Effective teaching of mathematics uses evidence of student thinking to assess progress toward mathematical understanding and to adjust instruction continually in ways that support and extend learning.

Principles to Actions, NCTM (2014), p 10

These practices are rooted in the *Guiding Principles for School Mathematics*. These principles articulate the expectation that all students are given fair access to high-quality math curriculum and instruction.

https://www.nctm.org/uploadedFiles/Standards_and_Positions/PtAExecutiveSummary.pdf

Guiding Principles for School Mathematics
Teaching and Learning. An excellent mathematics program requires effective teaching that engages students in meaningful learning through individual and collaborative experiences that promote their ability to make sense of mathematical ideas and reason mathematically.
Access and Equity. An excellent mathematics program requires that all students have access to a high-quality mathematics curriculum, effective teaching and learning, high expectations, and the support and resources needed to maximize their learning potential.
Curriculum. An excellent mathematics program includes a curriculum that develops important mathematics along coherent learning progressions and develops connections among areas of mathematical study and between mathematics and the real world.
Tools and Technology. An excellent mathematics program integrates the use of mathematical tools and technology as essential resources to help students learn and make sense of mathematical ideas, reason mathematically, and communicate their mathematical thinking.
Assessment. An excellent mathematics program ensures that assessment is an integral part of instruction, provides evidence of proficiency with important mathematics content and practices, includes a variety of strategies and data sources, and informs feedback to students, instructional decisions, and program improvement.
Professionalism. In an excellent mathematics program, educators hold themselves and their colleagues accountable for the mathematical success of every student and for their personal and collective professional growth toward effective teaching and learning of mathematics.

Principles to Actions, NCTM (2014), p 5

Teachers are the key to student understanding and learning of mathematical concepts and ideas. Their practices and beliefs about students and the opportunities available to their students will determine the learning atmosphere in classrooms and the direction their students will travel as they manuever through the various educational environments.

The following table lays out unproductive and productive beliefs about mathematics instruction and learning. Your training session should provide an opportunity for the educators to examine this table and discuss their own beliefs about teaching mathematics.

Beliefs about teaching and learning mathematics	
Unproductive beliefs	**Productive beliefs**
Mathematics learning should focus on practicing procedures and memorizing basic number combinations.	Mathematics learning should focus on developing understanding of concepts and procedures through problem solving, reasoning, and discourse.
Students need only to learn and use the same standard computational algorithms and the same prescribed methods to solve algebraic problems.	All students need to have a range of strategies and approaches from which to choose in solving problems, including, but not limited to, general methods, standard algorithms, and procedures.
Students can learn to apply mathematics only after they have mastered the basic skills.	Students can learn mathematics through exploring and solving contextual and mathematical problems.
The role of the teacher is to tell students exactly what definitions, formulas, and rules they should know and demonstrate how to use this information to solve mathematics problems.	The role of the teacher is to engage students in tasks that promote reasoning and problem solving and facilitate discourse that moves students toward shared understanding of mathematics.
The role of the student is to memorize information that is presented and then use it to solve routine problems on homework, quizzes, and tests.	The role of the student is to be actively involved in making sense of mathematics tasks by using varied strategies and representations, justifying solutions, making connections to prior knowledge or familiar contexts and experiences, and considering the reasoning of others.
An effective teacher makes the mathematics easy for students by guiding them step by step through problem solving to ensure that they are not frustrated or confused.	An effective teacher provides students with appropriate challenge, encourages perseverance in solving problems, and supports productive struggle in learning mathematics.

Principles to Actions, NCTM (2014), p 11

3. **Growth Mindset in Mathematics** (also called **Mathematical Mindset**)
   The term 'growth mindset' comes from the groundbreaking work of Carol Dweck. She identified that everyone holds ideas about [his or her] own potential. Some people believe that their intelligence is more or less fixed in

math – that you can do math or you can't. About 40% of students have these damaging 'fixed mindset' ideas. Another 40% have a 'growth mindset' – they believe that they can learn anything and that their intelligence can grow. The other 20% waver between the two mindsets.

Students with a fixed mindset are those who are more likely to give up easily, whereas students with a growth mindset are those who keep going even when work is hard, and who are persistent. The two mindsets are associated with different achievement pathways . . . .

