

An American Examination System

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The Problem

Standards-based Accountability

became

Test-based Accountability

became

Test Preparation

which lowers the quality of education practice.

But we need testing.

Accountability and equity demand it.

So it is time to develop an “educative”
assessment system

-- one that is designed so that preparing
students for exams is the right thing to do

6 Principles of an American Examination System

1. Models the kinds of learning that are valued so that preparing students for assessment means high cognitive demand instruction;
2. Situates exams within the stream of instruction - supporting teaching rather than distracting from it;
3. Ensures content validity and instructional validity
4. Maintains reliability and validity for student, educator, and school accountability;

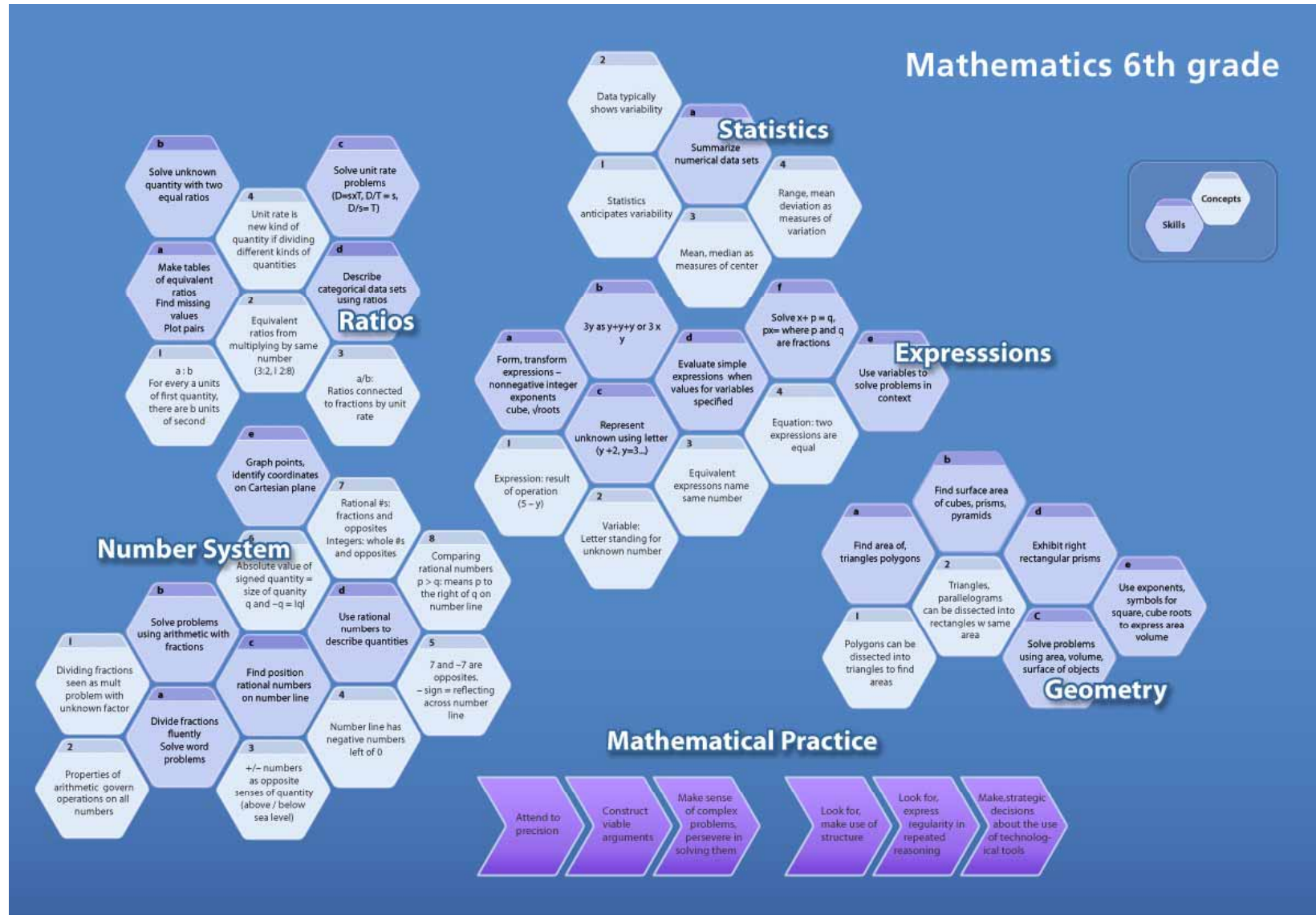
6 Principles of an American Examination System

5. includes diagnostic tools to discern individual student needs;
6. leverages advanced data collection and computational resources to “mass personalize” formative assessments, improving their precision and usefulness.

