

# Shelley MOORE PH.D.



@tweetsomemoore



@fivemooreminutes



@fivemooreminutes



[www.fivemooreminutes.com](http://www.fivemooreminutes.com)

[www.blogsomemoore.com](http://www.blogsomemoore.com)

The background features several large, solid-colored circles in teal, orange, and blue, scattered across the white space. The text is centered and reads: 

**What are you**  
*hoping to*  
**take away from**  
*today?*

**WHAT DOES**

*inclusion*

**MEAN?**

**WHAT DOES**

*inclusion*

**LOOK LIKE?**

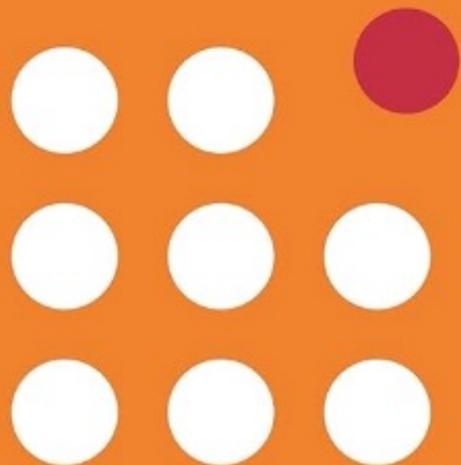
**WE ARE COMING**

**OUT!**

3rd Edition



# Dealing with Difficult People



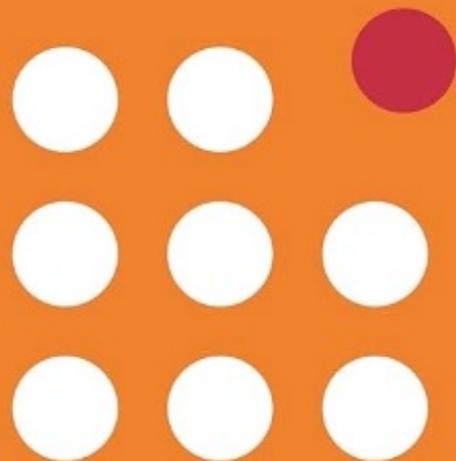
**Roy  
Lilley**



3rd Edition



# Dealing with Difficult People

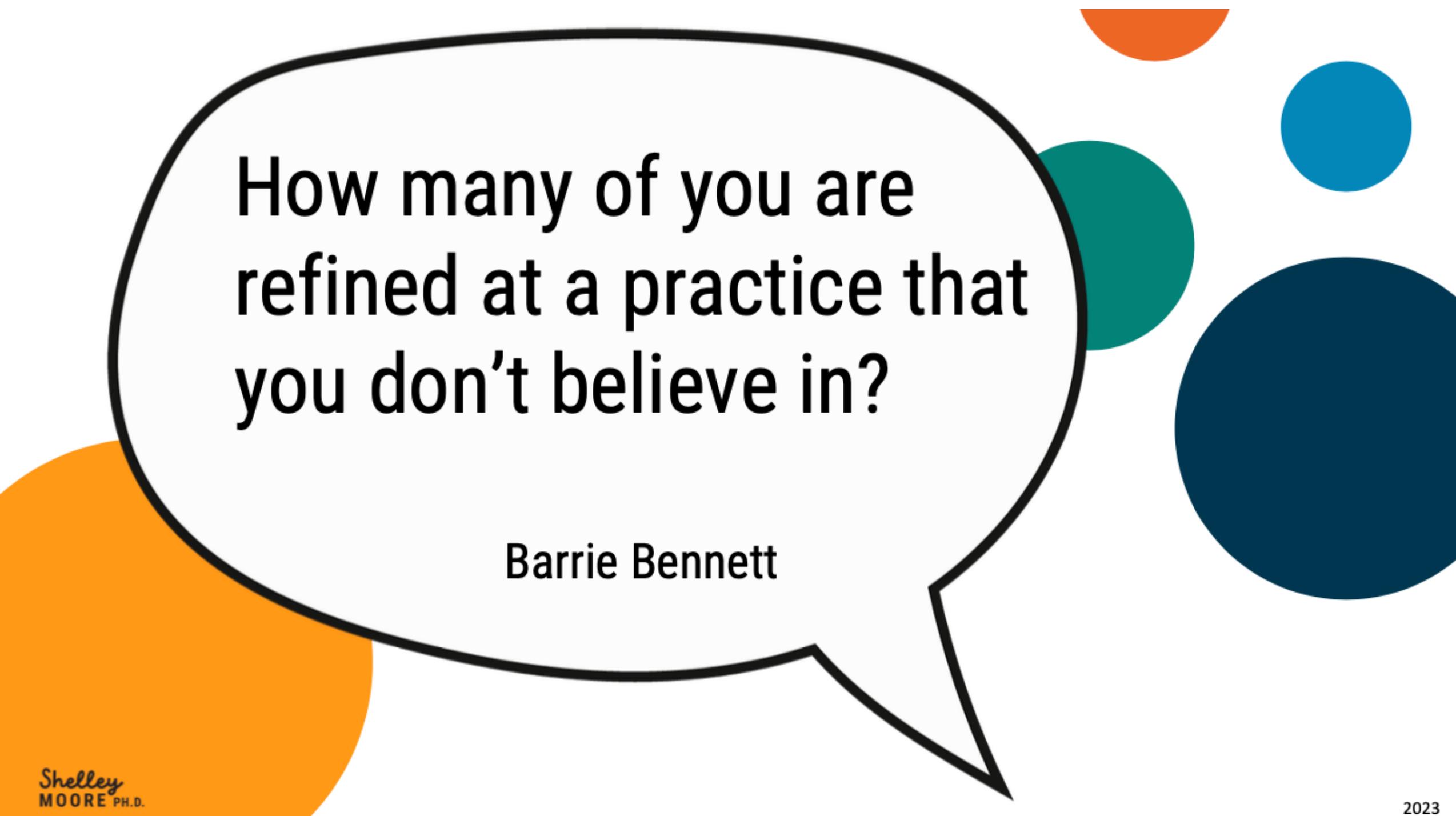


Roy  
Lilley



Shelley  
MOORE PH.D.

**“If you bought this book...you are the difficult person.”**



How many of you are  
refined at a practice that  
you don't believe in?

Barrie Bennett

**My educational  
philosophy & beliefs**

**My educational  
practices**





**What are you connecting to?**

WHAT DOES

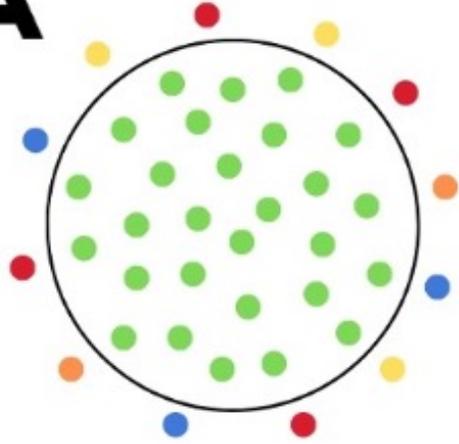
*inclusion*

MEAN?

