SEQUENCED BENCHMARKS FOR GEOGRAPHY AND HISTORY

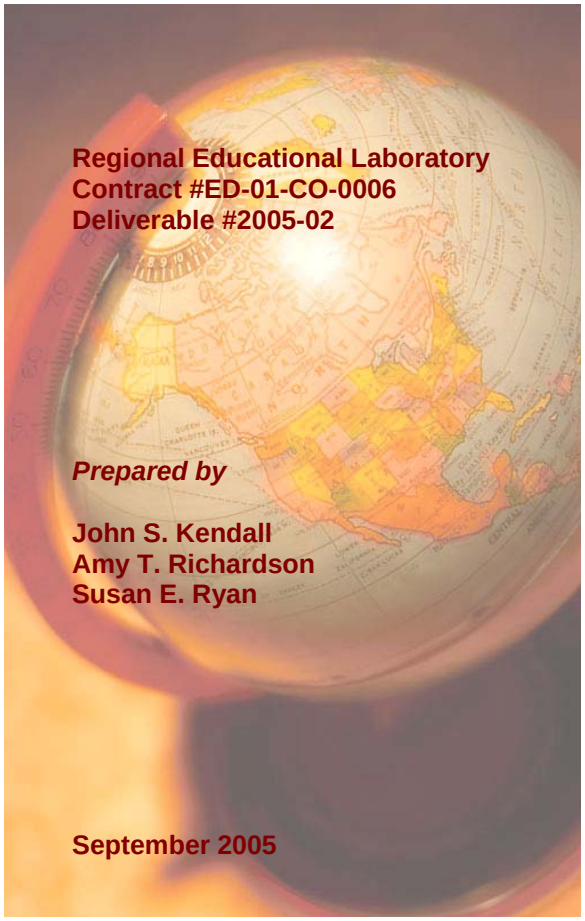

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TABLE OF CONTENTS

PREFACE

This report is one in a series of reference documents designed to assist those who are directly involved in the revision and improvement of content standards, as well as teachers who use standards and benchmarks to guide everyday instruction. Earlier reports on the language arts, mathematics, and science provided benchmarks organized into instructional sequences by topic. Each sequence is based upon an analysis of the order of content as it appears among a set of highly rated state standards. Although the reports do not assign content to specific grades or recommend that content be taught at specific grades, they do provide information about how benchmarks might best appear in a sequence of instruction and include information on how that content is organized within the state standards documents analyzed. These reports are intended to inform and guide state or district curriculum directors or others who, starting from content that is placed within broad grade bands, need to assign specific grades to benchmarks or objectives. A number of teachers also have reported this work to be useful as they plan classroom instruction.

INTRODUCTION

At the beginning of the standards movement in the early to mid-1990s, most states delineated the content of standards as benchmarks or objectives for a set of broad grade-level ranges, such as K–4, 5–8, and 9–12. As states have revised their standards, usually as part of an established review cycle, they have described them in narrower grade ranges, for example, K–2, 3–5, 6–8, and 9–12. Some states have taken this process a step further by describing content for *each* level, from kindergarten through grade 8. A significant number of states, however, still do not establish grade-by-grade distinctions in standards. This is especially true in the social studies.

This lack of grade-level benchmarks or objectives allows districts some freedom to define the local curriculum yet, for many districts, it also presents a problem. To effectively implement standards, districts must translate these grade-range benchmarks into meaningful grade-level benchmarks or objectives for day-to-day schooling. Unfortunately, little guidance has been available to districts as they undertake this process. Although national professional organizations might be considered the best authority in this regard, none has produced grade-by-grade recommendations — perhaps because of the lack of research informing the placement of content at specific grade levels. In addition, many organizations avoid the assignment of content to a grade because it may seem overly prescriptive. Yet, the problem for school districts remains. In most schools, content must be *assigned* to a specific grade because it must be *taught* at a specific grade.

If no authoritative document establishes a preferred instructional sequence that can then be used to inform benchmarks placement at specific grades, how can such a sequence be established? One approach is to compare a number of highly-rated standards documents to determine whether, for any subject-area topic, they share a consistent approach to the sequence of instruction. Because each document represents the consensus of educators and subject-matter experts for a specific sequence of instruction, a cross comparison of the documents will reveal sequences that are held in common and so have some validity. All standards-setting is a matter of consensus; this analytic approach is an effort to find a consensus about content sequencing that might not otherwise be apparent. The approach has been used with some success in instructional sequences for the subject areas of science (Kendall, DeFrees, & Richardson, 2002), mathematics (Kendall, DeFrees, & Williams, 2004), and the language arts (Kendall, Snyder, & Flynn, 2003). Users of these previous studies have reported that the sequencing information is useful both in assessing the organization of their state standards and as a help in developing district objectives. Teachers also report consulting the sequenced topics to help them organize instruction.

The purpose of this study is to determine what instructional sequences might be revealed through an analysis of standards documents in the subject areas of geography and history.

Source Documents

A variety of state standards documents have been highly rated for their standards in geography and history. For this study, McREL staff selected five state documents to use in identifying the common instructional sequences.

For the analysis in both geography and history, three state documents in the social studies were selected: Alabama, Arizona, and Kansas. In addition, the curriculum documents from Louisiana and South Carolina were chosen for the geography content area; for the area of history, standards from California and Virginia were used. The method for the selection of these documents is described in detail in the geography and history sections.

Method

In order to compare geography and history content across the state documents, each of which varies somewhat in the content described, a uniform set of benchmarks was required for reference. To create this reference point, the study authors turned to an earlier McREL study on common content in geography and history (Kendall, Schoch-Roberts, & Young-Reynolds, 2000). This uniform set of benchmarks was not used in the actual sequencing of content; rather, the benchmarks were used only as a means for tracking and organizing the content of the five standards documents analyzed. In more than one case, in fact, the benchmark content was revised in order to more closely align with content for which some instructional sequence was supported. For example, an original benchmark in geography stated:

> *Knows the purposes and features of maps and globes (e.g., relative location terms, cardinal directions, simple grid systems, basic map symbols)*

After the analysis across the five state documents, this content was revised to clarify an aspect that could be supported as part of an instructional sequence. The benchmark was rewritten as:

> *Uses cardinal directions to locate familiar places on maps*

This construction allowed a sequence that would not otherwise have been supported.

In addition to identifying a set of benchmarks for purposes of comparison across states, it also was necessary to work from a set of topics to help identify the thread of an instructional sequence. A topic names an idea that organizes a small collection of benchmarks or objectives. The "topic" level of organization is more specific than a standard, but more general than a benchmark. The study authors referred to McREL's online standards database as a source of potential topics in geography and history. The database, the online equivalent of *Content Knowledge: A Compendium of Standards and Benchmarks for K–12 Education* (3rd ed.) (Kendall & Marzano, 2000), provides topics that organize material across 137 standards documents representing 14 content areas. The topics used for geography and history will be fully described in those sections.

The articulation of benchmarks under each topic in this report was based entirely on the presence of that content in the state standards source documents

used for the study. Each state document was reviewed for any *sequence information* it provided by topic. Sequence information is defined as the presence of a concept or skill in a grade that is topically related to another concept or skill at a higher or lower grade. In any given document, two or more topic-related ideas must appear separated by at least one grade to be considered informative in the development of content that logically progresses from one grade to the next. However, if two benchmarks addressing a given topic appeared in the same grade, it was inferred that the authors of the document did not consider the difference between content to be significant enough that the benchmark or objective should be addressed in separate grades. In such a case, the state document did not aid in the sequencing of content.

Thus, each articulation under a topic was established only with sufficient evidence from the state standards documents. Closely related ideas beneath a topic often appeared at differing grade levels in each of the standards documents, but as long as these ideas were presented in the same order in each of *at least three documents*, a sequence was established. For example, four standards documents state that students should understand the ways in which people depend on the physical environment for their needs (see Topic 4, Impact of Environment on Society). Three of these documents identify for study at a later grade the concept of how humans adapt to variations in the physical environment. All five documents used for this study state that students should understand, at a still later grade, the concept that natural hazards occur in the physical environment and understand their effect on people and the environment. In this case, then, sufficient evidence is available to support a specific sequence of instruction for the topic.