Jo Boaler's website *YouCubed*

Research from Boaler (2016) shows that every time we make a mistake, our brains grow. This is counterintuitive to a performance culture with a focus on "correct answers." The vast majority of classrooms are structured to give work that students will get correct. Additionally, our performance-based culture devalues mistakes, punishing students for mistakes and wrong answers. Yet studies of business people show that the most successful individuals make more mistakes than those who are less successful. These findings should prompt educators to reconsider the value of mistakes and change the messages received about mistakes.

According to Dweck (2007), for the last few decades many parents and educators have been more interested in making students feel good about themselves in math and science than in helping them achieve. The focus needs to be on learning.

As with an absence of mistakes, **productive struggle** is often nonexistent in classrooms. Productive struggles doesn't mean that you just allow students to learn mathematics without any type of guidance or support. It does mean that we provide students tasks and sitatutions that will allow them to stretch their brains mathematically. We provide problems that aren't easily solved but not impossible to solve. Students should understand that struggling is learning and should be an expected part of their education.

See the following table to read about the tasks students should be solving in mathematics classes. The table lays out the expectations for the students as they are solving complex math tasks, the actions the teachers are taking to support students, and the indicators of success.

Expectations for students	Teacher actions to support students	Classroom-based indicators of success
Most tasks that promote reasoning and problem solving take time to solve, and frustration may occur, but perseverance in the face of initial difficulty is important.	Use tasks that promote reasoning and problem solving; explicitly encourage students to persevere; find ways to support students without removing all the challenges in a task.	Students are engaged in the tasks and do not give up. The teacher supports students when they are "stuck" but does so in a way that keeps the thinking and reasoning at a high level.
Correct solutions are important, but so is being able to explain and discuss how one thought about and solved particular tasks.	Ask students to explain and justify how they solved a task. Value the quality of the explanation as much as the final solution.	Students explain how they solved a task and provide mathematical justifications for their reasoning.
Everyone has a responsibility and an obligation to make sense of mathematics by asking questions of peers and the teacher when he or she does not understand.	Give students the opportunity to discuss and determine the validity and appropriateness of strategies and solutions.	Students question and critique the reasoning of their peers and reflect on their own understanding.
Diagrams, sketches, and hands-on materials are important tools to use in making sense of tasks.	Give students access to tools that will support their thinking processes.	Students are able to use tools to solve tasks that they cannot solve without them.
Communicating about one's thinking during a task makes it possible for others to help that person make progress on the task.	Ask students to explain their thinking and pose questions that are based on students' reasoning, rather than on the way that the teacher is thinking about the task.	Students explain their thinking about a task to their peers and the teacher. The teacher asks probing questions based on the students' thinking.

Principles to Actions, NCTM (2014), p 49

Tasks versus Problems

There is a difference between “assigning problems” versus “assigning tasks.” Often textbooks are full of “problems,” sometimes connected, but often not. These problems tend to have one correct answer and are often limited to one strategy. “Problems” tend to focus on practicing procedures or memorizing basic number combinations. Tasks, on the other hand, develop understanding of concepts and procedures through problem-solving, reasoning, and discourse. Tasks have multiple approaches and (sometimes) multiple correct answers.

Dan Meyer (Chief Academic Officer at Desmos & one of Tech & Learning's 30 Leaders of the Future) often refers to how textbooks provide too much information to students. Students begin to rely so much on the specifics that they aren’t thinking as critically as they should.

Implement Tasks that Promote Problem Solving and Reasoning

Research on mathematical tasks over the last two decades has yielded major findings:

- Not all tasks provide the same opportunities for student thinking and learning (Heibert et al., 1997; Stein et al., 2009)
- Student learning is greatest in classrooms where the tasks consistently encourage high-level student thinking and reasoning and least in classrooms where the tasks are routinely procedural in nature. (Boaler and Staples, 2008; Heibert and Wearne, 1993; Stein and Lane, 1996)
- Tasks with high cognitive demands are the most difficult to implement well and are often transformed into less demanding tasks during instruction. (Stein, Grover, and Henningsen, 1996; Stigler and Heibert, 2004)

Tasks must promote reasoning and problem-solving, having a “low floor and high ceiling.” This means that tasks can be accessed through multiple methods and representations by all students while providing multiple opportunities for students to increase their knowledge and build on ideas. Tasks should allow a variety of solution strategies.

Principles to Actions, NCTM (2014), p 17

The following table shows the teachers' actions and the students' actions that are visible when tasks are being implemented that support productive struggle and mathematics worth engaging in and solving.

