

Computer Science, Library Media/Information Literacy, and Technology Integration

Content Standards Revision February 24, 2020





#### PUBLIC MEETING

All comments received become part of the official public record of the Negotiated Rulemaking Committee proceedings in accordance with MCA 2-3-212.

This meeting is being recorded and streamed via MPAN.

Please use the microphone whenever you are speaking.

Remote participants are joining this meeting via conference call.



## CALL TO ORDER



## MEETING AGENDA

#### Call to Order

- Housekeeping
- Review Process and Guidelines

#### Proposed Rule Changes

Complete Library Media/Information Literacy review

Lunch

Proposed Rule Changes

• Library Media / Information Literacy (continued)

**Economic Impact Report and Data** 

Negotiated Rulemaking and MAPA Timelines

**Public Comment** 

Adjourn



#### HOUSEKEEPING

Restrooms and Breaks

Connectivity Check/ Device Setup

Committee Agenda Packet

Lunch break at 12 p.m.

Work Session concludes at 4 p.m.



#### ROLES AND RESPONSIBILITIES

#### **Committee Members**

- review drafts prepared by the revision team to provide feedback and a recommendation to the Superintendent on the draft
- assist in determining the economic impact of the draft

#### OPI and BPE Staff

support the work of the committee



#### PROCESS

#### Where are WE?

#### Montana Constitution

Montana Code Annotated (Legislature)



Administrative Rules of Montana (OPI ■ NR Committee ■ OPI ■ BPE)

Policy (School Trustees)

Procedure (School Administrator)





# BACKGROUND AND CONTEXT FOR RULE CHANGE

The Board of Public Education sets forth the following guidelines for content standards revision:

- Standards will define what all students should know and be able to do;
- Standards will be challenging and rigorous;
- Standards will be clear, understandable, and free of jargon;
- Standards will be measurable;
- Standards will address diversity, specifically fulfilling the commitment to implementing Indian Education for All;
- Standards will be consistent with the grade level and grade band structures in ARM Chapter 53; and
- Content standards will be consistent with the program delivery standards described in ARM Chapter 55.



# BACKGROUND AND CONTEXT FOR RULE CHANGES TO LIBRARY MEDIA

Current Library Media/Information Literacy content standards were adopted in 2008

• Program delivery standards (Ch 55) were not updated in 2008

Organized by grade level for K-5 and by grade band for 6-8 and 9-12

- Grade level standards for K-5 clarify learning expectations for elementary teachers who teach in all content areas
- Grade band standards for 6-8 and 9-12 clarify expectations and allow for flexibility of program delivery

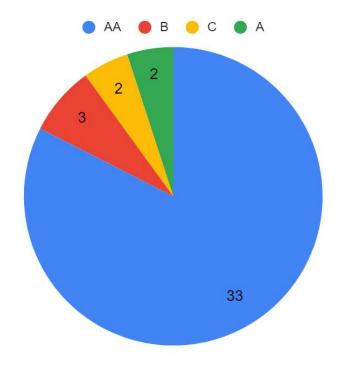
Integration of Indian Education for All

Emphasis on the skills students need to be information literate in any information or problem solving environment



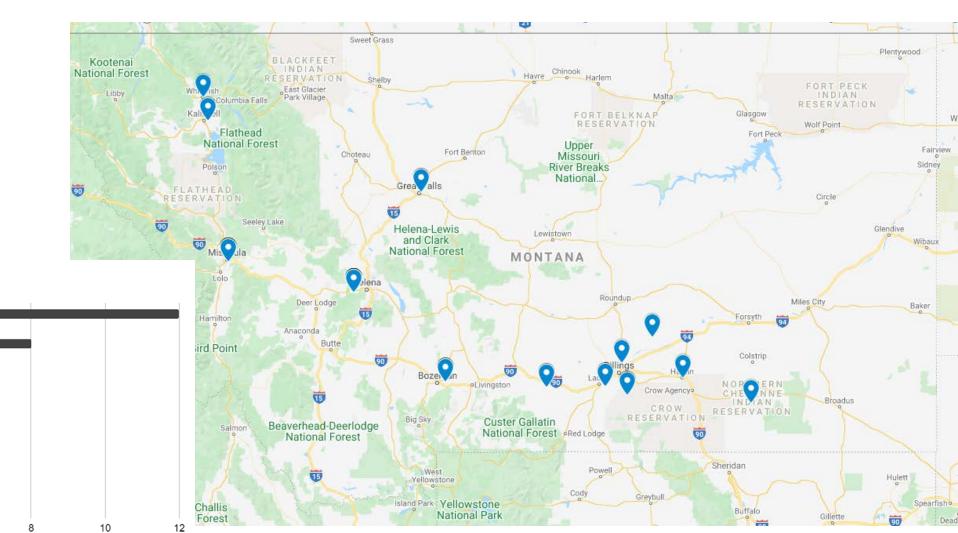
# Comment Summary Library Media/Information Literacy (n=40)

