



JGMS

STEM

6th - 8th



**Implementation of
the Workshop Model**



Who We Are...

John King:
12th Year Teaching
7th Year Teaching STEM
@JGMS

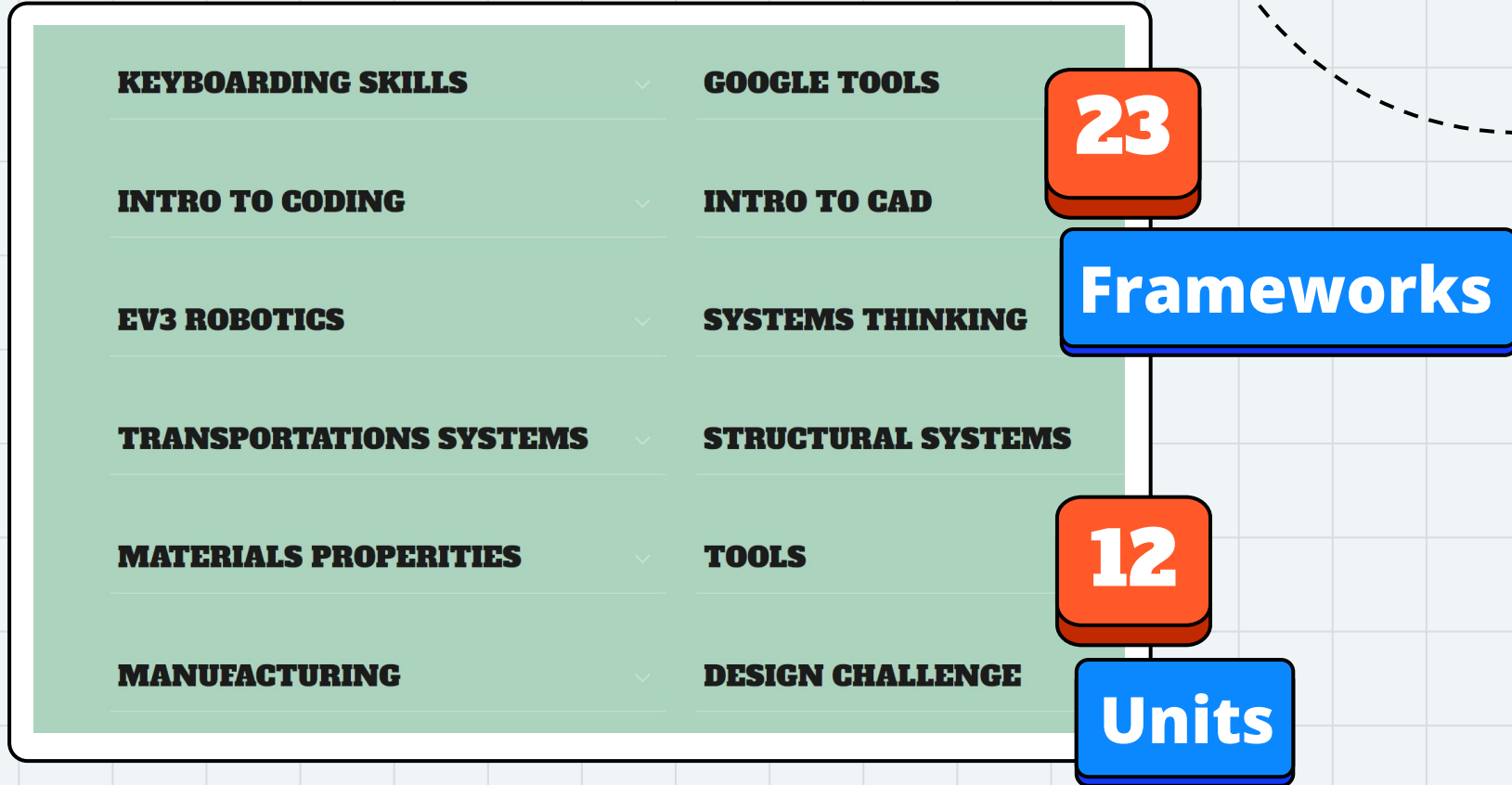


Lisa Morrison:
21st Year Teaching @BPS
2nd Year Teaching STEM
@JGMS



8th Grade Group Project on Transportation

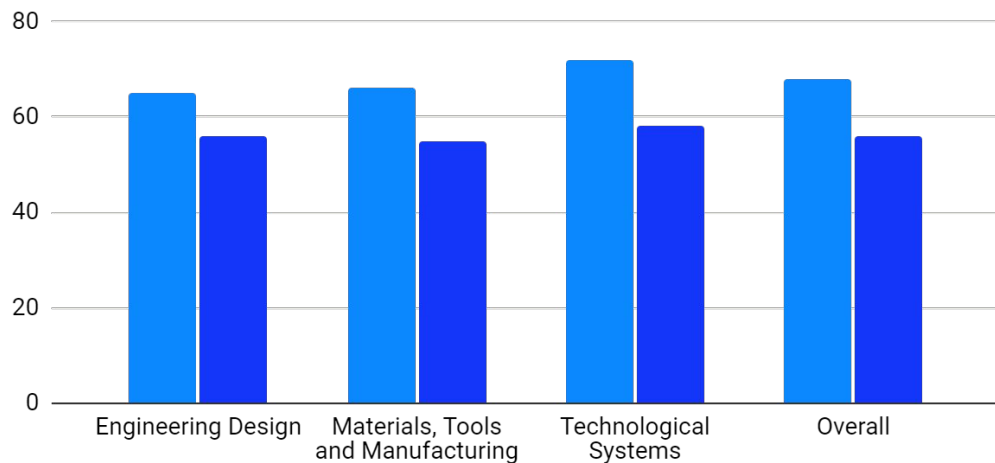
Overview: State Frameworks (Click for More Detail)





**7th Grade Group Skill
Practice - Complex
Turns**

2022 STEM MCAS Performance



JGMS consistently outperforms the state average on all Technology and Engineering Standards



JGMS

% of possible points

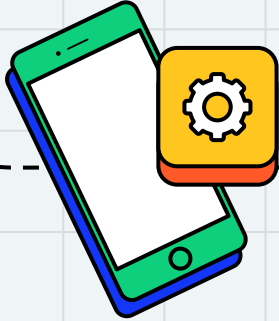


State

% of possible points

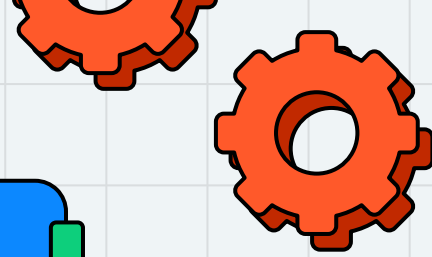
8th Grade Group Project on Transportation





MCAS Data

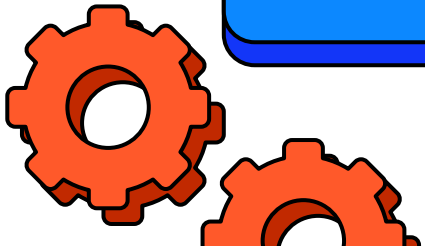
Analysis of data to
identify areas of
improvement



Summer PD

Differentiation and
the Workshop Model
(EDCO)

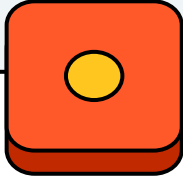
Program Revision!



8th Grade Group Project on Transportation

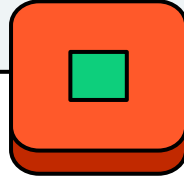


Revise, Implement, Reflect, Revise...



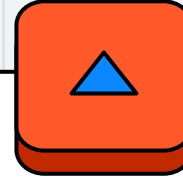
Mini Lectures

Using video based lectures and note checks*



Data Based Grouping

Student groups* are constantly revised based on progress through each module.



Focus on Individual Learning

Students' empowered to refine and reflect on habits* and behaviors*

* Opportunities for differentiation based on individualized student needs/preferences

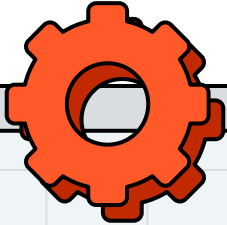
**7th Grade
Group
Challenge #1
Rainbow Road**