Implement tasks that promote reasoning and problem solving **Teacher and student actions**	
What are *teachers* doing?	**What are *students* doing?**
Motivating students' learning of mathematics through opportunities for exploring and solving problems that build on and extend their current mathematical understanding. Selecting tasks that provide multiple entry points through the use of varied tools and representations. Posing tasks on a regular basis that require a high level of cognitive demand. Supporting students in exploring tasks without taking over student thinking. Encouraging students to use varied approaches and strategies to make sense of and solve tasks.	Persevering in exploring and reasoning through tasks. Taking responsibility for making sense of tasks by drawing on and making connections with their prior understanding and ideas. Using tools and representations as needed to support their thinking and problem solving. Accepting and expecting that their classmates will use a variety of solution approaches and that they will discuss and justify their strategies to one another.

Principles to Actions, NCTM (2014), p 24

Jo Boaler (2016) shares these characteristics for rich mathematical tasks that increase student learning:

1. Open up the task so that there are multiple methods, pathways, and representations.
2. Include inquiry opportunities
3. Ask the problem before teaching the method.
4. Add a visual component and ask students how they see the mathematics.
5. Extend the task to make it lower floor and higher ceiling.
6. Ask students to convince and reason; be skeptical.

Be sure teachers understand that the focus on good student learning is much more important that content alignment. Look for references and direct connections to the Progressions Documents and to the Practice Standards. This necessitates that teachers are very familiar with both of these documents and understand the key role they play in teaching mathematics. Conceptual understanding should be balanced with procedural fluency. "Analyzing the nature of the instructional tasks and activities - this is as important as analyzing content." Problem solving and reasoning should receive "explicit and regular attention" (Briars, 2014)

Phase 3
Examine Independent Research Concerning Math Curricula

Using research studies to gain more information about curricula is important. Publishers will provide research studies but it is important to find out if these studies were paid for by the publishing company or if this was done by an independent research organization to provide a more unbiased review.

The following should be used to gather information:

- Websites
  - EdReports - https://www.edreports.org/math/reports/index.html#!?f=&b=title&o=0
  - Evidence for ESSA - https://www.evidenceforessa.org/programs/math/elementary
  - What Works Clearinghouse (WWC) - https://ies.ed.gov/ncee/wwc/FWW/Results?filters=,Math
- Non-local control states such as
  - Hawaii: https://community.ksde.org/LinkClick.aspx?fileticket=da9D2UpQ_K0%3d&tabid=6033&mid=14870
  - Louisiana: https://www.louisianabelieves.com/academics/ONLINE-INSTRUCTIONAL-MATERIALS-REVIEWS/curricular-resources-annotated-reviews
- Other districts

Tools for evaluating resources

- KSDE rubrics - http://community.ksde.org/Default.aspx?tabid=5842
  There is a quick review tool as well as an extended review tool.
- K-8 Publishers Criteria by *Student Achievement Partners* published online at Achievethecore.org - https://achievethecore.org/page/267/publishers-criteria-for-the-ccss-in-mathematics
- CCSSO-NCSM Materials Analysis Project Tool - https://www.mathedleadership.org/ccss/materials.html

Phase 4
Piloting the Curricula/Resources

1. **Teachers need to pilot more than one curriculum/resource.** If teachers use only one resource, then they don't have anything to compare it with and will automatically be biased toward the curriculum/resource that they piloted. In order to provide comparisons, more than one should be tried out by each teacher.

2. **Make sure you set up Pilot Cycles that include opportunities for the teachers to provide feedback about each curriculum.** Each curriculum/resource should receive a predetermined number of weeks to be piloted by the teachers with a feedback session scheduled immediately after each cycle. Once two cycles have been completed, the feedback session should add in a comparison between the two piloted curricula/resources. If you are able to do three or more cycles, then feedback sessions should include comparison opportunities for all curricula/resources tried up to that point.

Piloting curricula/resources is similar to buying a car. You can sit in a car, touch the car, smell the car; but if you don't DRIVE the car, you really don't know what it is you are purchasing. This isn't about driving in the parking lot, but on the highway to really test it out.

This applies to resource adoptions too! In order to effectively use a resource, teachers need a voice in the process, and the opportunity to truly "try out" the resource in order to evaluate it. This isn't *flipping/clicking through* the resource (like driving in the parking lot). Rather, this is committing to using a pilot resource in an upcoming unit of instruction and fully committing, using all the parts and pieces (strategies, practice opportunities, assessments, etc.). Then, and only then, will teachers be able to evaluate a resource for strengths and weaknesses.