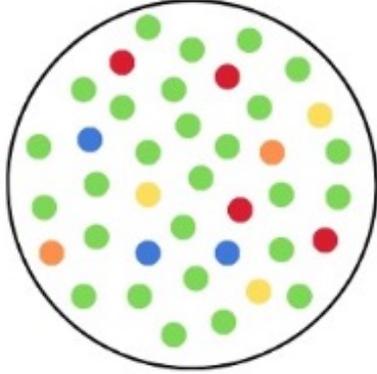
LOOK LIKE?

# WHAT IS *Inclusion*?

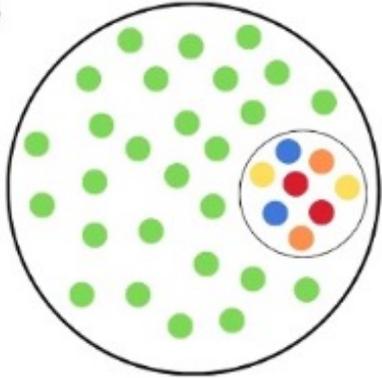
**A**



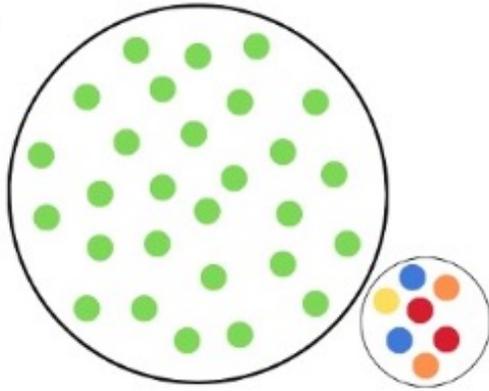
**C**



**B**



**D**



**exclusion**

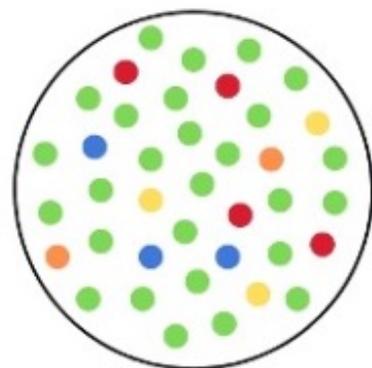
**integration**

*inclusion*

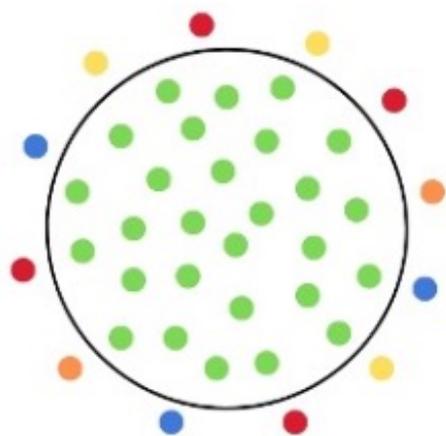
**congregation**

**segregation**

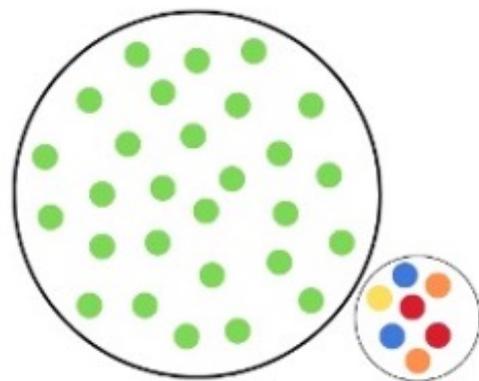
# WHAT IS *inclusion*?