School Size



- 2 additional comments received on 2/21/2020
- comments are from school librarians







Count of ZIP Code

Count of ZIP Code

# Comment Summary Library Media/Information Literacy (n=40)

Summary of "Does Not Support" Comments (n=38)

- Adopt AASL standards with IEFA additions
- Add a standard that emphasizes reading for pleasure and personal interest

Summary of "Supports" Comments (n=2)

- Need more concise standards
- Need more flexible standards

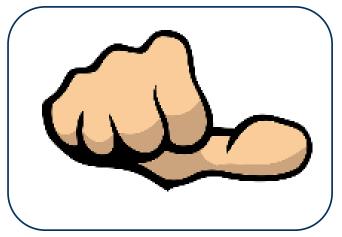


No comments were received that specifically addressed proposed changes to ARM 10.55.1801 Library Media Program Delivery Standards

## PROPOSED RULE CHANGES



A thumb held up indicates that I understand and am in agreement with the proposal.



A thumb held sideways indicates that I do not understand the proposal.



A thumb held down indicates that I understand and do not agree with the proposal.





## DRAFT PROPOSALS

Content Standards ARM Chapter 53 and 54

Program Delivery Standards ARM Chapter 55



#### **DIGGING IN**

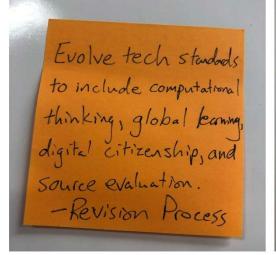
**Review and Consensus Process** 

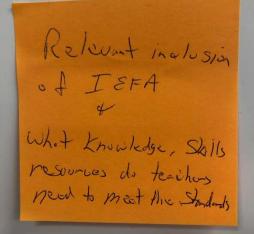
Library Media/Information Literacy



Computer Science is not an "add" on them to our current courses but integrated in away that all teaches can feel empowered to implement and see the important.

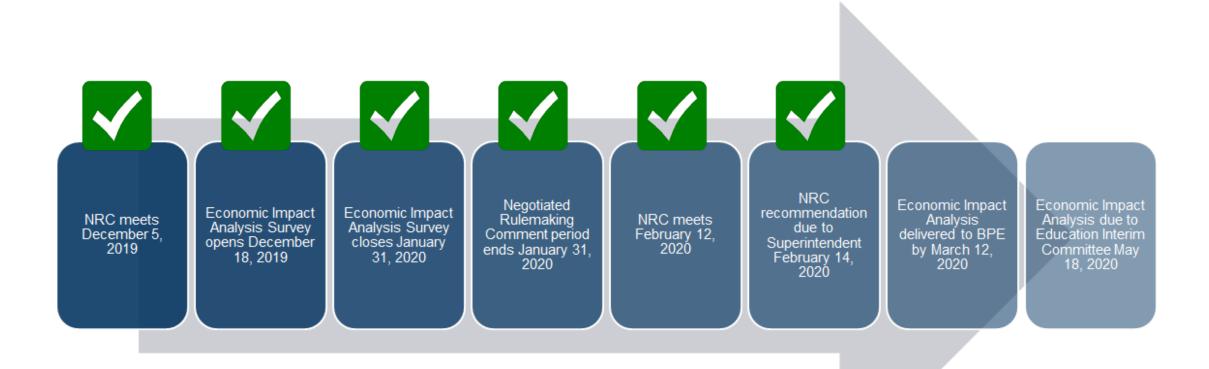
Does not need to be entry with mathy science. can be more!







