

Nutley Public Schools

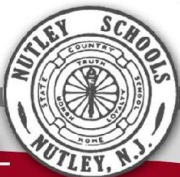
Science

Health/Physical Education

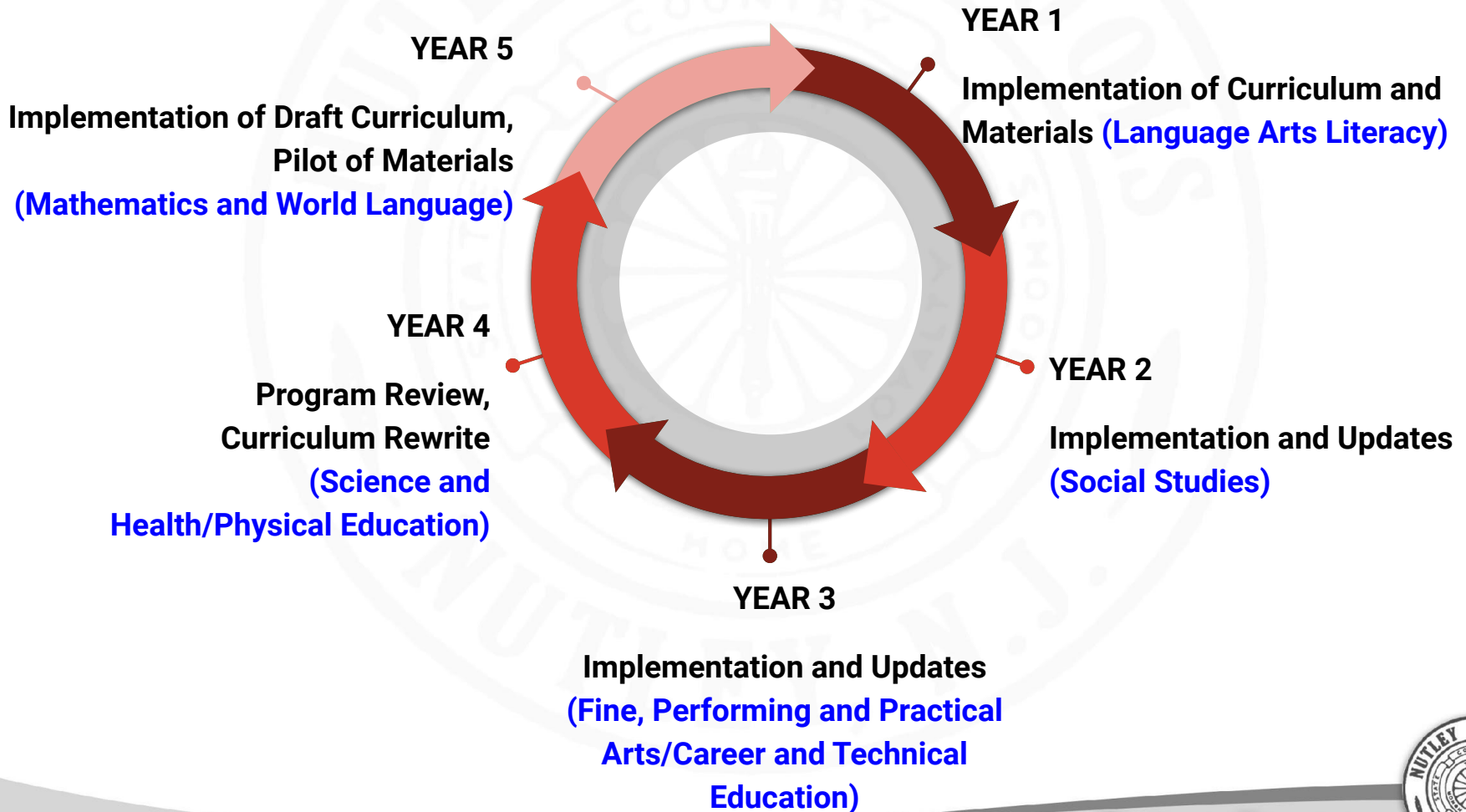
K-12 Program Review

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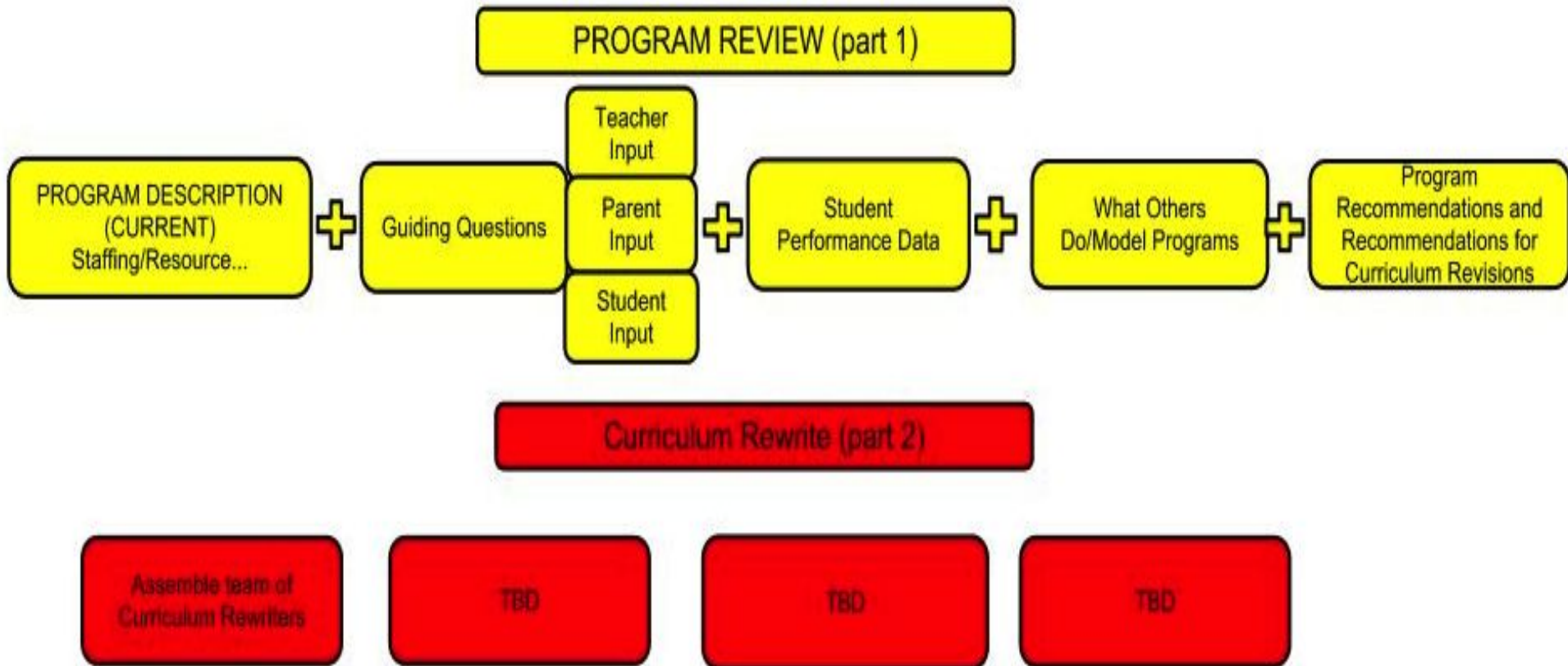
April 29, 2019



2018-2019 Curriculum Renewal Cycle



Year 4





Mrs. Carly Johnson

Coordinator of Science K-12



Guiding Questions

Science Curriculum Review

1. Is our programming aligned appropriately, K-12, to the New Jersey Student Learning Standards - Science?
2. Are we providing curriculum that is well aligned to, paced with and meeting the expectations of the NJ Model State Curriculum in science?
3. Are our assessments meeting the demands of the current NJDOE model? Specific to the dimensionality of our questions.
4. Does our program offer broad spectrum programming in all areas of science (life, earth and space) in grades K-12?
5. Are there opportunities for specialized learning or expansion in science in grades K-12?
6. Does our curriculum meet the needs of all of our learners efficiently?
7. Does our curriculum meet the needs of our learning environments efficiently?
8. Does our curriculum meet the needs of our fiscal climate efficiently?