Mini Lectures

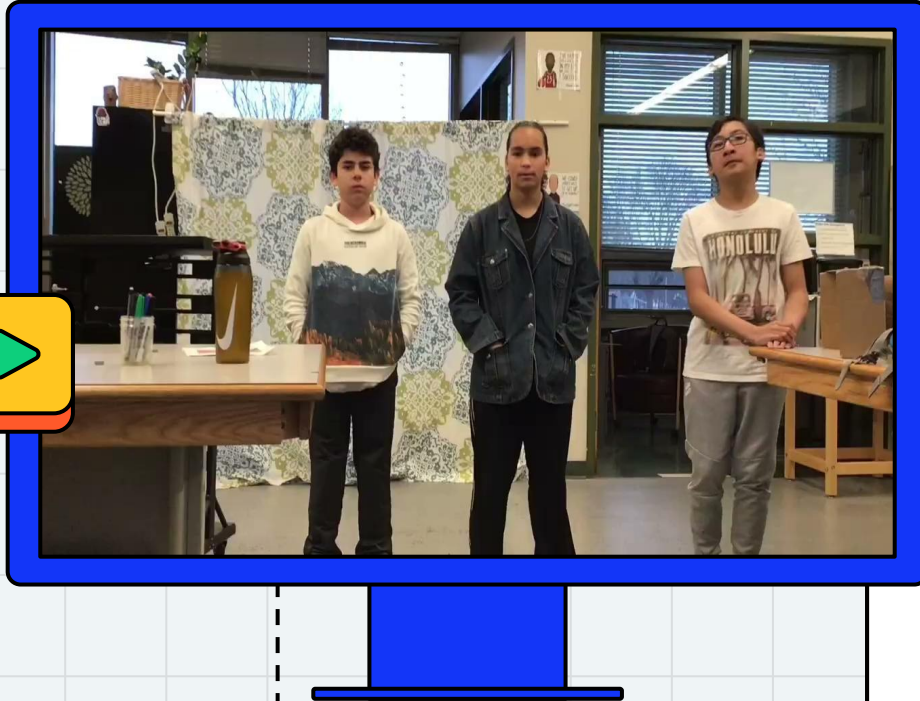
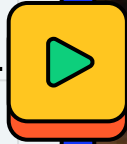
Students answered the following question:

What do you like or dislike about the video lectures and note checks?





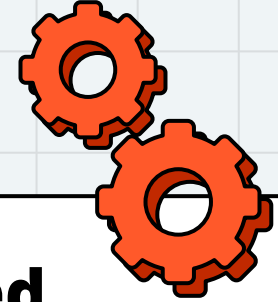
**7th Individualized
learning focusing on
CAD and the Cricut**