#### COMPUTER SCIENCE NRC REVISED TIMELINE





#### **ECONOMIC IMPACT**

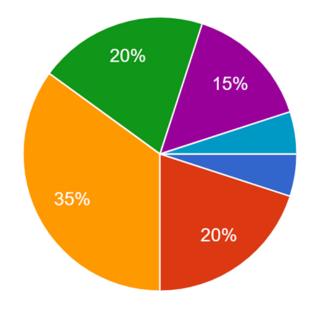
#### 2-4-405. Economic impact statement.

- (2) Except to the extent that the request expressly waives any one or more of the following, the requested statement must include and the statement prepared by the committee may include:
- (a) a description of the classes of persons who will be affected by the proposed rule, including classes that will bear the costs of the proposed rule and classes that will benefit from the proposed rule;
- (b) a description of the probable economic impact of the proposed rule upon affected classes of persons, including but not limited to providers of services under contracts with the state and affected small businesses, and quantifying, to the extent practicable, that impact;
- (c) the probable costs to the agency and to any other agency of the implementation and enforcement of the proposed rule and any anticipated effect on state revenue;
  - (d) an analysis comparing the costs and benefits of the proposed rule to the costs and benefits of inaction;
  - (e) an analysis that determines whether there are less costly or less intrusive methods for achieving the purpose of the proposed rule;
- (f) an analysis of any alternative methods for achieving the purpose of the proposed rule that were seriously considered by the agency and the reasons why they were rejected in favor of the proposed rule;
  - (g) a determination as to whether the proposed rule represents an efficient allocation of public and private resources; and
- (h) a quantification or description of the data upon which subsections (2)(a) through (2)(g) are based and an explanation of how the data was gathered.



# ECONOMIC IMPACT SURVEY Computer Science

What school size do you represent? 20 responses

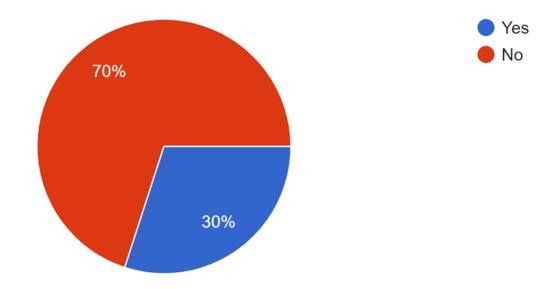


- Small School (fewer than 126 students)
- Class C
- Class B
- Class A
- Class AA
- Multiple districts represented (approximately 12,200 students)



Do you anticipate that your district will be able to implement the proposed standards with existing resources?

20 responses

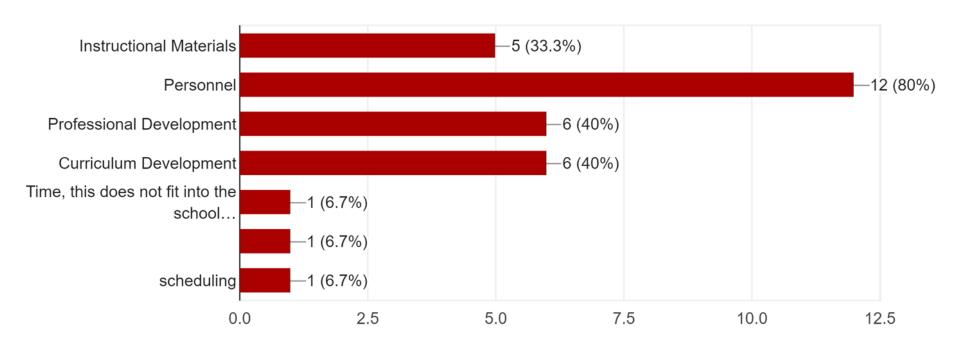






If no, what are the two most significant challenges to implementation?