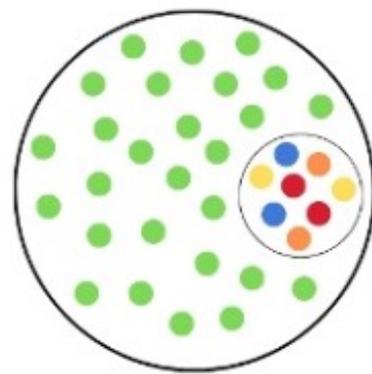
inclusion



exclusion



segregation

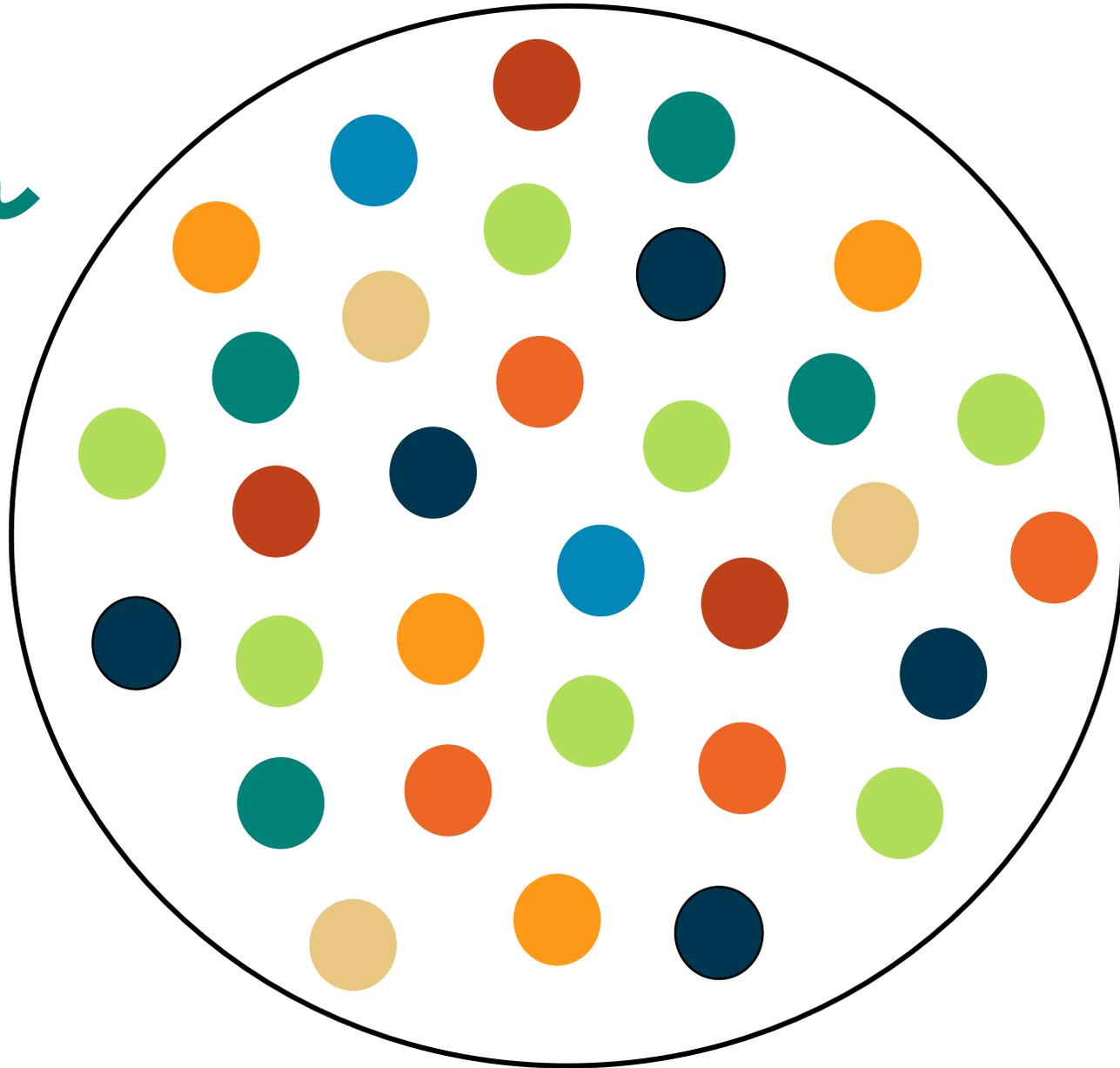


integration

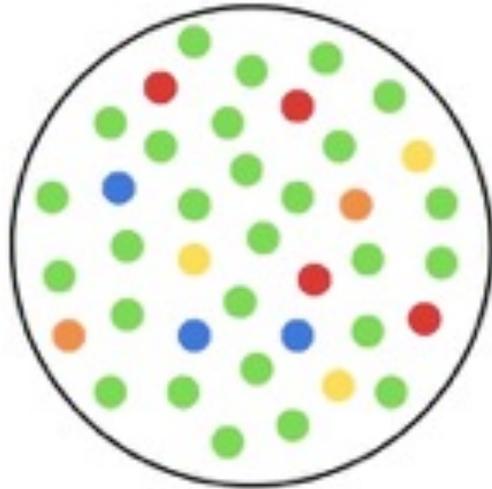


**What are you thinking about?**

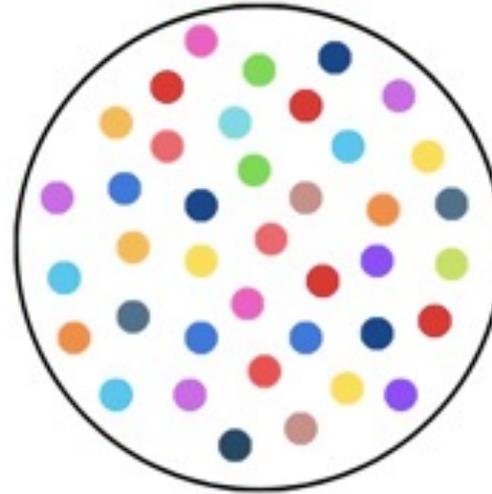
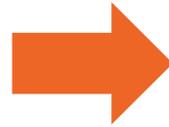
# WHAT IS *inclusion* ?



# WHAT IS *inclusion* ?

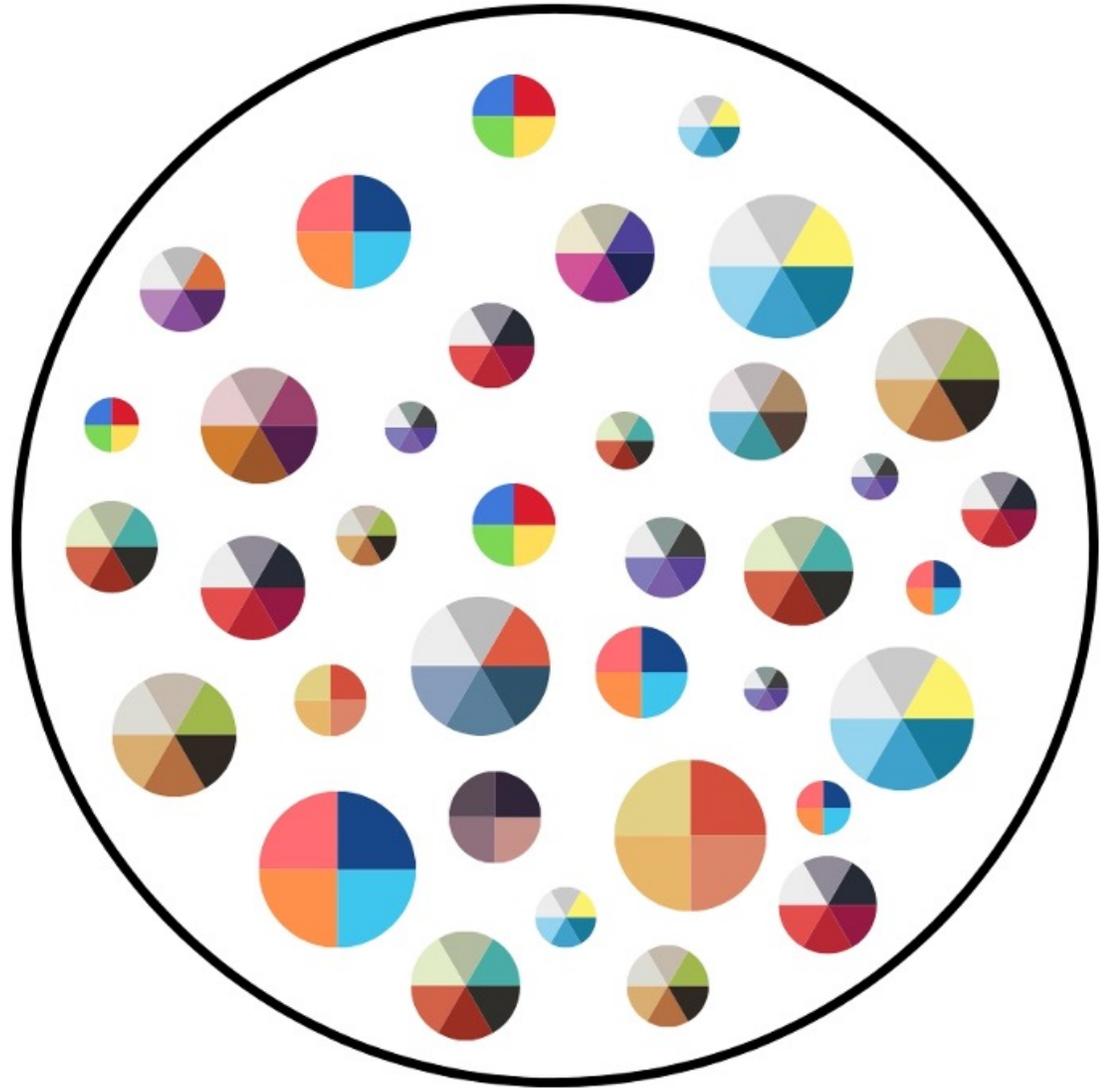


How do we  
*include* people  
with disabilities?