In other words, if the presence of sequenced content was established in any one document, the same relative sequence — that is, the sequence from earlier to later grade — had to be supported by at least two additional documents in order to be considered useful relative to the articulation of content within the topic. One additional requirement was established to ensure that the sequences were meaningful. If a sequence of content was found in *reverse* order in any other standards document, it was removed from consideration. For example, under the topic of historical change and continuity, most of the state documents addressed the more general idea of historical change in early grades, prior to addressing content on the idea of a chronology of events within an era. One state, however, did not address historical change until later grades, after introducing the idea of events within an era. Because of this reversal of grades, no sequence of content was established, despite the evidence of content sequence available from other states.

Once an articulation was established by sufficient evidence from the standards documents, the range of articulation was assigned based on grade information. For example, suppose that one document placed a concept under a topic at grade 3 and the related concept at grade 5, and a second document placed the same concept under grade 4 and the related concept at grade 6. In such a case, the first concept would be identified with the 3–5 grade range; the second, within 4–6. This means that, although both concepts

could conceivably be addressed in grade 4 or in grade 5, the evidence supports the placement of the content in differing grades, somewhere within the specified grade ranges.

A Special Case: The Social Studies

As suggested in the introduction, the method employed here for uncovering useful instructional sequences is based on a number of assumptions, two of which deserve special mention. The first is that educators and content experts place academic content in a benchmark sequence that reflects what is best for student learning. In decades past, such an assumption would not have been tenable. As educator Hilda Taba (1962, 1967) observed, the curriculum of the 1920s was rife with detailed sequences of specific, factual content, but no attention was paid to the process of learning. Analyses of the content sequence of such curricula would not have uncovered meaningful instructional sequences, but simply a string of facts.

Yet the progressive education movement that developed in response to the one-sided curriculum of the 1920s introduced such an emphasis on the learner as an individual that it resulted in a curriculum deficient in the quality of content. Analysis of progressive curricula, therefore, would also not have produced useful sequences grounded in the content of the discipline. In the present day, the blending of the two approaches — identification of significant content and attention to the student as learner – has had a significant impact on the development of standards. Taba's design of the spiraling curriculum, which holds that specific sequences of ideas lead to and support larger concepts, has had continuing influence, though in practice there is still a lack of the research to support it and to support the appropriate placement of content relative to the child's ability.

In summary, the first assumption used within this report aligns with the idea, as the developers of *Benchmarks for Science Literacy* phrased it, that benchmarks are developed with the intent to identify "the antecedent ideas … needed for students to make conceptual and psychological sense" of the concepts they are to learn (Project 2061, 1993, p. 304).

The second assumption for the current method of analysis is that examining the commonalities in the sequence of content within highly-regarded state standards documents will surface a kind of de facto consensus among educators as to the strongest instructional sequences in the discipline. In other words, if there is agreement among educators about best practice in the order of content instruction, this will show up with some frequency in documents that are regarded as of high quality.

Based on the assumptions identified here, McREL was able to identify twenty-four topic sequences in its previously cited mathematics study. McREL's study on the language arts identified seventeen such sequences, and the science study, twenty-six. Finding sequences in the social studies, specifically, in history and geography, however, presented a unique challenge. The current study identifies just seven topic sequences in geography and two in history. As is further discussed in these sections, the lack of sequenced topics in these areas reflects a problem special to the social studies. When models of

curriculum influence the organization of standards, meaningful content sequences can be easily lost. Such often happened in the movement known as outcomes-based education (OBE), in which the curriculum was defined in terms of a dozen or so comprehensive tasks. Each task required students to incorporate content from multiple disciplines to solve a problem, such as determining the energy costs and social and economic infrastructure necessary for their morning shower. Using such tasks to organize and determine all content for the curriculum was problematic when attempting to determine whether students, having completed these tasks, would have mastered all the essential knowledge and skills. More problematic was that the structure provided no way for identifying what knowledge and skills might be more appropriately learned prior to others. Although the models are different in the social studies, the effect on sequencing for geography and history is much the same. For history, the type of content is also special factor. As is discussed in that section, the content of history presents special problems in terms of sequencing for the learner; in fact, such problems may in part account for the strong influence of curriculum models on the development of standards in the social studies.

How This Document Can Be Used

This collection of content sequenced by topic should prove useful for districts and schools seeking to assign their state's grade-range content to specific grades for instruction. It is quite likely that the topics presented in the following pages are addressed in nearly every state's geography and history standards. By reviewing each topic in turn, users can compare the content to their own state standards documents.

Of primary interest during such a review is whether or not all content identified in this study for a given topic also can be found in the state or district standards being compared. Because the content identified in this study is commonly found in highly-rated documents, readers may well decide that to adopt content not found in their own standards. Once the scope of content for a topic has been reviewed, the content should be examined for grade placement. This report provides two kinds of information to guide this process. First, the study indicates where content, in the form of benchmarks, appears in sequence relative to other content in the same topic across three or more states. Second, for each benchmark in a topic, the grade or grades at which that content is found in the state documents are also noted.

Throughout this work, readers should consider the impact that grade placement might have on ensuring that local standards continue to be aligned with their state standards. For example, if differing source documents indicate that given content could be placed at either grade 4 or 5, and the user's own state standards place very similar content at the K–4 grade band, then grade 4 would be the better choice. Similarly, any information available about the assessment of geography and history content should be part of the decision-making process. If geography content is assessed in the fall of grade 6, for example, the appropriate content should be placed in the prior grade so that students will have an opportunity to

learn the material before being tested on it.

Once a benchmark has been assigned to any one grade, the reader then should consider for grade assignment those benchmarks in the topic sequence that come before or after the identified benchmark (that is, that are positioned before or after the given benchmark in the charts that follow). The two primary questions for the assignment of a benchmark to a grade, then, are, Does the grade assigned to the benchmark appropriately reflect the grade range identified in the state standards? and, Does the assignment make sense in light of the benchmarks that appear in the prior and following grades? In similar fashion, the remaining topics should be reviewed for information that is available from the topic sequences in the course of making grade placement decisions.

It is important to keep in mind that concepts and sequences appear as they do within this study only because they appear in some consistent fashion across a number of documents. These documents are otherwise independent of each other and can significantly differ in their grade assignments of content. McREL's analysis focused only on the sequence of content instruction. It did not anticipate that all topics would fit together as if to reflect a coherent curriculum; the goal was simply to reflect what evidence there is that some concepts and skills are consistently taught earlier or later than others.

While research is not likely to support the idea that specific content should be part of instruction at only one particular grade, there does appear to be some agreement that certain concepts and skills can be articulated in a progression of understanding that helps students learn. This study identifies the articulation of content as it was expressed in a number of highly rated state standards documents. It also includes information about the grade levels at which that content first appears. It is expected that educators who seek to make decisions about which content should be covered in which grade will find this information useful.

GEOGRAPHY

Identification of National Reports

For the subject area of geography, two reports were used to help select the state documents analyzed in this study. One report was the American Federation of Teachers' (AFT) *Making Standards Matter* (1999), which includes ratings of the state standards in terms of specificity and clarity. The second report, "The State of State Standards in Geography" (in the *State of State Standards 2000*, Finn & Pitrelli, Eds.), was written by Susan Monroe for the Fordham Foundation.

Selection of Reference Documents

As noted in the introduction to this report, five state documents were selected for review for geography. The top five state documents for geography were selected by comparing information found in the two evaluation reports cited above. Specifically, the reviews of those states that received a "B" or above in the Fordham report on geography were compared with those states rated in the AFT's *Making Standards Matter* report as having clear and specific standards in

the social studies. The Fordham Foundation reviewed the geography and history content separately for each state; the AFT reviewed social studies as a whole for each state and gave ratings by school levels (primary, middle, and high school) rather than by subject area. The other subject areas commonly associated with the social studies — behavioral studies, civics, and economics — did not receive a separate review by either organization, and so could not be examined in this study. The analysis resulted in the selection of the following documents for the purpose of identifying sequenced content in K–12 geography:

- Alabama Course of Study: Social Studies (2004, February), by the Alabama State Department of Education
- Social Studies Standards (2000), by the Arizona Department of Education
- Kansas Curricular Standards for History-Government, Economics, Geography, and History (2004, December), by the Kansas State Board of Education
- Social Studies Content Standards (1997, May), by the Louisiana State Department of Education
- Curriculum Standards: Social Studies (2005), by the South Carolina State Department of Education

Since these ratings first appeared in the mid- 1990s, there has not been any comparable review of state standards documents by multiple organizations. Thus, in order to select standards documents for this report that are widely endorsed for their quality, this study is limited to the most current editions of documents last reviewed in the mid-1990s. However, we believe that these documents fairly represent the current state of content standards in geography. This view is based on our continued familiarity with state standards over the last 10 years as we have conducted our own studies or reviews for state and district clients. For this study of sequencing, it was preferable to select standards documents that were highly rated by multiple organizations some time ago, than to select documents that had been highly rated more recently, but by only a single organization.