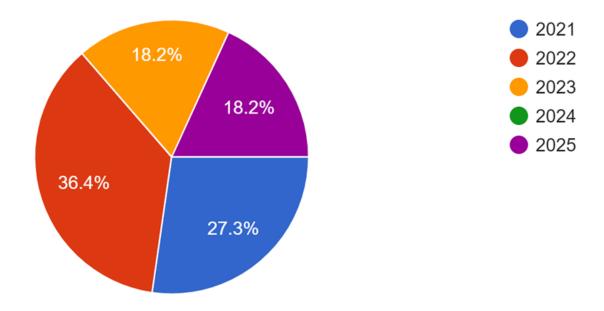
15 responses





What year would your district implement these standards?

11 responses

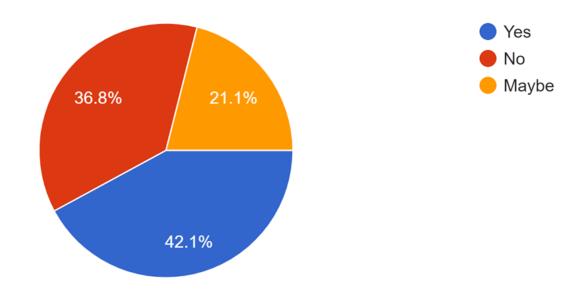






Will your district have difficulty finding instructional materials to implement the proposed standards?

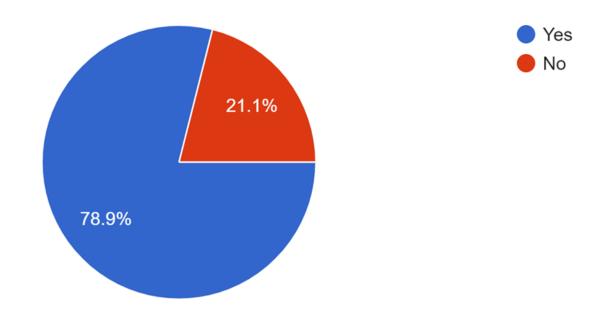
19 responses





Will your district have a shortage of teachers endorsed to teach computer science?

19 responses





#### What increase in total dollars would be required to cover the cost associated with **Instructional Materials?** (best estimate)

Answer Range: \$1,200- \$1,000,000

"\$100 per grade K6 and potentially much more than that in a junior high or high school class."

"About \$25K for equipment and supplies to start a Business Ed. program."

"\$800k to 1 million. We don't have difficulty in finding the materials, we need funding to support the purchase of updated and ongoing consumables for CTE"

## What increase in total dollars would be required to cover the cost associated with professional development?

Answer Range: \$500 to \$100,000\*

\*\$100,000. this includes paying the teacher for their time to attend the training, any certifications associated with the training and CTE field, travel, lodging, etc.

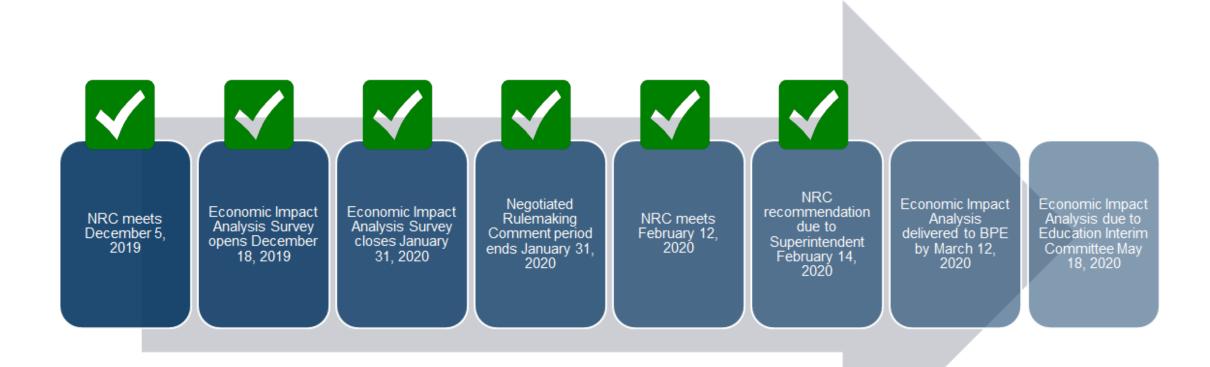
### What increase in total dollars would be required to cover the cost associated with curriculum development?