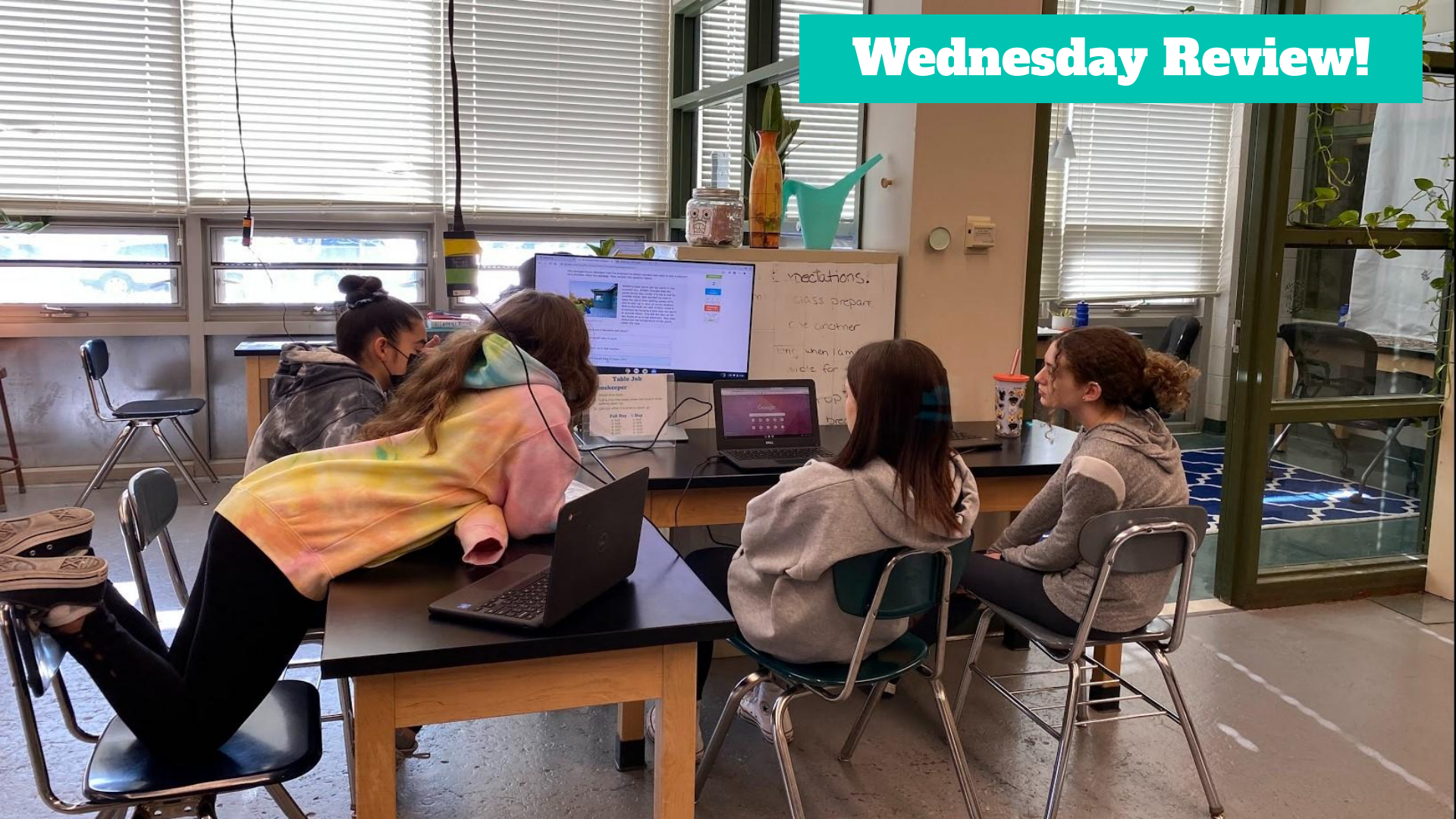
Data Based Grouping


Students answered the following question:

What do you like or dislike about groupings based on your progress?



Wednesday Review!

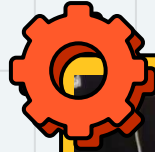




Focus on Individual Learning

Students answered the
following question:

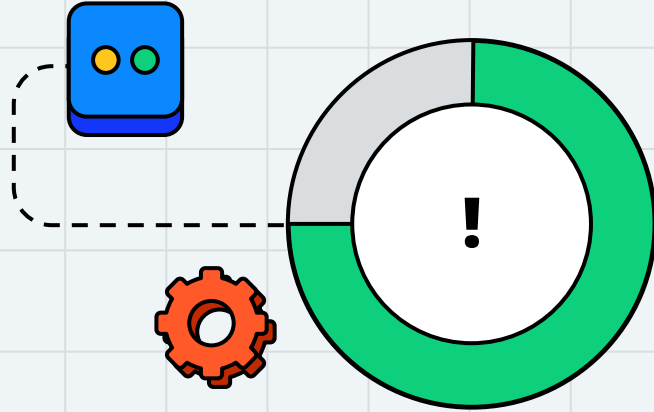
What do you like or
dislike about the
reflection based
grading in STEM?



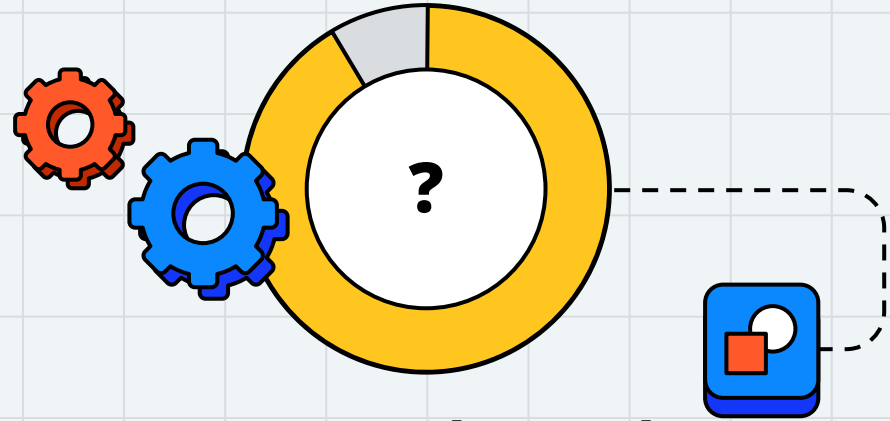
7th Grade Group Skill Practice - Move Steering