SELECTION OF TOPICS

As described in detail in the introduction, the analytic process used to identify an instructional sequence required a comparison of state standards documents for any commonalities they share in the instructional sequence of a specific topic. A topic is a level of organization that is more specific than a standard, but more general than a benchmark, which names an idea that organizes a small collection of benchmarks or objectives. McREL's online standards database was a source of potential topics in geography. The database, the online equivalent of *Content Knowledge: A Compendium of Standards and Benchmarks for K–12 Education* (3rd ed.) (Kendall & Marzano, 2000), provides a synthesis of the material present in six significant national documents on geography content. In McREL's *Compendium*, several topics are commonly found within a standard, and each topic organizes two or more benchmarks (for a description of the process of topic

development and samples in mathematics and language arts, see Kendall, 2000). The list of topics investigated is presented in Exhibit 1.

By using the topics in this document as a basis for analysis, McREL analysts were able to track the presence or absence of sequenced geography content in each of the state documents in order to find content that was addressed in common. For example, in a prior study of mathematics benchmarks, McREL found that state standards shared a common sequence of instruction for the topic of fractions, as indicated by the grades at which specific benchmarks appeared within the standards. McREL found that students are first introduced to the concept that a unit can be divided into equal parts before they are expected to learn about the relative magnitude of fractions, or how to add and subtract fractions. Later still, they are expected to understand the characteristics and properties of fractions. Such an organization of ideas forms an instructional sequence for the topic of fractions.

FINDINGS

Seven geography sequences are identified on the following pages. This contrasts with the approximately two dozen sequences identified for science and mathematics and the seventeen identified for the language arts. The fact that so few instructional sequences could be identified in this study appears to be the result of the way in which the social studies and geography are organized within state standards. As described in the introduction, if a curriculum model is superimposed on standards, the potential developmental sequence of specific concepts can be easily obscured. For example, if geography concepts are only introduced when an historical event makes them particularly meaningful, then any sense of sequencing concepts in geography will be lost. An analysis of textbooks identified three approaches commonly used for organizing instructional content in the social studies: the gradual differentiation approach, the spiral curriculum approach, and the expanding communities framework. (Brophy, 1992). The gradual differentiation approach has most in common with a structure most commonly found in history content, and will be addressed in that section. The spiral curriculum approach is nearest the goal of this study, in that we seek to identify, by topic, those instructional sequences that build on one another over the K–12 span. It might also describe the approach by the Geography Education Standards Project (1994). These national standards, however, are described at K–4, 5–8, and 9–12, rendering them of little use for articulating grade-by-grade K–8 benchmarks, which is the ultimate goal of the sequencing project. The influence of these national standards can be recognized in a number of the standards documents under review here, and in fact, on the topics that could be sequenced. However, another curriculum design appears to have significantly affected the standards design of a number of documents and made the identification of sequenced benchmarks difficult. Specifically, the expanding communities framework, also known as the expanding horizons model, appears to have had a significant impact on the results of this study of state standards in geography.

Exhibit 1. Summary of Geographic Topics

Bias, meaning, and perspective Biodiversity Characteristics of places Cities and their related regions Climate types and regions Colonies and colonial systems Convergence and divergence of cultures Cooperation and conflict Cultural continuity and change Cultural diffusion, adaptation, and interaction Cultural regions Development, ideology, and structure of political systems Earth-Sun relations Economic conditions and society Economic development and growth Ecosystems and biomes Environmental issues Geographic databases and technology Geologic, atmospheric, and hydrospheric processes Global economic interdependence and human society Global power and influence Group and national identity Human response and adaptation to the environment	Impact of society on the environment Impact of the environment on society Influence of geographic features on historic events Interdependence of places and regions International diplomacy and relations Location of natural and human features and places Maps, globes, and atlases Mental maps, spatial relationships, and directional awareness Migration and settlement patterns Natural disasters and humanity Natural resources Perceptions of places and regions Places and regions over time Population density, distribution, and growth rates Rise of nation-states Science, technology, and society Settlement and migration patterns Spatial organization, dynamics, and interaction Structure of cities and their related regions Trade and trade routes Transportation and communication networks Transportation systems Types of regions Types of territorial units Urban growth and development

The "expanding communities" framework has a long history in U.S. education, having been introduced in 1934 by Paul Hanna, then revised and disseminated widely in the mid-1960s (Douglass, 1999). This model places the student's immediate view of the world at the center of instruction, so that as the child's perspective of his or her environment expands, so do the geographical and time boundaries of the content — from a study of immediate home and family to communities of the past and present, to state, nation, and so forth. The approach has no solid research evidence for support, as is frequently the case for curricular patterns in the social studies (National Council for the Social Studies, 1988). A recent survey indicates that among those states that described the structure of their elementary social studies standards, twice as many indicate an "expanding horizons" model as any other structure (Council of State Social Studies Supervisors, 2003). This model continues despite the fact that, as one researcher has noted (LaSpina, 1998), the present day world of browsers and search engines can quickly undercut its approach, which seems best suited to the linear structure and control afforded by a textbook. The inquisitive student can quickly move beyond the boundaries of

immediate family and neighborhood, spanning centuries and discovering new countries with a mouse click.

The use of a model that arises not from a study of the content itself, but as an external means to organize standards content, obscures any consensus among educators about the most effective way to organize ideas for instruction. Of the five states reviewed in this study, three used some variant of the expanding horizons model, which is likely a significant reason that so few topics could be sequenced. Other contributing factors in states' design of content standards were the tendency for state standards to place all geography content into one grade, especially at 5th grade and above. When all content is addressed within a single grade, no evidence is available as to whether there is a sequence of content. Finally, the combination of geography with history standards, while advantageous from the point of view of integrating history with other social studies disciplines, tends to make it unclear how or whether there is a preferable sequence of content in geography.

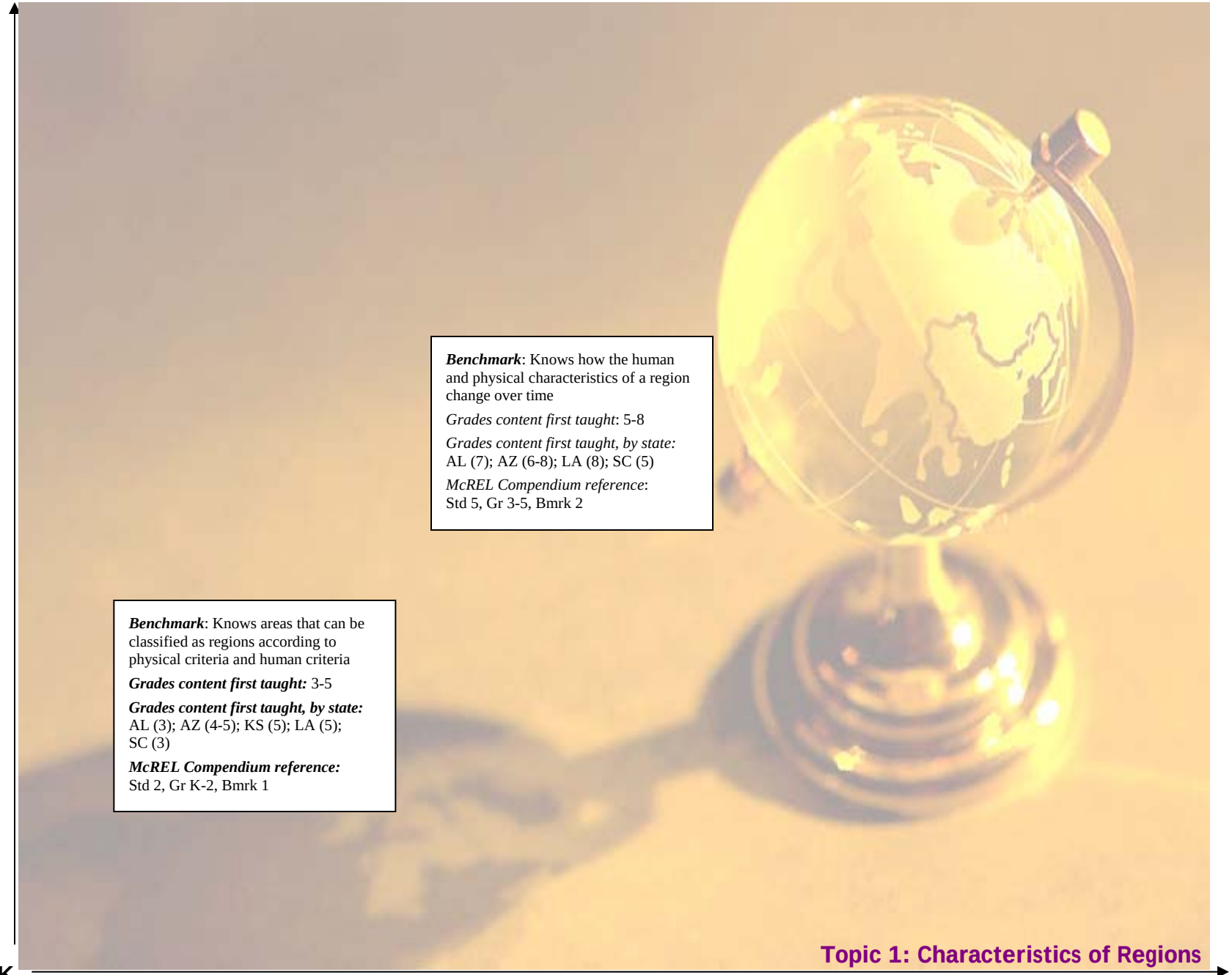
The National Geography Standards provide an example of how geography content can be organized conceptually in a way that prepares students for later learning. It is likely not accidental that the topics and ideas organized and sequenced in the pages that follow are in line with these standards. As more states reconsider their organization of content in geography, and do so at a finer level of analysis — grade-by-grade — it seems likely that the number of such sequences will increase.