Range: \$400- \$100,000

\*That would depend on the interest of the teacher and willingness to learn new areas of application.

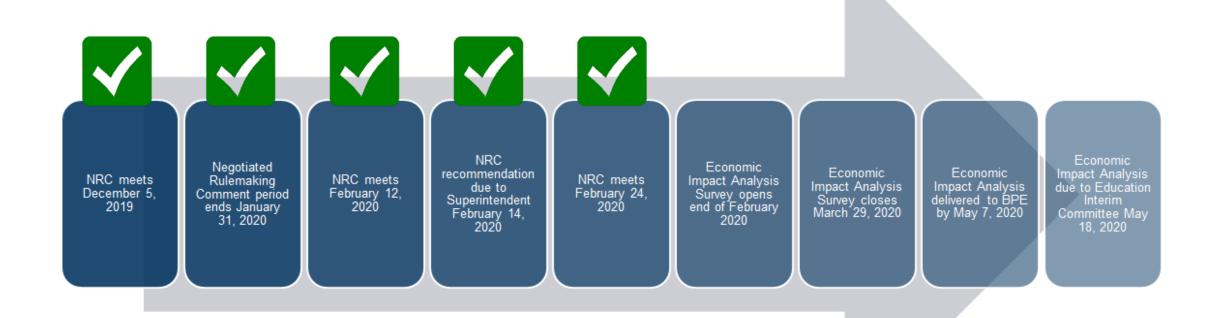


#### COMPUTER SCIENCE NRC REVISED TIMELINE



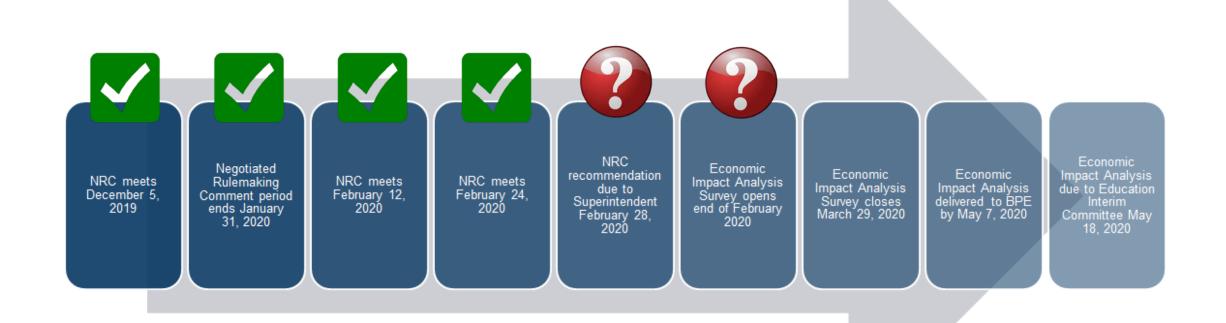


#### TECHNOLOGY INTEGRATION NRC REVISED TIMELINE





## LIBRARY MEDIA/INFORMATION LITERACY NRC REVISED TIMELINE





### MAPA PROPOSED TIMELINE

Introduction of work on rule changes to BPE March 12, 2020

Proposed new rules to BPE May 7, 2020 Proposed notice of hearing to BPE for approval of publication May 2020 Education Interim Committee reviews Economic Impact Analysis June 2020

Rule change notice to SOS for publication in MAR June 2020

Public Hearing date in July/August 2020 Final Public Input deadline August 2020 Adoption Notice to BPE for adoption of rules August 2020

BPE Adopts Rules September 2020

Effective Date of Rules July 1, 2021



## WRAP UP FOR COMMITTEE

## Next Meeting:

TBD



#### PUBLIC COMMENT

Please introduce yourself and spell your last name.

If you are speaking on behalf of an organization, identify the organization and your association with the organization.



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#### **ADJOURN**

Thank you for your commitment to Montana Public Education.

**Safe Travels!** 