How do we teach  
to *diversity*?

# WHAT IS *inclusion*?



# WHAT IS *inclusion*?



# Communities of Identity

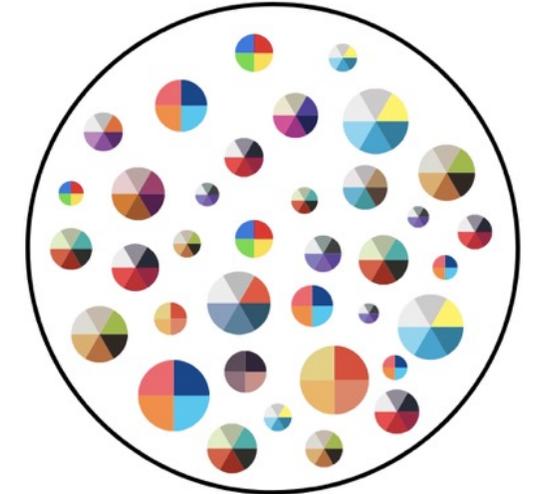
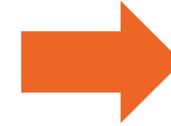
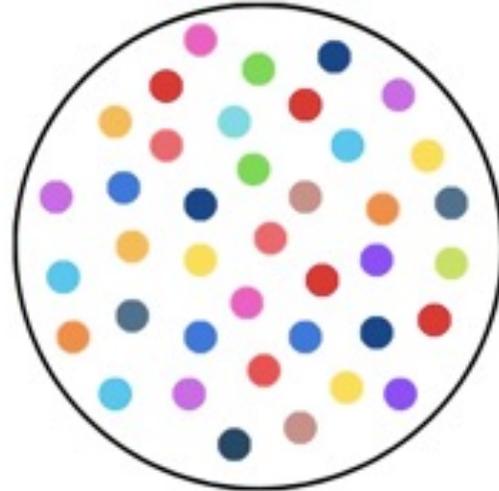
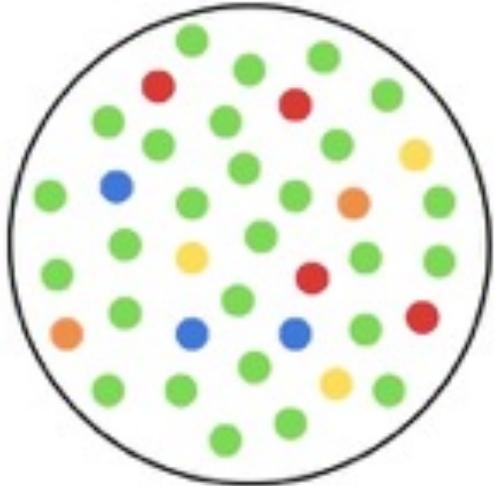


**WHAT IS**  
*inclusion*

?

**Communities of Diversity**

# WHAT IS *inclusion* ?



***Including***  
'special needs' students  
into general education  
classrooms

Teaching and designing for  
***diversity***  
(that includes Disability)

Creating space for  
students to feel confident  
and safe to ***identify?***  
(that includes students  
who are Disabled)



How do we *plan*  
for the ~~disabilities~~ *needs*  
of students?



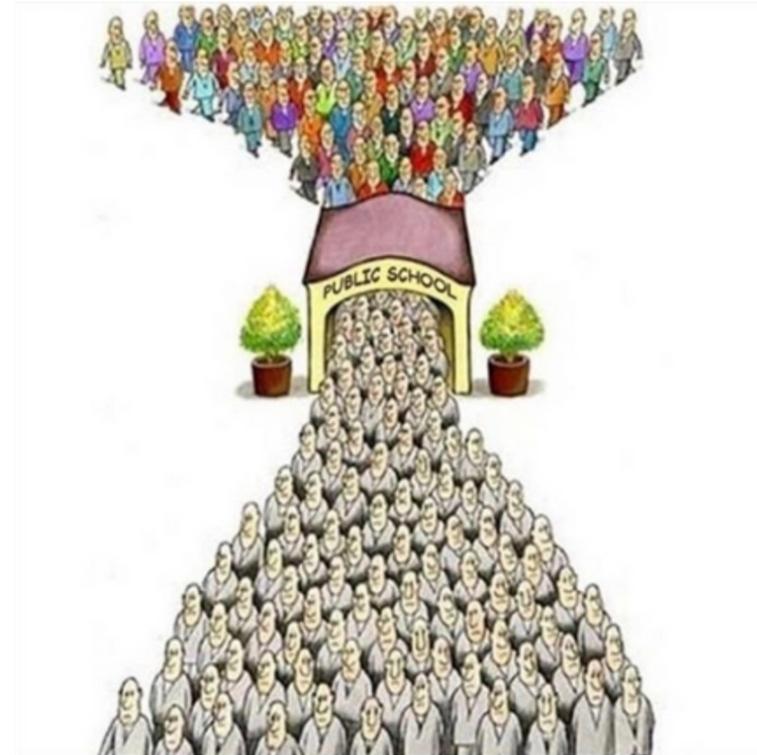
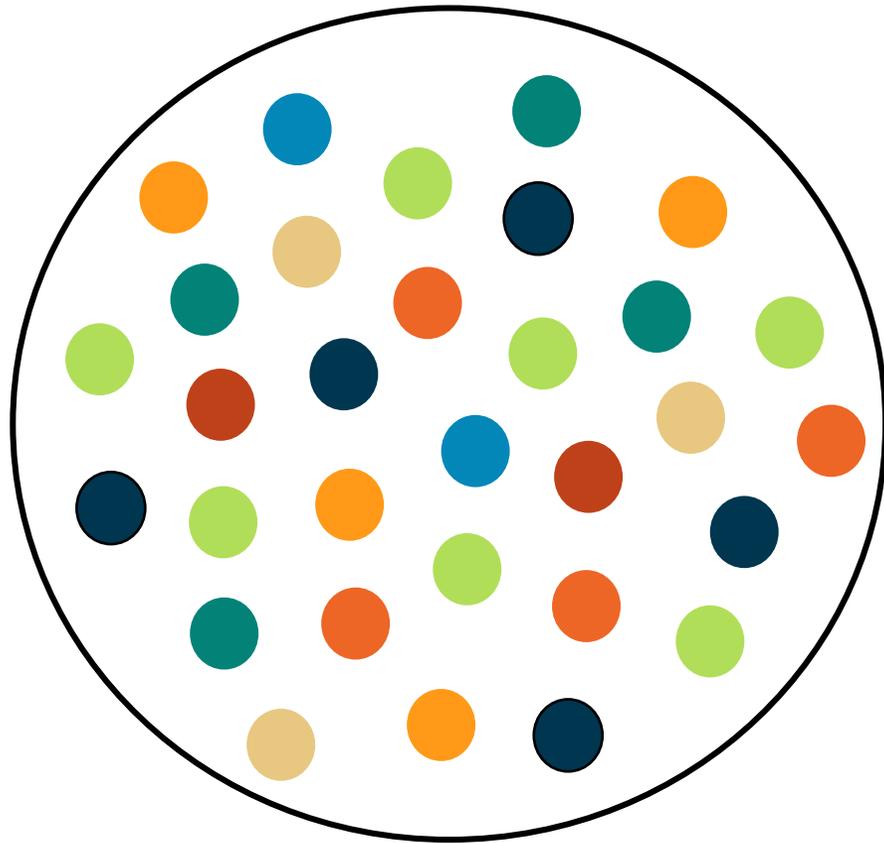
**HOW CAN WE**