SUMMARY

The product of this analysis is presented in seven topic sequences, each of which represents the articulation of a topic that was supported by evidence from the state standards documents. The topics in this report represent the sequencing of 20 benchmarks. The sequences identified align with those in the national standards. Many other such sequences might be available were states to use the National Geography Standards to identify what students should know and be able to do at each grade.

12

Content Sequence



Benchmark: Knows how the human and physical characteristics of a region change over time

Grades content first taught: 5-8

Grades content first taught, by state: AL (7); AZ (6-8); LA (8); SC (5)

McREL Compendium reference: Std 5, Gr 3-5, Bmrk 2

Benchmark: Knows areas that can be classified as regions according to physical criteria and human criteria

Grades content first taught: 3-5

Grades content first taught, by state: AL (3); AZ (4-5); KS (5); LA (5); SC (3)

McREL Compendium reference: Std 2, Gr K-2, Bmrk 1

Topic 1: Characteristics of Regions

K

12

Grades where content first taught

12

Content Sequence

Benchmark: Knows the basic components of culture

Grades content first taught: 1

Grades content first taught, by state: AL (1); LA (1); SC (1)

McREL Compendium reference: Std 10, Gr K-2, Bmrk 1

Benchmark: Knows the similarities and differences in the cultures of different regions

Grades content first taught: 2-8

Grades content first taught, by state: AL (3); AZ (6-8); LA (4); SC (2)

McREL Compendium reference: Std 10, Gr 3-5, Bmrk 1

Benchmark: Understands the significance of patterns of cultural diffusion

Grades content first taught: 6-12

Grades content first taught, by state: AZ (9-12); KS (7); LA (8); SC (6)

McREL Compendium reference: Std 10, Gr 6-8, Bmrk 3

Topic 2: Cultural Regions

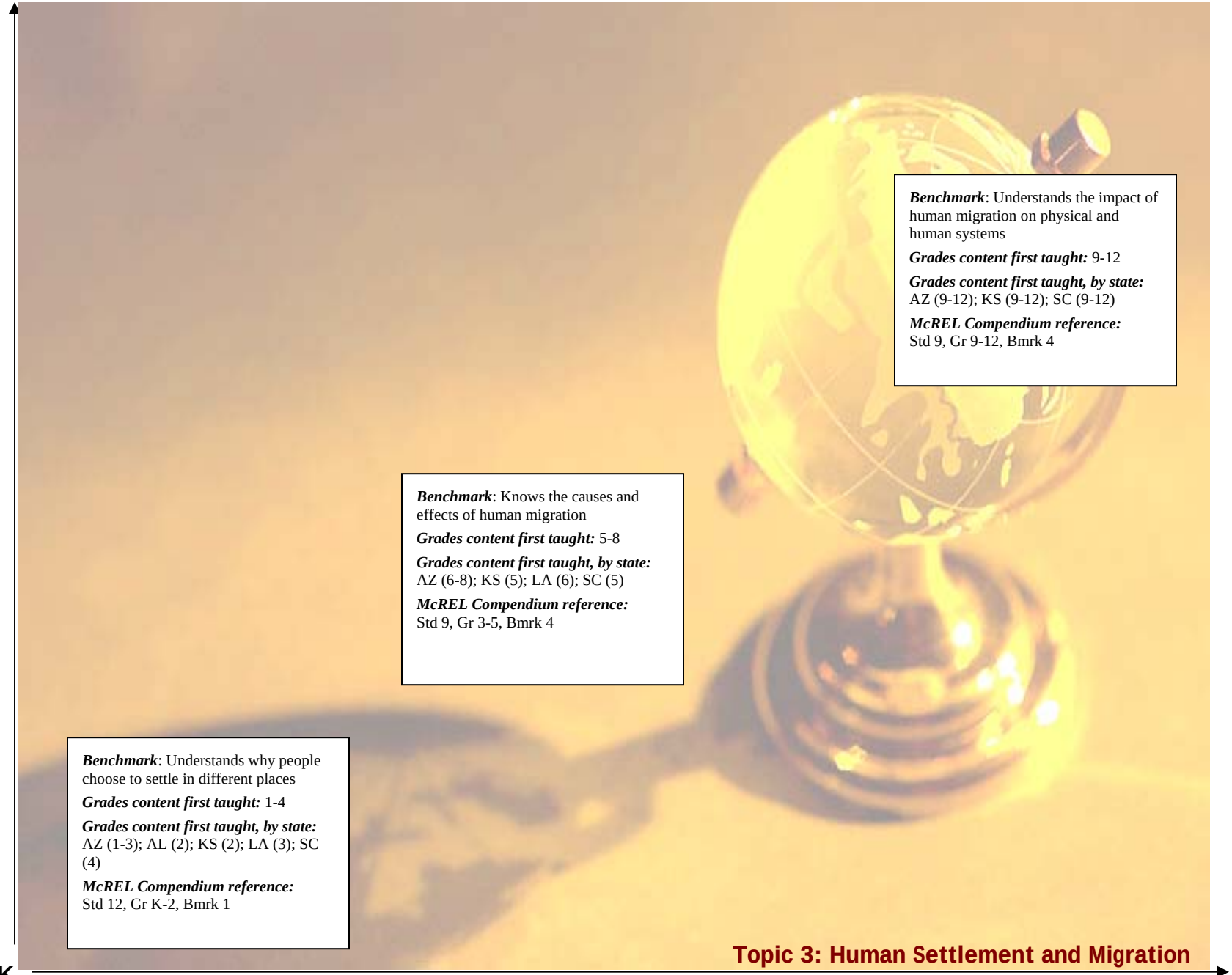
K

12

Grades where content first taught

12

Content Sequence



Benchmark: Understands the impact of human migration on physical and human systems

Grades content first taught: 9-12

Grades content first taught, by state: AZ (9-12); KS (9-12); SC (9-12)

McREL Compendium reference: Std 9, Gr 9-12, Bmrk 4

Benchmark: Knows the causes and effects of human migration

Grades content first taught: 5-8

Grades content first taught, by state: AZ (6-8); KS (5); LA (6); SC (5)

McREL Compendium reference: Std 9, Gr 3-5, Bmrk 4

Benchmark: Understands why people choose to settle in different places

Grades content first taught: 1-4

Grades content first taught, by state: AZ (1-3); AL (2); KS (2); LA (3); SC (4)