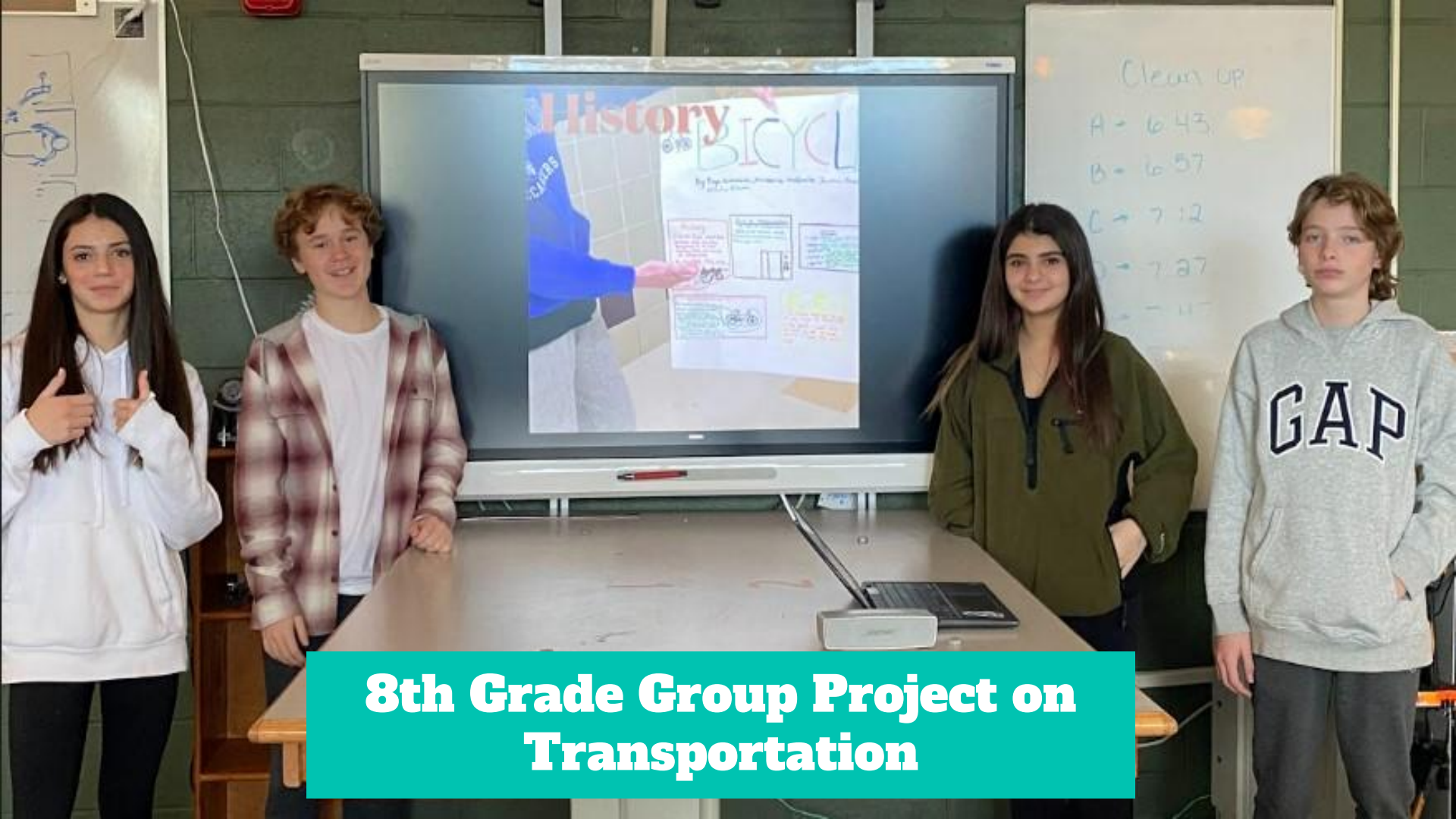
Is It Working?