It is important to pilot more than one resource. Typically two cycles of piloting work the best for most schools/districts. After the first cycle is complete and feedback is received teachers, then try a second resource, using the same process as above.

Depending on the size of the district, it might look different. There should be participation in every grade level and course that will be adopting, and all options on the table that meet the basic guidelines and pass the non-negotiables for your district. Evaluation of resources needs to be beyond "I like this one." Rubrics are usually a good idea (such as the rubrics listed in Phase 3), so there is some quantitative and qualitative data to look through when making a final decision.

Here is a general guideline from the CA Department of Education (2015) on best practices for piloting curriculum with districts of various sizes. Link to full document:

https://www.cde.ca.gov/ci/cr/cf/documents/impilotingguidelines.doc

Small Districts: (1A, 2A)

1. Form a committee including admin, teacher(s), parents or other district personnel to choose at least two curricula to try out.
2. Contact publishers for piloting freebies
3. Choose 1-2 teachers to decide on using all (or selected) components of each curricula for one academic year. If only one teacher is piloting, the committee will need to decide which of the two, or more, curricula to pilot at this time.
4. May want to compile a list during, or at the end of the semester, to make notes of pros/cons along the way.
5. After the trial year, have the teachers compare/contrast results (might include pre/post-tests, anecdotal evidence from pilot classrooms, student/parent feedback)
6. Make a decision as a group for the following academic year

Medium & Large Districts: (3A, 4A, 5A, 6A)

1. Form a committee including admin, teachers, parents or other district personnel to choose at least two curricula to try out.
2. Contact publishers for piloting freebies
3. Choose 4-5 teachers to decide on using all (or selected) components of each curricula for one academic year.
4. Have the teachers attend a PD session (ideally provided by the publisher) to learn about the different components of the curricula and agree on what pieces will be used or not used.
5. May want to compile a list during, or at the end of the semester, to make notes of pros/cons along the way.
6. After the trial year, have the teachers compare/contrast results (might include pre/post-tests, anecdotal evidence from pilot classrooms, student/parent feedback)
7. Make a decision as a group for the following academic year

Forms and Documents for Collecting Information

We are providing some documents in the next few pages that could be used by your team to assist in collecting data concerning the curricula/resources used in the pilots. These should be modified to fit the needs of your district/school.

Overall rating:	0	1	2	3

Program Implementation Feedback Form

Program Name: _____ Date: _____

Team members: _____

Strengths:

Challenges/Obstacles:

Comparison of Programs Form

Name of Programs: _____ Date: _____
Team members: _____

Rank the Programs below:

1.

2.

3.

Explain why program number 1 ranked the highest. Be specific and give comparisons based on the standards and the learning progressions.

Phase 5
Selection of Curriculum / Resource

1. Once the pilots (at least 2 cycles) have been completed then the feedback must be compiled by the facilitators of the pilot committee.
2. A meeting should be scheduled so district leaders and building leadership teams are presented with the information collected. Discuss the overall thoughts and takeaways, then collect feedback from these groups.
3. After meetings to share the initial data are completed, the data needs to be synthesized and taken to district administration to be shared.
4. A discussion of the data and the financial considerations should take place and a final recommendation can then be determined and taken to the local board of education.

A final thought from past NCTM President, Diane Briars (2014) – “Rate and discuss rather than score. Analysis of materials is qualitative rather than quantitative; that is, reviewers are judging the quality of content treatment, instructional activities, and so forth, in different materials. Categories such as “not found”, “high” and “low” can be more useful than numerical scales.”

Phase 6

Educate All Stakeholders in Order to Implement the Curriculum/Resource Effectively

Board members, site councils, math nights, special presentations - all will be necessary to answer questions and provide information about a way of teaching that differs from what most parents and community members experienced. This will require time and the willingness to address all questions. It might be beneficial to bring in someone from outside the community who might lend an air of expertise that some stakeholders will need to experience.

Another group of stakeholders that must be recognized and educated are the teachers who will be using the material. All training that was used with the original math team should be provided to all teachers. The importance of supporting the new choice when speaking outside of the educational community is essential to the success of the new program.

How Does This Process Connect to KESA and the SBOE Vision and Goals?

Kansas State Board of Education Vision: *Kansas leads the world in the success of each student.*

Kansas State Board of Education Goals:
A successful Kansas high school graduate has the academic preparation, cognitive preparation, technical skills, employability skills and civic engagement to be successful in postsecondary education, in the attainment of an industry recognized certification or in the workforce, without the need for remediation.

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