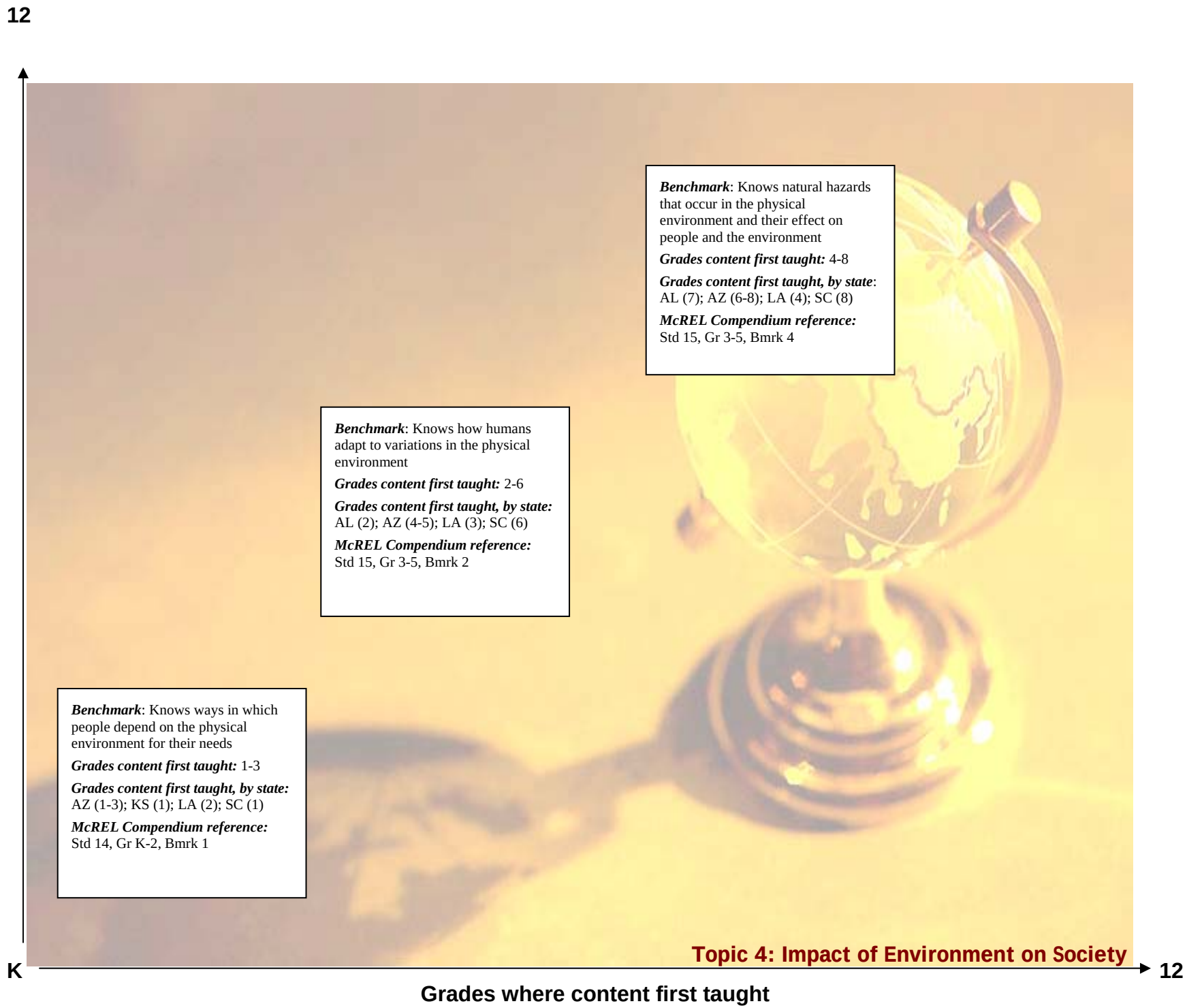
McREL Compendium reference: Std 12, Gr K-2, Bmrk 1

Topic 3: Human Settlement and Migration

K

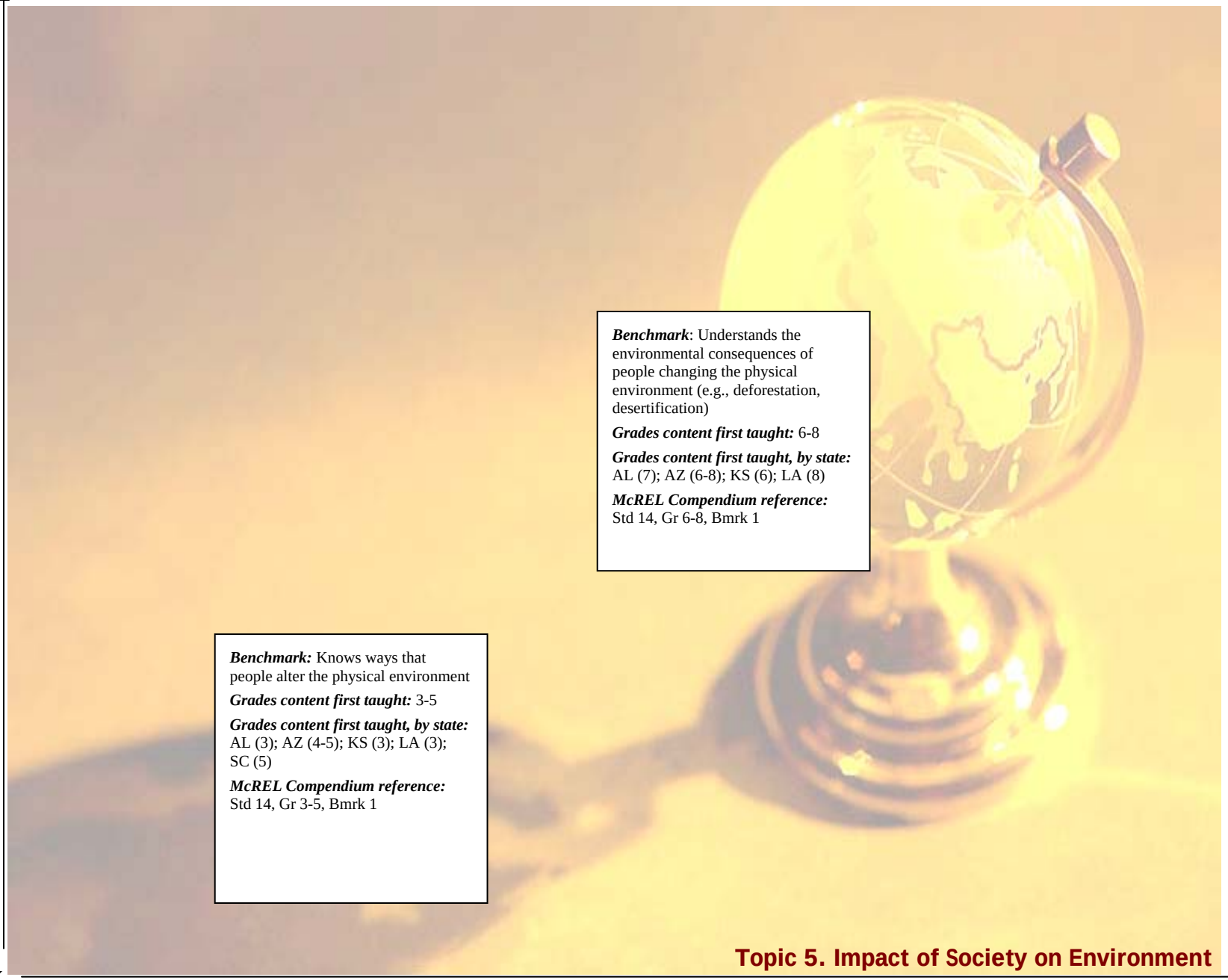
12

Grades where content first taught


12
Content Sequence
K
12
Grades where content first taught
Topic 4: Impact of Environment on Society
Benchmark: Knows natural hazards that occur in the physical environment and their effect on people and the environment
Grades content first taught: 4-8
Grades content first taught, by state: AL (7); AZ (6-8); LA (4); SC (8)
McREL Compendium reference: Std 15, Gr 3-5, Bmrk 4
Benchmark: Knows how humans adapt to variations in the physical environment
Grades content first taught: 2-6
Grades content first taught, by state: AL (2); AZ (4-5); LA (3); SC (6)
McREL Compendium reference: Std 15, Gr 3-5, Bmrk 2
Benchmark: Knows ways in which people depend on the physical environment for their needs
Grades content first taught: 1-3
Grades content first taught, by state: AZ (1-3); KS (1); LA (2); SC (1)
McREL Compendium reference: Std 14, Gr K-2, Bmrk 1

12

Content Sequence



Benchmark: Understands the environmental consequences of people changing the physical environment (e.g., deforestation, desertification)