*shift our thinking*

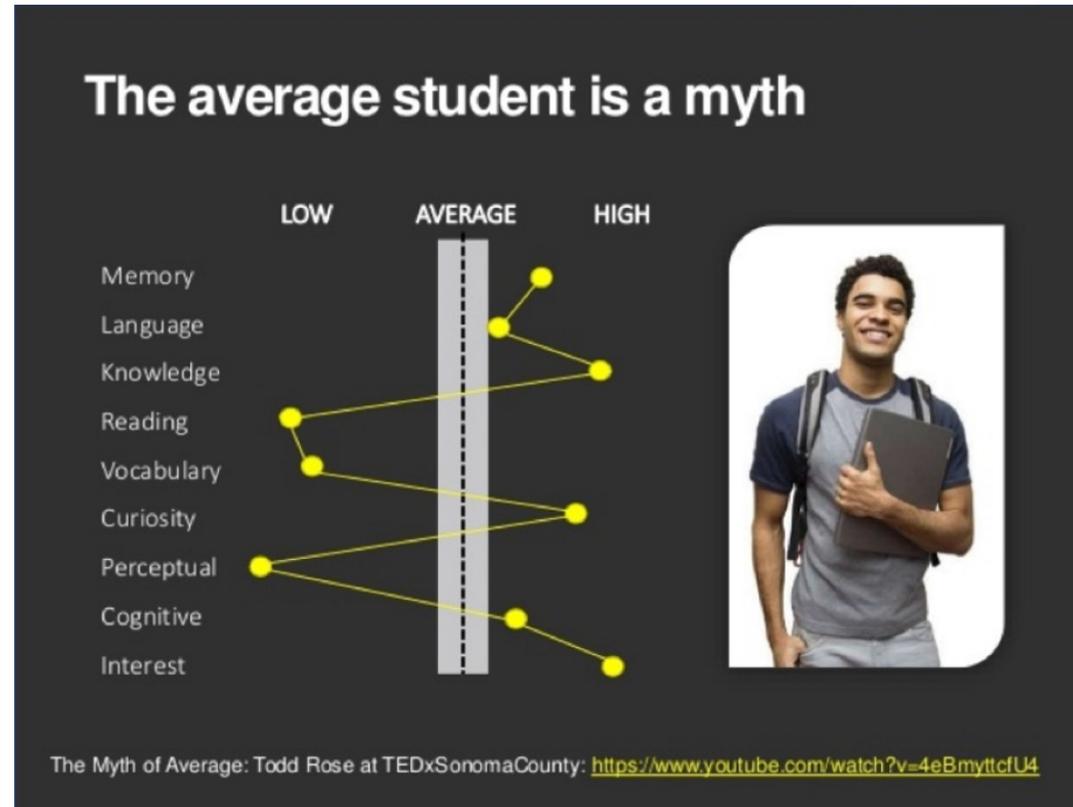
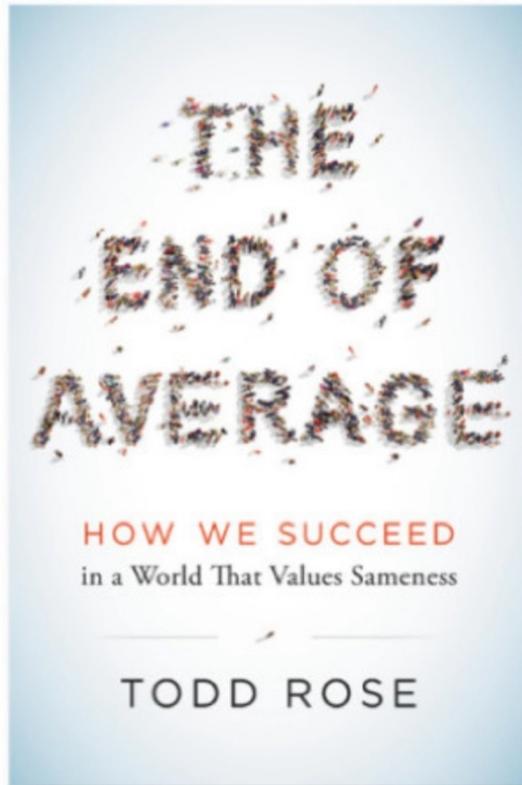
**TOWARDS**