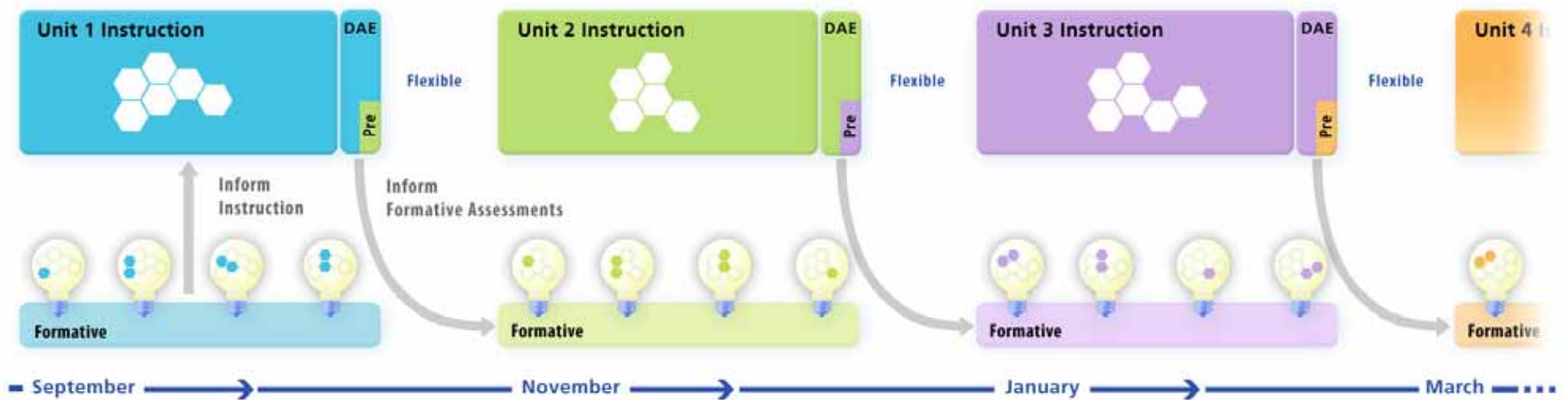
The Common Core Standards
Define **Learning Sequences**.

These sequences are the fundamental
organizing principle of our assessment system.

The Honeycomb: A Representation of How Students Progress Through Standards



An American Examination System



Validity of Distributed Examinations

- Alignment of DAEs with model instructional units, judged by panels of content experts ensures **content validity**
- *In vivo* experiments establish **instructional validity** of the exams
- Equivalent forms of each exam enable measures of **student growth** along with **teacher** and **school effectiveness**.

Reliability of Distributed Examinations

- Exams include short constructed items, multiple choice items and extended responses
- Improved reliability because DAEs collect **more data** than current end-of-year tests.
- **Bayesian model** uses earlier assessment data to help produce more precise proficiency estimates for each DAE.
- Bayesian approach could also enable **shortening many of the assessments** with no loss in measurement precision.