Grades content first taught: 6-8

Grades content first taught, by state: AL (7); AZ (6-8); KS (6); LA (8)

McREL Compendium reference: Std 14, Gr 6-8, Bmrk 1

Benchmark: Knows ways that people alter the physical environment

Grades content first taught: 3-5

Grades content first taught, by state: AL (3); AZ (4-5); KS (3); LA (3); SC (5)

McREL Compendium reference: Std 14, Gr 3-5, Bmrk 1

Topic 5. Impact of Society on Environment

K

12

Grades where content first taught

12

Content Sequence

Benchmark: Knows the location and distribution of physical and human features on maps and globes

Grades content first taught: 6-12

Grades content first taught, by state: AL (7); AZ (9-12); KS (6)

McREL Compendium reference: Std 2, Gr 6-8, Bmrk 1

Benchmark: Uses cardinal directions to locate familiar places on maps

Grades content first taught: 1-3

Grades content first taught, by state: AZ (1-3); KS (2); LA (2); SC (1)

McREL Compendium reference: Std 1, Gr 3-5, Bmrk 1

Benchmark: Knows words that describe location and direction (e.g., up/down, near/far, left/right

Grades content first taught: K

Grades content first taught, by state: AL (K); AZ (K); KS (K); LA (K)

McREL Compendium reference: Std 5, Gr Pre-K, Bmrk 2 (math)

Topic 6: Maps, Globes and Atlases — Location and Direction

K

12

Grades where content first taught

HISTORY

IDENTIFICATION OF NATIONAL REPORTS

For the subject area of history, McREL analysts consulted two reports to select the state documents in this study. One report was from the American Federation of Teachers (AFT), *Making Standards Matter* (1999), which includes ratings of the state standards in terms of specificity and clarity. The second report, *The State of State Standards in History* (in the *State of State Standards 2000*, Finn & Pitrelli, Eds.), was written for the Fordham Foundation by David Warren Saxe.

SELECTION OF REFERENCE DOCUMENTS

Five state documents were selected for review for history. The top five state documents for history were selected by comparing information found in the two evaluation reports cited above. Specifically, the reviews of those states that received a "B" or above in the Fordham report on history were compared with those states rated in the AFT's *Making Standards Matter* report as having clear and specific standards in the social studies. The Fordham Foundation reviewed the geography and history content separately for each state; the AFT reviewed social studies as a whole for each state and gave ratings by school levels (primary, middle, and high school) rather than by subject area. The other subject areas commonly associated with the social studies — behavioral studies, civics, and economics — did not receive a separate review by either organization, and so could not be examined in this study. The analysis resulted in the selection of the following documents for the purpose of identifying sequenced content in K–12 history:

- *Alabama Course of Study: Social Studies* (2004), by the Alabama State Department of Education
- *Social Studies Standards* (2000), by the Arizona Department of Education
- *Kansas Curricular Standards for History-Government, Economics, Geography, and History* (2004, December), by the Kansas State Board of Education
- *History-Social Science Content Standards for California Public Schools: Kindergarten Through Grade Twelve* (1998), by the California State Board of Education
- *Standards of Learning For Virginia Public Schools* (2001, March), by the Board of Education, Commonwealth of Virginia

As noted in the section on geography, not since these ratings appeared in the mid-1990s has there been any comparable review of state standards documents by multiple organizations. Thus, in order to select standards documents for this report that are widely endorsed for their quality, McREL was limited to the most current editions of documents last reviewed in the mid- 1990s. However, we believe that these documents fairly represent the current state of content standards in history. This view is based on McREL's continued familiarity with state standards over the last 10 years as we have conducted our own studies or reviews for state and district clients. For this sequencing study, we determined that it was preferable to select standards documents that were highly rated by multiple organizations some time ago, than to select documents that had been highly rated more recently, but by a single organization.

SELECTION OF TOPICS

As described in detail in the introduction, the analytic process used to identify an instructional sequence required a comparison of state standards documents for any commonalities they share in the instructional sequence of a specific topic. A topic is a level of organization that is more specific than a standard, but more general than a benchmark. A topic names an idea that organizes a small collection of benchmarks or objectives. McREL's online standards database was a source of potential topics in history. The database, the online equivalent of *Content Knowledge: A Compendium of Standards and Benchmarks for K–12 Education* (3rd ed.) (Kendall & Marzano, 2000), provides a synthesis of the material present in nine significant national documents on history content. In McREL's *Compendium*, several topics are commonly found within a standard, and each topic organizes two or more benchmarks (for a description of the process of topic development and samples in mathematics and language arts, see Kendall, 2000). The topics selected for this study are presented in Exhibit 2.

Exhibit 2 does not include more than 250 additional topics listed in the *Compendium* that organize content in US and world history. These topics, which for the most part name eras or significant time periods, are not included because a preliminary analysis demonstrated that there would be insufficient evidence to support organizing the content they encompassed into instructional sequences. Based on our experience in other studies of content sequencing, we believe that the lack of instructional sequence can be explained through an understanding the type of knowledge commonly addressed in history, as well as the traditional organization of history content in schools. More specifically, we believe the character of knowledge in history creates a special problem for those who design a structure for the curriculum, a design that is often reflected in state standards. Before we examine the issue, it is useful to discuss first the nature of knowledge in history.

History and Types of Knowledge

Distinctions about knowledge have proved useful in theories of learning and cognition (Anderson, 1993; Keil, 1989; Damasio, 1994). One type of knowledge relates only to information, as distinct from skill. This type of knowledge is commonly called *declarative knowledge.* One can think of such knowledge as comprising the *information* important to a given content area. Information includes such things as facts, events, chronological and cause/effect sequences, and episodes, as well as principles and generalizations. These are briefly described in Exhibit 3. History comprises facts, events, chronological sequences, cause/effect sequences (assuming they are accepted as fact), and episodes. In the strictest sense, that is all that history comprises. Declarative knowledge of this type does not "add up" to later understanding of a larger concept or generalization as we found to be common in our study of other subject areas. For example, in science, the fact that the sun provides heat to the earth is a fact that is also essential for later understanding changing weather, the water cycle, and climate patterns; understanding the principles of weather change depend upon the fact that the sun supplies heat to the earth. The facts of history might be used to build a generalization about history, but the facts serve only as examples, and are not essential

Exhibit 2. Summary of Historical Understanding and K–4 History topics*

HISTORICAL UNDERSTANDING AND K–4 HISTORY
Calendar time
Causes and effects in history
Chronological thinking
Conducting historical research
Evaluating historical sources
Historical analysis and interpretations
Historical change and continuity
Historical periods
Historical sources
Historical time lines
Historical viewpoints and perspectives
History of the local community
Influence of ideas on society
Role of individuals in history
Art in culture/society
Celebrations, traditions, and customs
Changes in communication over time
Changes in transportation over time
Comparative analysis of culture and societies
Cultural contributions from various regions of the United States
Cultural diffusion, adaptation, and interaction
Daily life in the past
Diversity of cultures
Economic development and growth
Expansion, exploration, and conquest
Explorers and settlers of the state and region
Family and gender roles
Family life past and present
Farming and agriculture
Formation of United States government
Historic documents, treaties, and agreements
Human and civil rights
Hunter-gatherer, agrarian, and pastoral communities
Immigration and the immigrant experience
Immigration to the state and region
Impact of society on the environment
Impact of the environment on society
Indigenous peoples of the state and region
Interaction among diverse groups in state history
Literary and artistic developments
Migration and settlement patterns
Migration of different groups into and within the United States
North American communities of the past
Population density, distribution, and growth rates
Race and ethnicity
Religion, belief systems, and values
Role of historic figures in American democracy
Roles and experiences of diverse groups
Roles of ordinary people in American democracy
Science, technology, and society
Significant events for American democracy
Significant human migrations of the world
Significant ideas and events in the state's history
Significant scientists and inventors and their technological innovations
Symbols and historic landmarks
Symbols and landmarks
Transmission of family heritage and culture
Transportation and communication networks
Urban growth and development
Values and principles of American democracy

*an additional 250 topics in world and US history from the *Compendium* are not included, but are discussed in this section

for understanding in the way that the sun is essential to understanding principles of weather. For example, the demise of formal letter-writing with the increased use of e-mail in the early 21st century is an example of how technology can impact both the means and style of communication. But any number of communication revolutions in the past — the use of fire to send signals across mountaintops, the invention of the telegraph, and later, the telephone are equally strong examples. As further evidence that the "stuff" of history cannot be used to organize content through generalizations and principles, consider the design of the history standards developed by the National Council for History in the Schools (NCHS). The highest level of organization of US and world history standards from NCHS is the chronological sequence. Content is organized by era at grades 5–6, 7–8, and 9–12. Further, the standards are designed so

that students studying an historical era at one grade band are not expected to do so again at any other grade band. Other subject areas require that students master benchmarks at each grade or grade band in order to master the overarching idea expressed in the standard. In history, by contrast, each set of benchmarks (at grades 5–6, 7–8, and 9–12) is designed to outline the complete expectation for meeting the standard. In other words, in most schooling now, material for one historical era is unlikely to be repeated at a different level of schooling.