*inclusion?*

# What is the goal of education?

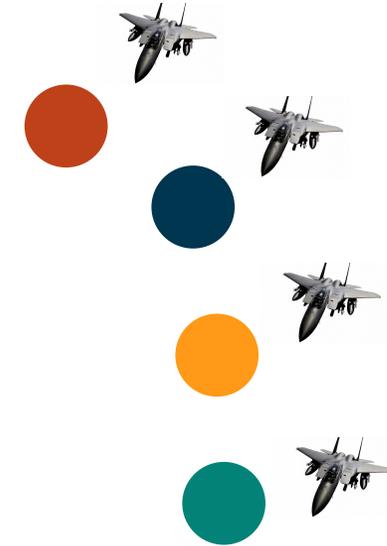
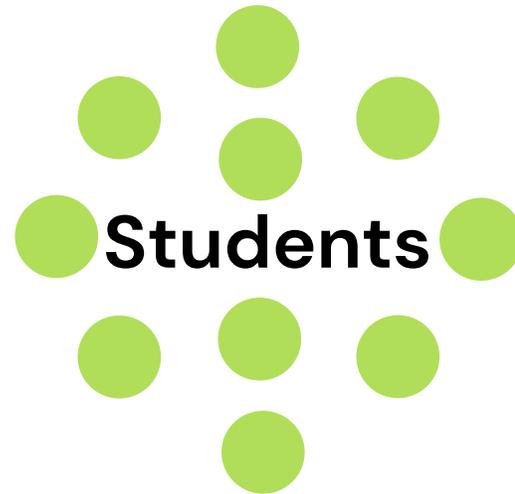
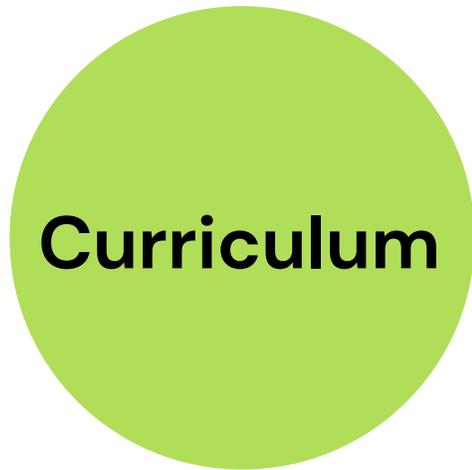


# WHAT IS “normal”?

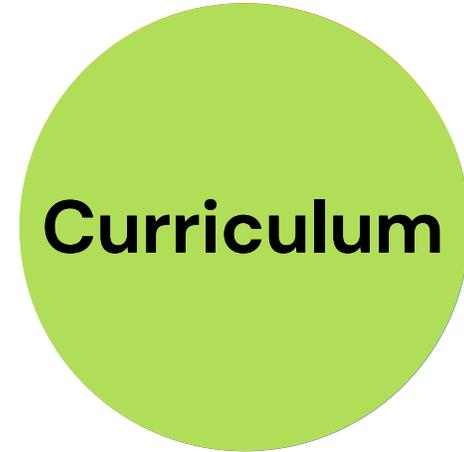
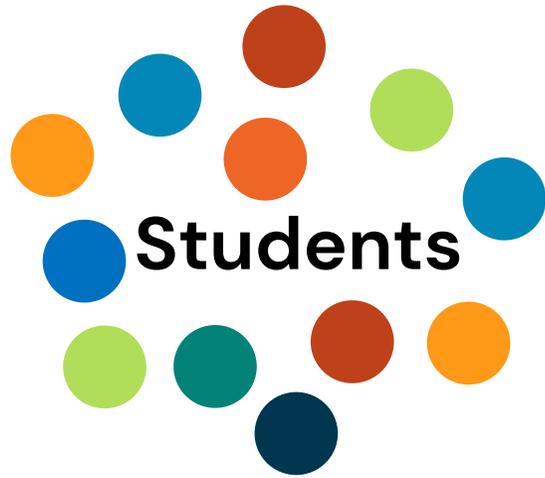


# WHAT IS “average”?

# WHAT & HOW WE WERE TAUGHT...



# WHAT IF WE ANTICIPATED *variability*



# INSTEAD OF *homogeneity*?

# HOW DO WE DESIGN AN ADJUSTABLE PLANE?

- Who are the **pilots**? What are their **dimensions**?
- What kind of **planes** are they flying?
- How is the plane **responsive** to the pilot's dimensions?
- How do the **pilots make the adjustments** they need to fly the plane?



# HOW DO WE DESIGN AN ADJUSTABLE PLANE?

- Who are the **students**? What is the range of the **variability**?
- What is the **grade level curriculum** that students need to access?
- How is the grade level curriculum **responsive** to the range of student variability?
- How do we help **students to make the adjustments** they need to access the grade level curriculum?





HOW CAN WE

*shift our practices*

TOWARDS

*inclusion?*



**Useful take aways so far**

What grade level curriculum are we using?  
What are the learning standards?

# CURRICULUM & ASSESSMENT DESIGN

Student choice of challenge  
Adjustable Curriculum

Student choice of evidence  
Adjustable Assessment

# Students

Who are the pilots?  
What are their dimensions?  
Where is their agency?

Adjustable Supports & Strategies  
Student choice of tools and actions

# NEEDS BASED DESIGN

What are the student needs?  
What barriers are getting in the way?  
What do student require to navigate needs & barriers?

# INSTRUCTIONAL DESIGN

How will students show growth within the learning standard?  
How do we know?

What grade level curriculum are we using?  
What are the learning standards?

## CURRICULUM & ASSESSMENT DESIGN

Student choice of challenge  
Adjustable Curriculum

Student choice of evidence  
Adjustable Assessment

# Students

Who are the pilots?  
What are their dimensions?  
Where is their agency?

## NEEDS BASED DESIGN

What are the student needs?  
What barriers are getting in the way?  
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Adjustable Supports & Strategies  
Student choice of tools and actions

## INSTRUCTIONAL DESIGN

How will students show growth within the learning standard?  
How do we know?

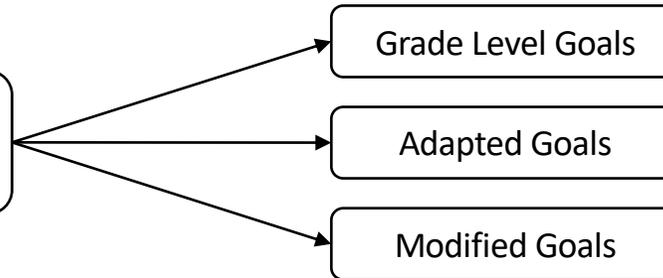
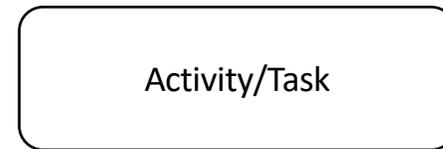


# How I came to understand BACKWARDS DESIGN

# UBD: Determining the Learning Standard

## Forward Design

Same for Everyone



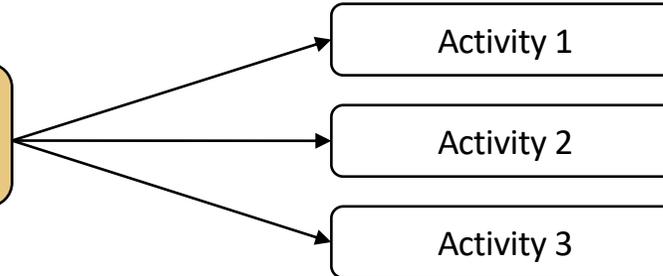
Standardized

Differentiated

Compromises the integrity of evaluation

## Backward Design

Same for Everyone



Differentiated

Does not compromise the integrity of evaluation

Standards Based

# Backwards Design

- 1. Content Knowledge**
- 2. Skills & Processes**

# Backwards Design

- 1. Learning Context**
- 2. Big Ideas/ Understandings**
- 3. Knowledge**
- 4. Skills**
- 5. Competencies**