- **2021 Student and Parent Feedback**
- **2022 MCAS Scores**



- **2022 Student and Parent Feedback**
- **2023 MCAS Scores**



8th Grade Group Project on Transportation



602



JGMS Students Impacted



THANK

YOU!



Additional Examples Attached

CREDITS: This presentation
template was created by
Slidesgo, including icons by
Flaticon, and infographics &
images by **Freepik**


Reflection Data:

Attendance Prepared1 Personal Responsibility1 Positive Community Member1 Notes					Attendance Prepared2 Personal Responsibility2 Positive Community Member2 Notes					Attendance Prepared3 Personal Responsibility3 Positive Community Member3 Notes					Attendance Prepared4 Personal Responsibility4 Positive Community Member4 Notes				
Cycle 1 September					Cycle 2 September					Cycle 3 October					Cycle 4 October				
1	3	4	3	4	1	3	4	3	3	1	3	4	3	3	1				
1	2	4	3	3	1	3	4	4	4	1	3	3	3	4	1	3	3	4	4
1	2	4	3	3	1	2	4	4	4	1	3	3	4	4	1	3	4	4	4
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1	2	3	3	3	1	3	4	4	3	1	3	2	3	3	1	2	3	4	4

Example Data Tracking

AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AM	AN	AO	AP	AQ	AR	AS	AT	AU	AV	AW	AX	AY	AZ	BA
Saving and Emailing						Notes	WKST	Move Steering						Notes	Code.org	ward and Back	Turns	Complex Turns						Notes	Code.org	Wkst
0.5	1					x	x	#N/A							50%			#N/A								
1						x	x	#N/A							x			#N/A								
1						x	x	0.9090						x	x	x		#N/A								
1						x	x	0.9090						x	x	x		#N/A								
0.9						x	x	0.9090						x	x	x		#N/A								
1						x	x	1						x	x	x	x	#N/A								
1						x	x	0.7272	0.9090					x	x	x	x	0.9090						x	x	
1						x	x	0.9090						x	x	x	x	0.9090						x		
0.9						x	x	1						x	x	x	x	0.8181	1					x	x	
1						x	x	0.9090						x	x	x	x	#N/A								
1						x	x	1						x	x	x	x	0.8181	1					x	x	
1						x	x	1						x	x	x	x	1						x	x	
1						x	x	1						x	x	x	x	1						x	x	
1						x	x	1						x	x	x	x	1						x	x	

Example of Modules:

 JGMS STEM

Home6th Grade7th Grade8th GradeHelpAlignment with MA State Frameworks

Module 1: Mindstorm

Learning Objectives:

- Start a new program
- Know the layout of the canvas
- Label the parts of the brick
- Know the function of the parts of the brick

Lessons:

- [Module: Intro to Mindstorm](#)

Module 2: Connecting

Learning Objectives:

- Connect your robot to your computer
- save your program
- email your program to your partner

Lessons:

- [Module: Connecting and Saving](#)

Module 3: Move Steering

Module 4: Tank

Challenge 1: Rainbow Road!

Module: Drive Steering

lisa_morrison@bedfordps.org [Switch account](#)

Your email will be recorded when you submit this form

Review and Notes

Do these lessons on Code.org

www.code.org

Complete all levels of **Lesson 3:** Maze Sequence earning a dark green circle for each level.
Complete all levels of **Lesson 4:** Artist Sequence earning a dark green circle for each level.

Move Steering Notes

Remember the title of the video should be at the top of a new note page. Your notes should be in bullets under the title. This video has LOTS of information but is short.

Take notes on this video then get 90% of the questions correct.

Move Steering: Forward and Back Practice

Speak with a teacher to get the worksheet for this practice work.

Move Steering: Turning

Speak with a teacher to get the worksheet for this practice work

Back

Submit

Clear form

8th Grade Transportation Module

7th Grade Drive Steering Module



Module 2: Transportation Systems

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Your email will be recorded when you submit this form

Transportations System Notes

Take notes on transportation systems. Your notes should have the title of the video at the top of the page and should be bullets under the title.

Transportation System Notes: Click on the "You Tube" to make the video full screen.



Use your notes to answer these questions: [Transportation Systems Check](#)

Continue taking this check until you earn a score of 90%. Remember to add to your notes anything you are getting wrong on the check.

Once you get 90% show the teacher's your notes and you will be allowed to move into the workshop to do your practice work.

Back

Next

Clear form