This approach to curriculum organization falls under what Brophy (1992) calls the "gradual differentiation approach." For example, the students at all levels learn the significant events and ideas related to the cause of the Civil War, but students in later grades will learn greater detail about these

Exhibit 3. Types of Declarative Knowledge

Fact. A fact is a statement that is commonly accepted as true. Facts can be synthetic, that is, stating something true about the world; or analytic, that is, stating something that is true by definition. That George Washington was the first president of the United States is a fact about the world. An example of an analytic fact is that 32 is greater than 31, which is true by definition within the set of numbers.

Event. An event is a fact that describes something that has occurred in the world. The inauguration of George Washington election as president in 1799 is an historical event.

Chronological Sequence. A chronological sequence encompasses related events that occur within a specified period of time. For example, the events occurring from the time of the storming of the Bastille to the death of Robespierre form a chronological sequence.

Cause/Effect Sequence. A cause/effect sequence identifies an event as the cause of something and the event that happened, the result. For example, stock-market speculation is often cited as a contributing cause of the Great Depression; conversely, the Great Depression is described as the effect of stock-market speculation.

Episode. An episode is one or more events that occur within a larger frame or connected series, such as a chronological or cause/effect sequence. Episodes are often dramatic in nature, and usually suggest greater detail about the nature of an event, such as the parties involved, the setting, possible causes, and the like.

Generalization. A generalization serves to cluster specific information or to make new information from known information. The formation of a category is an example of generalization. The statement that great art flourishes in response to repressive regimes is a generalization, an observation that might not always be true in every culture.

Principle. A principle is a type of generalization that provides the basis for further reasoning or a guide for further action. A principle useful in geology, as in history, is that the present provides a key to understanding the past.

events and are expected to understand the events in a broader context. This type of curriculum organization, then, grows directly out of the type of knowledge found in history, and chronological sequence is the highest level of declarative knowledge used to organize it.

Two other approaches to the organization of the social studies curriculum Brophy identifies as the spiral curriculum approach and the expanding communities framework. The spiral curriculum approach uses overarching concepts to organize the curriculum so that specific content can be threaded through successive grade levels (Taba, 1967). The approach nearest to this is provided in a model of standards for the curriculum by the National Council for the Social Studies (NCSS, 1994). The NCSS model does not build topics or concepts directly from facts, events, and episodes but, following the Taba model, uses such information as supporting examples for broader concepts. The difficulty with this approach for organizing history content is that historical events are not important solely because they are useful as examples in support of generalizations, but because they are an important part of our past, and are valuable for learning in their own right. Thus, if the curriculum is designed in such a way that historical information is selected for its illustrative value, much important history can be missed. In the course of McREL's work in the review of social studies standards for state and district agencies, we often find that those standards structures that use the NCSS model tend to have poorly identified history content, unless there is an attempt to address the essentials of history outside the NCSS structure.

A third common approach for organizing the social studies curriculum is the expanding communities model, sometimes called the expanding horizons model, and is in fairly common use among the states (see discussion, p.10–11). This model is reflected in the standards organization of two of the five documents analyzed for history in this study. It superimposes the perceived view the child has of the world on the standards structure, rather than attempting to organizing concepts according to the developmental or logical structure suggested by the content itself as in the spiral curriculum approach. Thus, the student learns about the structure of the family prior to the community not because there is any logical or developmental case made for it, but because the family forms the child's immediate environment. This approach allows for a more concerted treatment of history standards than the NCSS model, as for example, when the student's view is determined, by advancing age, to have reached the point for understanding history at the level of the nation, the facts, events, and episodes at the national level might fill the curriculum. Yet in the early years this approach has the effect of obscuring some content sequences because the structure is dependent upon an externally imposed model, rather than building from important concepts of the discipline.

FINDINGS

This study has yielded few sequences in history in part because the gradual differentiation approach does not work from overarching concepts, but from the gradual increase in depth and breadth of the same material — eras of history — at successive grade levels. The content that could be sequenced falls into what might be termed instead of the "stuff" of history, "doing" history. The study of history itself often requires a different type of knowledge than declarative knowledge, namely, *procedural knowledge.* Procedural knowledge, the skills and processes of a discipline, can be

thought of as "the how" of an academic understanding as opposed to the "what" of declarative knowledge. A process may or may not be performed in a linear fashion. For example, performing long division is a process: one step is performed, then another, and so on. Reading a map also involves certain steps, but these steps, unlike those in long division, do not have to be performed in any set order. It is equally effective to read the name of the map first, then look at the legend, or to perform these steps in reverse order. Some skills, however, like algorithms, require adherence to a particular sequence. One might think of procedural knowledge as the skills and processes important to a given content area. These are briefly described in Exhibit 4.

One topic on chronological thinking was supported among the documents, and one for historical understanding. Both could generally be considered as describing the skills of the discipline. Both sequences reflect the organization of content also found in the national standards.

SUMMARY

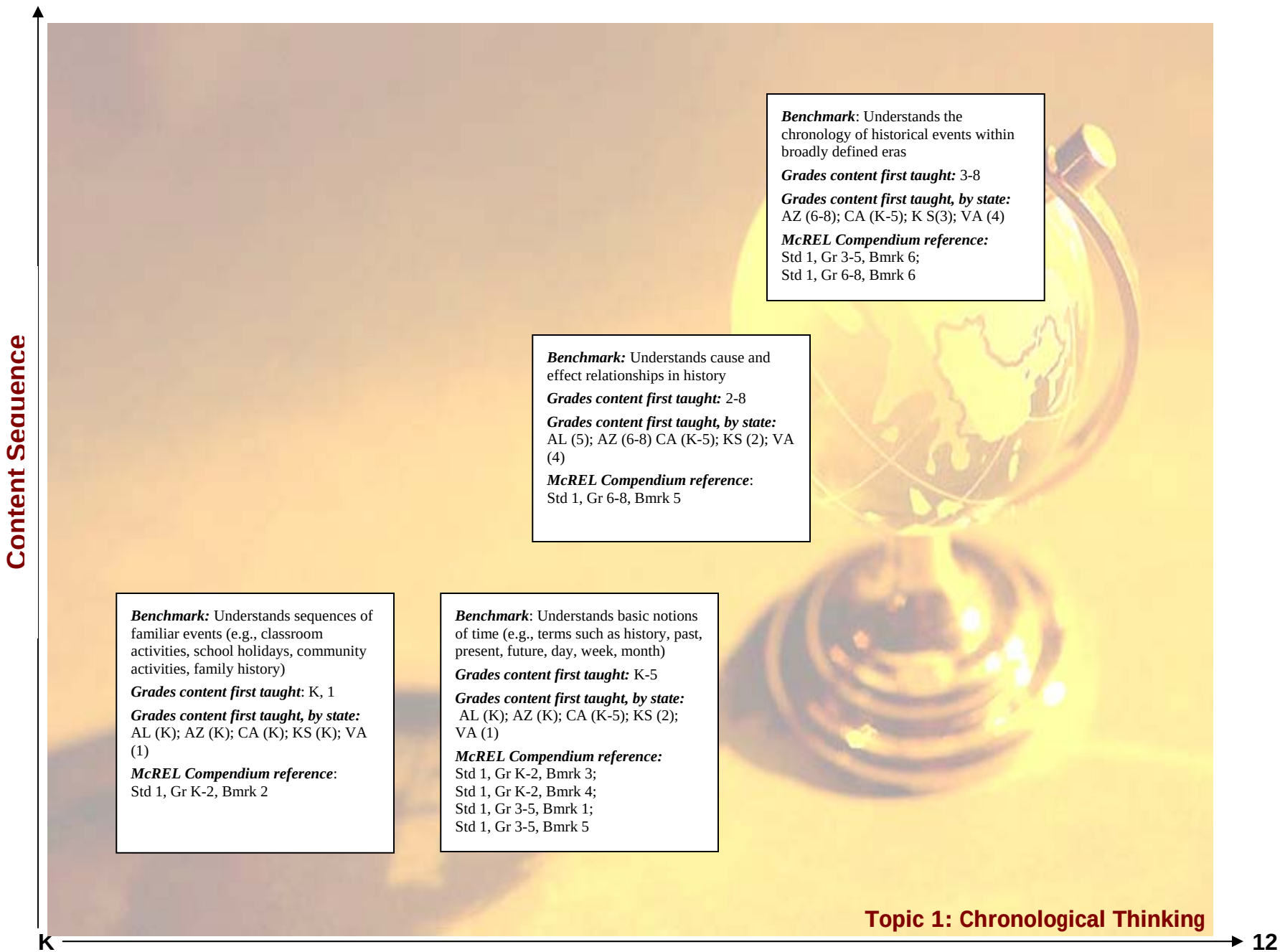
In summary, the nature of knowledge in history creates certain difficulties in identifying instructional sequences. Although one approach to curriculum design — the gradual differentiation approach — appears most amenable to the characteristics of history, there is no information as to how such knowledge can be systematically defined grade-by-grade. Other attempts to adopt history into external curriculum models — the expanding horizons model and the NCSS spiraling curriculum model, either tend to obscure what content might be sequenced, or, more commonly, address history as a source of examples to illuminate generalizations in the social studies, rather than specific and important content that all students should know.