# Different Curricular Models

- Strand
- Domain
- Standard
  - substandard
  - substandard
  - substandard

- Strand
- Domain
- Standard
- Standard
- Standard

- Strand
- Domain
- Standard
  - substandard
- Standard
  - substandard
- Standard
  - substandard

# Different Curricular Models

- Learning Context
  - Big Ideas
  - Learning Standard
    - substandard
    - substandard
    - substandard
- Learning Context
  - Big Ideas
  - Learning Standard
  - Learning Standard
  - Learning Standard
- Learning Context
  - Big Ideas
  - Learning Standard
    - substandard
  - Learning Standard
    - substandard
  - Learning Standard
    - substandard

# Different Curricular Models

- Learning Context
  - Big Ideas
  - Learning Standard
    - substandard
    - substandard
    - substandard
- Learning Context
  - Big Ideas
  - Learning Standard
  - Learning Standard
  - Learning Standard
- Learning Context
  - Big Ideas
  - Learning Standard
    - substandard
  - Learning Standard
    - substandard
  - Learning Standard
    - substandard

# Different Curricular Models

- Learning Context
- Learning Standard
  - substandard
  - substandard
  - Substandard
- Learning Standards (literacy/numeracy)

**NGSS**

| <b>Backwards Design Facet</b>  | <b>Science (NGSS)</b>                          |
|--------------------------------|--|
| <b>Learning Context</b>        | Title  |
| <b>Learning Standard</b>       | Performance Expectation                        |
| <b>Big Idea (I understand)</b> | Cross Cutting Concepts                         |
| <b>Knowledge (I know)</b>      | Disciplinary Core Ideas                        |
| <b>Skills (I can)</b>          | Science & Engineering Practices                |
| <b>Competencies (I am)</b>     | Connections to literacy and numeracy standards |

# Different Curricular Models

- Learning Context
- Big Idea
- Learning Standard
  - substandard
  - substandard
  - substandard

**Family &  
Consumer  
Sciences (FCS)**

| <b>Backwards Design Facet</b>      | <b>FCS</b>              |
|------------------------------------|-------------------------|
| <b>Learning Context</b>            | Area of Study           |
| <b>Learning Standard</b>           | Content Standards       |
| <b>Big Idea<br/>(I understand)</b> | Comprehensive Standards |
| <b>Knowledge<br/>(I know)</b>      | None                    |
| <b>Skills<br/>(I can)</b>          | Competencies            |
| <b>Competencies<br/>(I am)</b>     |                         |