Exams Distributed Through the School Year

- Allow focus on high-cognitive-demand performances built on strong knowledge
- Detect and reward high quality teaching
- Reduce the testing load
- Available to the instructional process (e.g. what to re-teach, how to group)

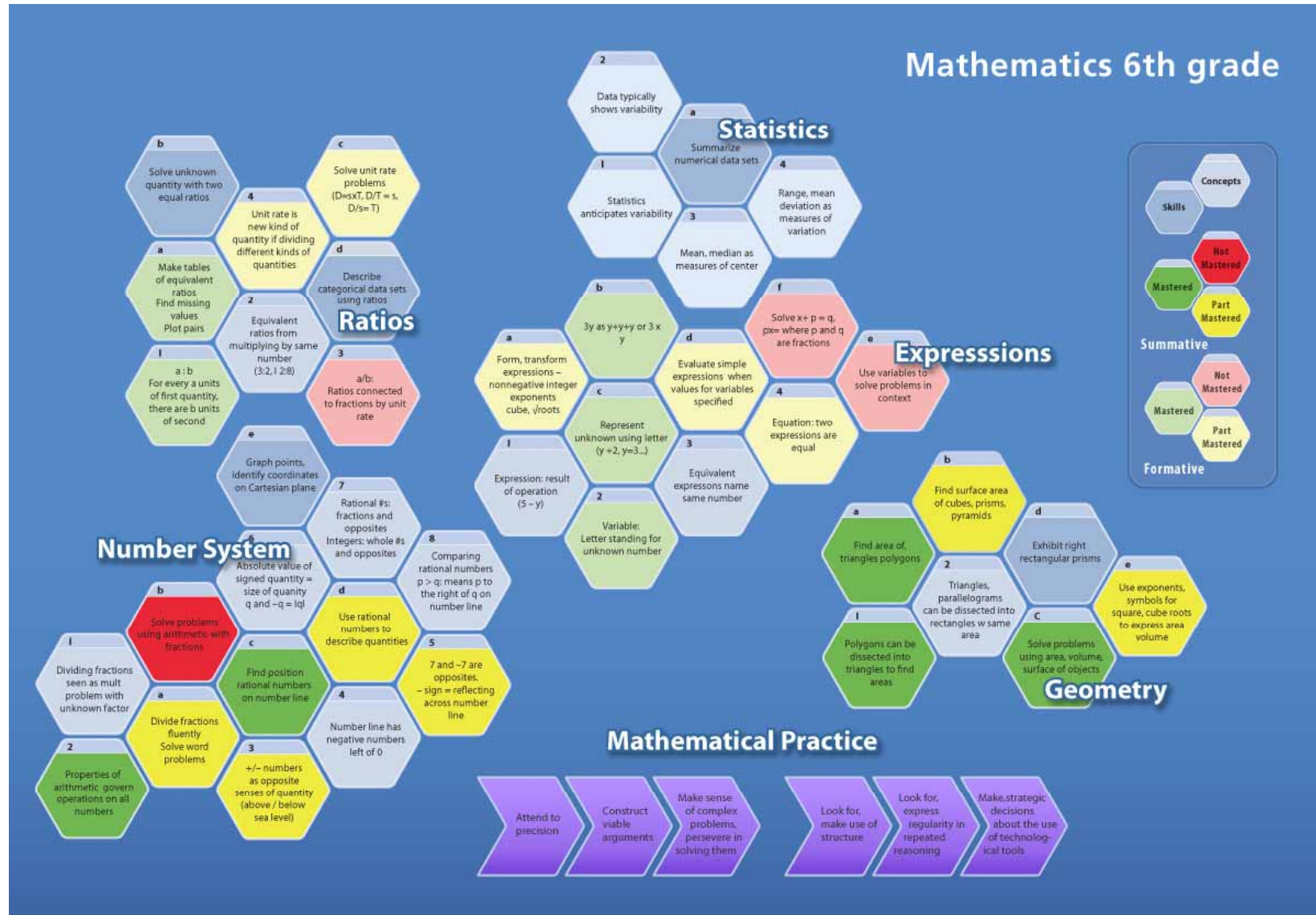
(You have an ELA example + A math example)

Educative Formative Assessment



- Aligned with the learning sequences derived from the Common Core.
- Model approaches to how to teach, and would provide teachers structured opportunities to gain experience using those teaching methods.
- Fits in teacher's instructional routine. Data-entry/record-keeping burdens minimal, and tools make the data useful.