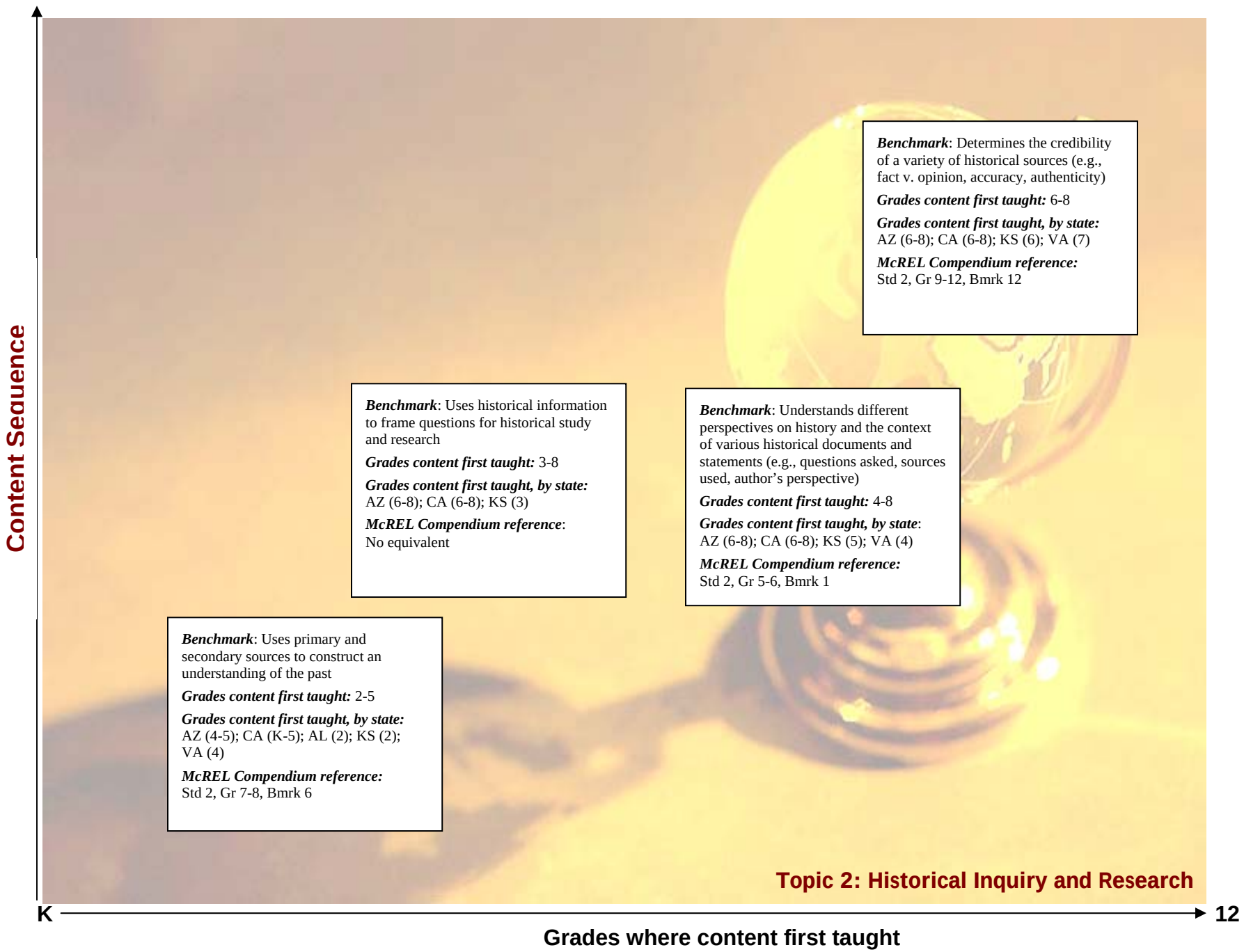
Exhibit 4. Types of Procedural Knowledge

Algorithm An algorithm is a step-by-step procedure, usually without variation, that is used to solve a problem or to obtain a specific result. Two-column addition is an example of an algorithm.

Tactic A tactic is a limited plan of action adapted for a set of circumstances. An example of a tactic is choosing two events from several secondary sources to determine what they share in common.

Process is a set of interrelated activities designed to accomplish a purpose. For example, writing is a process that requires multiple skills, including spelling, punctuation, and grammar skills.


12
Content Sequence
Benchmark: Understands the chronology of historical events within broadly defined eras
Grades content first taught: 3-8
Grades content first taught, by state: AZ (6-8); CA (K-5); K S(3); VA (4)
McREL Compendium reference: Std 1, Gr 3-5, Bmrk 6; Std 1, Gr 6-8, Bmrk 6
Benchmark: Understands cause and effect relationships in history
Grades content first taught: 2-8
Grades content first taught, by state: AL (5); AZ (6-8) CA (K-5); KS (2); VA (4)
McREL Compendium reference: Std 1, Gr 6-8, Bmrk 5
Benchmark: Understands sequences of familiar events (e.g., classroom activities, school holidays, community activities, family history)
Grades content first taught: K, 1
Grades content first taught, by state: AL (K); AZ (K); CA (K); KS (K); VA (1)
McREL Compendium reference: Std 1, Gr K-2, Bmrk 2
Benchmark: Understands basic notions of time (e.g., terms such as history, past, present, future, day, week, month)
Grades content first taught: K-5
Grades content first taught, by state: AL (K); AZ (K); CA (K-5); KS (2); VA (1)
McREL Compendium reference: Std 1, Gr K-2, Bmrk 3; Std 1, Gr K-2, Bmrk 4; Std 1, Gr 3-5, Bmrk 1; Std 1, Gr 3-5, Bmrk 5
Topic 1: Chronological Thinking
K
12
Grades where content first taught


12
Content Sequence
Benchmark: Determines the credibility of a variety of historical sources (e.g., fact v. opinion, accuracy, authenticity)
Grades content first taught: 6-8
Grades content first taught, by state: AZ (6-8); CA (6-8); KS (6); VA (7)
McREL Compendium reference: Std 2, Gr 9-12, Bmrk 12
Benchmark: Uses historical information to frame questions for historical study and research
Grades content first taught: 3-8
Grades content first taught, by state: AZ (6-8); CA (6-8); KS (3)
McREL Compendium reference: No equivalent
Benchmark: Understands different perspectives on history and the context of various historical documents and statements (e.g., questions asked, sources used, author's perspective)
Grades content first taught: 4-8
Grades content first taught, by state: AZ (6-8); CA (6-8); KS (5); VA (4)
McREL Compendium reference: Std 2, Gr 5-6, Bmrk 1
Benchmark: Uses primary and secondary sources to construct an understanding of the past
Grades content first taught: 2-5
Grades content first taught, by state: AZ (4-5); CA (K-5); AL (2); KS (2); VA (4)
McREL Compendium reference: Std 2, Gr 7-8, Bmrk 6
Topic 2: Historical Inquiry and Research
K
12
Grades where content first taught

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