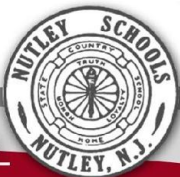


Best Practices

Science Programming

We want our learners to be thinking, speaking and doing science through:

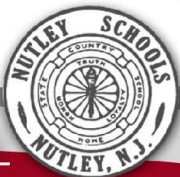
- Explorations that are anchored in a question or natural phenomenon
- Opportunities to explore, think broadly and freely, and to express ideas and thinking patterns
- Finding solutions to problems through a design process of reflection, analysis, making improvements, testing ideas
- Data collection and identification of data trends
- Speaking clearly and concisely about findings in context of current explorations and within the broader unit or sequence of thinking
- Making connections to other subject areas
- Utilizing non-fiction text and argumentative writing skills to gain background knowledge, convey exploration findings, explore data conflicts, and prove/disprove theories



Our Needs

Science Curriculum Review

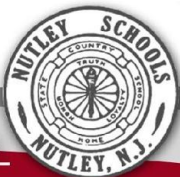
1. Align curriculum, K-12, to the revised and updated NJ Model Curriculum in Science with special focus at the middle level.
2. Incorporate an online resource component into the curriculum K-5.
3. Find a program at the K-5 level that eliminates the need for supply sharing.
4. Redesign our assessments to reflect the multidimensional nature of the learning standards.
5. Practice fiscal responsibility in our procurement of programming, materials and resources.
6. Provide articulation maps that support the NJ Model Curriculum in Science and create true spirals of content that increase in rigor and exploration as a student moves through K-12.



Programmatic Shifts

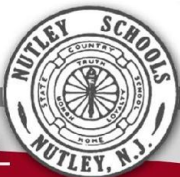
Science Department K-12

1. K-5 to receive new programming; Mystery Science.
2. All teachers K-5 will have their own supplies in their respective schools; no longer shared resources outside of the buildings.
3. Middle level science education (6-8) to be redesigned to meet model demands. Units to be shifted from one grade to another. IE- Space/Earth to grade 6, Human Systems to grade 8
4. Redesign of assessments K-12 to ensure questions are multidimensional. IE- inclusive of practical application of learning, graphical analysis, read/respond to text
5. District created benchmarks will be created and delivered to ensure pacing of curriculum at all schools, K-6, districtwide.
6. Infusion of problem based learning applications, K-12. IE- Design a structure to withstand a hurricane as a way to learn about forces, gravity, friction and aerodynamics. (Grade 8)



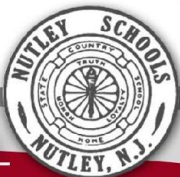
Ms. Robyn Powell

Coordinator of Health and
Physical Education K-12



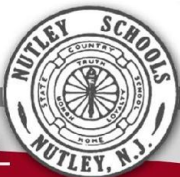
Guiding Questions

- Is our curriculum sequential, comprehensive and aligned to standards?
- Does our instruction support the curriculum, provide active engagement, and inclusive?
- Do our assessments measure student growth?
- How do our facilities and class size impact instruction and student engagement?



Best Practice

- Student demonstration of physical competence and cognitive understanding of health concepts
- Opportunities to develop positive attitudes about physical activity and healthy behaviors
- Provide appropriate and meaningful time for practice
- Students in MVPA more than 50% class time via: small sided games, modified games, circuits, equipment for all to participate, etc.
- Regular/ongoing assessment based on standards
- Fitness assessment used to set goals for improvement
- Class size equal to classroom



Needs

PROGRAM & COURSES:

Continue growing:

- Project Adventure
- FITNESSGRAM
- Academy Courses

Structure and Alignment

- Grade 6 Health

Curriculum & Assessment:

Revise the Health and Physical Education Curriculum under a lens of vertical and horizontal alignment

- NJ Student Learning
- National Standards
- Progression

Continue to create a clear scope and sequence for each elementary grade level in both health and physical education

Revise assessments

Identify health education materials for grade 6



Needs

RESOURCES & TECHNOLOGY:

Purchase Digital Health series for health education in grades K-5

Replace/maintain facilities (HS girls locker room, weight room, elementary outdoor space), class materials and equipment

Add to Project Adventure resources

- Cargo Net

Continue with FITNESSGRAM Software

PROFESSIONAL DEVELOPMENT

Project Adventure - attend Project Adventure element training and refresher

Physical Education – provide sessions on best practice and teaching strategies