Formative and summative inform the same map



Platform demonstration

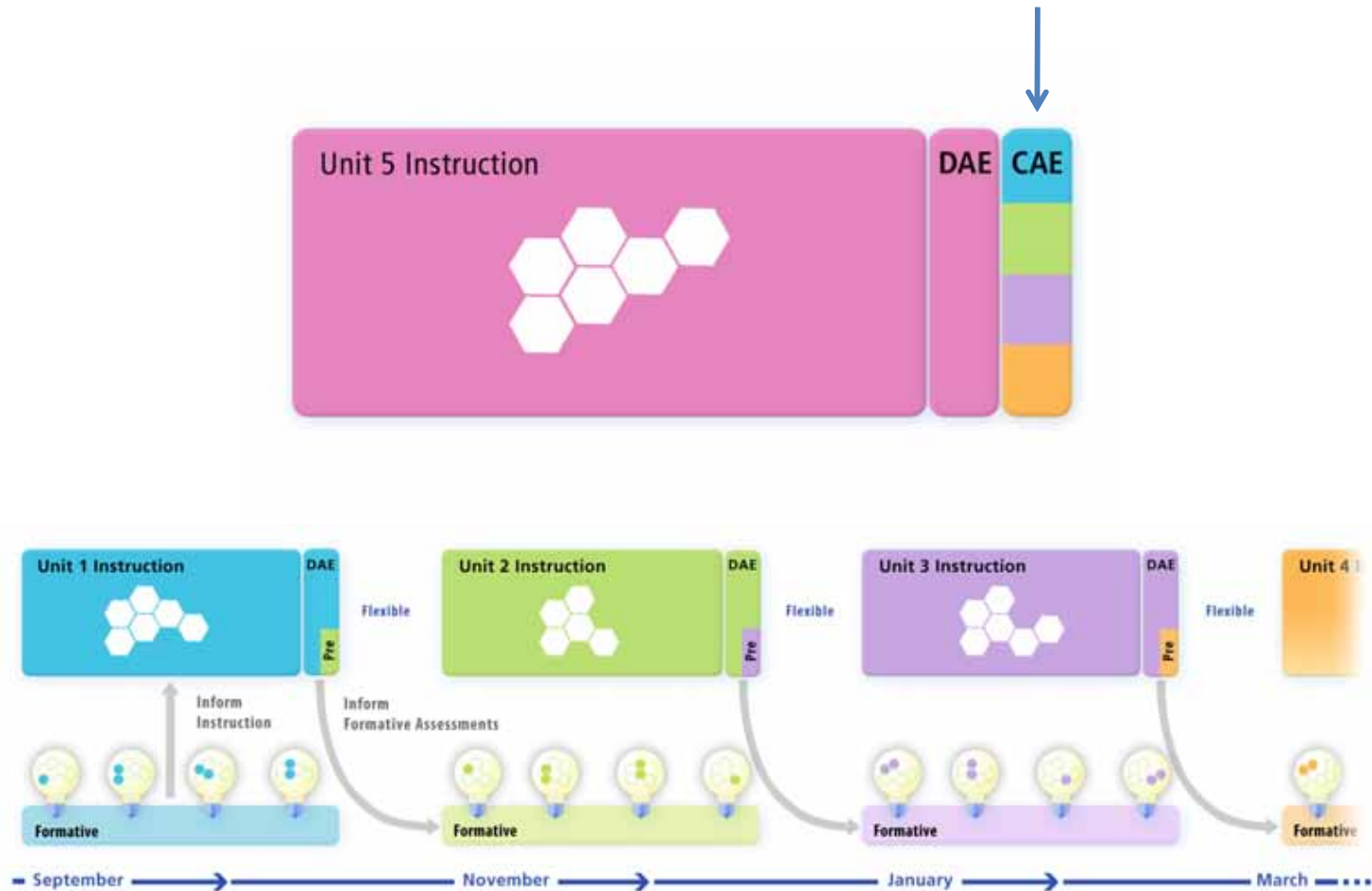
Cost

At scale, the platform and the summative aspects of this should approach 10\$ per student for each of math and ELA.

Variability will be driven by the amount of human scoring.

We believe smart workflow technology can minimize the amount of human scoring time required (as well as make the scoring experience more worthwhile to the participants).

A cumulative accountability exam?



(Not technically necessary, but neither is it technically necessary for the census to knock on every door.)