# Next Generation Science Standards (NGSS)

What do we need to **UNDERSTAND?**

*Big Ideas*

What do we need to **KNOW?**

*Knowledge*

What do we need to **DO?**

*Skills*

| MS. Structure and Properties of Matter   |  |   |
|--|--|---|
| Students who demonstrate understanding can:  |  |   |
| <b>MS-PS1-1. Develop models to describe the atomic composition of simple molecules and extended structures.</b><br>[Clarification Statement: Emphasis is on developing models of molecules that vary in complexity. Examples of simple molecules could include ammonia and methanol. Examples of extended structures could include sodium chloride or diamonds. Examples of particulate-level models could include drawings, 3D ball and stick structures, or computer representations showing different substances with different types of atoms.] [Assessment Boundary: Assessment does not include valence electrons and bonding energy, discussing the individual ions composing complex structures, or a complete depiction of all individual atoms in a complex molecule or extended structure.]   |  |   |
| <b>MS-PS1-3. Gather and make sense of information to describe that synthetic materials come from natural resources and impact society.</b> [Clarification Statement: Emphasis is on natural resources that undergo a chemical process to form the synthetic material. Examples of new materials could include new medicine, foods, and alternative fuels.] [Assessment Boundary: Assessment is limited to the qualitative interpretation of evidence provided.]  |  |   |
| <b>MS-PS1-4. Develop a model that predicts and describes changes in particle motion, temperature, and phase (state) of a substance when thermal energy is added or removed.</b> [Clarification Statement: Emphasis is on qualitative particulate-level models of solids, liquids, and gases to show that adding or removing thermal energy increases or decreases kinetic energy of the particles until a change of phase occurs. Examples of models could include drawings and diagrams. Examples of particles could include ions, molecules, or atoms. Examples of substances could include sodium chloride, water, carbon dioxide, and helium.]   |  |   |
| <b>MS-PS1-7. Use evidence to illustrate that density is a property that can be used to identify samples of matter.</b><br>[Clarification Statement: Emphasis should be on students measuring the masses and volumes of regular and irregular shaped objects, calculating their densities, and identifying the samples of matter.]  |  |   |
| <b>MS-PS1-8. Plan and conduct an investigation to demonstrate that mixtures are combinations of substances.</b><br>[Clarification Statement: Emphasis should be on analyzing the physical changes that occur as mixtures are formed and/or separated. Examples of common mixtures could include salt water, oil and vinegar, and air.] [Assessment boundary: Assessment is limited to separation by evaporation, filtration and magnetism.]  |  |   |
| The performance expectations above were developed using the following elements from the NRC document <i>A Framework for K-12 Science Education</i> .   |  |   |
| Science and Engineering Practices  | Disciplinary Core Ideas  | Crosscutting Concepts   |
| <p><b>Developing and Using Models</b><br/>Modeling in 6–8 builds on K–5 and progresses to developing, using and revising models to describe, test, and predict more abstract phenomena and design systems.</p> <ul style="list-style-type: none"> <li>Develop a model to predict and/or describe phenomena. (MS-PS1-1),(MS-PS1-4)</li> </ul> <p><b>Planning and Carrying Out Investigations</b> Planning and carrying out investigations to answer questions or test solutions to problems in 6–8 builds on K–5 experiences and progresses to include investigations that use multiple variables and provide evidence to support explanations or design solutions.</p> <ul style="list-style-type: none"> <li>Plan an investigation individually and collaboratively, and in the design: identify independent and dependent variables and controls, what tools are needed to do the gathering, how measurements will be recorded, and how many data are needed to support a claim. (MS-PS1-8)</li> <li>Collect data to produce data to serve as the basis for evidence to answer scientific questions or test design solutions under a range of conditions. (MS-PS1-8)</li> </ul> <p><b>Engaging in Argument from Evidence</b><br/>Engaging in argument from evidence in 6–8 builds from K–5 experiences and progresses to constructing a convincing argument that supports or refutes claims for either explanations or solutions about the natural and designed world.</p> <ul style="list-style-type: none"> <li>Construct and present oral and written arguments supported by empirical evidence and scientific reasoning to support or refute an explanation or a model for a phenomenon or a solution to a problem. (MS-PS1-7)</li> </ul> <p><b>Obtaining, Evaluating, and Communicating Information</b><br/>Obtaining, evaluating, and communicating information in 6–8 builds on K–5 and progresses to evaluating the merit and validity of ideas and methods.</p> <ul style="list-style-type: none"> <li>Gather, read, and synthesize information from multiple appropriate sources and assess the credibility, accuracy, and possible bias of each publication and methods used, and describe how they are supported or not supported by evidence. (MS-PS1-3)</li> </ul> | <p><b>PS1.A: Structure and Properties of Matter</b></p> <ul style="list-style-type: none"> <li>(NYSED) Substances are made of one type of atom or combinations of different types of atoms. Individual atoms are particles and can combine to form larger particles that range in size from two to thousands of atoms. (MS-PS1-1)</li> <li>(NYSED) Each substance has characteristic physical and chemical properties (for any bulk quantity under given conditions) that can be used to identify it. (MS-PS1-3),(MS-PS1-7) (Note: This Disciplinary Core Idea is also addressed by MS-PS1-2.)</li> <li>(NYSED) In a solid, the particles are closely spaced and vibrate in position but do not change their relative locations. In a liquid, the particles are closely spaced but are able to change their relative locations. In a gas, the particles are widely spaced except when they happen to collide and constantly change their relative locations. (MS-PS1-4)</li> <li>Solids may be formed from molecules, or they may be extended structures with repeating subunits (e.g., crystals). (MS-PS1-1)</li> <li>(NYSED) The changes of state that occur with variations in temperature and/or pressure can be described and predicted using these models of matter. (MS-PS1-4)</li> <li>(NYSED) Mixtures are physical combinations of one or more samples of matter and can be separated by physical means. (MS-PS1-8)</li> </ul> <p><b>PS1.B: Chemical Reactions</b><br/>(NYSED) Substances react chemically in characteristic ways. In a chemical process, the atoms that make up the original substances are regrouped into different particles, and these new substances have different properties from those of the reactants. (MS-PS1-3) (Note: This Disciplinary Core Idea is also addressed by MS-PS1-2 and MS-PS1-5.)</p> <p><b>PS3.A: Definitions of Energy</b></p> <ul style="list-style-type: none"> <li>(NYSED) The term "heat" as used in everyday language refers: both to thermal energy (the motion of particles within a substance) and the transfer of that thermal energy from one object to another. In science, heat is used only for this second meaning; it refers to the energy transferred due to the temperature difference between two objects. (secondary to MS-PS1-4)</li> <li>(NYSED) Temperature is not a form of energy. Temperature is a measurement of the average kinetic energy of the particles in a sample of matter. (secondary to MS-PS1-4)</li> </ul> | <p><b>Patterns</b></p> <ul style="list-style-type: none"> <li>Macroscopic patterns are related to the nature of microscopic and atomic-level structure. (MS-PS1-1),(MS-PS1-7),(MS-PS1-8)</li> <li>Graphs, charts, and images can be used to identify patterns in data. (MS-PS1-1),(MS-PS1-4)</li> </ul> <p><b>Cause and Effect</b></p> <ul style="list-style-type: none"> <li>Cause and effect relationships may be used to predict phenomena in natural or designed systems. (MS-PS1-4)</li> </ul> <p><b>Scale, Proportion, and Quantity</b></p> <ul style="list-style-type: none"> <li>Time, space, and energy phenomena can be observed at various scales using models to study systems that are too large or too small. (MS-PS1-1)</li> </ul> <p><b>Structure and Function</b></p> <ul style="list-style-type: none"> <li>Structures can be designed to serve particular functions by taking into account properties of different materials, and how materials can be shaped and used. (MS-PS1-3)</li> </ul> <p>-----</p> <p><b>Connections to Engineering, Technology, and Applications of Science</b></p> <p><b>Interdependence of Science, Engineering, and Technology</b></p> <ul style="list-style-type: none"> <li>Engineering advances have led to important discoveries in virtually every field of science, and scientific discoveries have led to the development of entire industries and engineered systems. (MS-PS1-3)</li> </ul> <p><b>Influence of Science, Engineering and Technology on Society and the Natural World</b></p> <ul style="list-style-type: none"> <li>The uses of technologies and any limitations on their use are driven by individual or societal needs, desires, and values; by the findings of scientific research; and by differences in such factors as climate, natural resources, and economic conditions. Thus technology use varies from region to region and over time. (MS-PS1-3)</li> </ul> |
| <p><i>Connections to other DCIs in this grade-band:</i> <b>MS.LS2.A</b> (MS-PS1-3); <b>MS.LS4.D</b> (MS-PS1-3); <b>MS.ESS2.C</b> (MS-PS1-1),(MS-PS1-4); <b>MS.ESS3.A</b> (MS-PS1-3); <b>MS.ESS3.C</b> (MS-PS1-3); <b>MS.LS4.D</b> (MS-PS1-3); <b>HS.ESS1.A</b> (MS-PS1-1); <b>HS.ESS1.A</b> (MS-PS1-1),(MS-PS1-3),(MS-PS1-4); <b>HS.PS1.B</b> (MS-PS1-4); <b>HS.PS3.A</b> (MS-PS1-4); <b>HS.LS2.A</b> (MS-PS1-3); <b>HS.LS4.D</b> (MS-PS1-3); <b>HS.ESS1.A</b> (MS-PS1-1); <b>HS.ESS3.A</b> (MS-PS1-3)</p>   |  |   |

# Backwards Design Planning

| Backwards Design Facet  | Science (NGSS)                             | Food Science, Dietetics, and Nutrition | Math   | ELA |
|-------------------------|--|--|--|-----|
| Learning Context        | Title                                      | Title                                  | Domain title                                 |     |
| Learning Standard       | Performance Expectation                    | Content standard                       | Learning standards (CCSS.Math...)            |     |
| Big Idea (I understand) | Cross Cutting Concepts                     | Comprehensive standard                 | Introduction to strand                       |     |
| Knowledge (I know)      | Disciplinary Core Ideas                    | None                                   | None   |     |
| Skills (I can)          | Science & Engineering Practices            | competencies                           | Learning standards/ substandards (sometimes) |     |
| Competencies (I am)     | Connections to literacy/numeracy standards | none                                   | Mathematical practices                       |     |

# Your job (15 min):

- **Choose another subject area:**
  - **Choose a subject area and find the pattern of the curricular model**
    - **Look for the learning standard and how it is situated within big ideas and sub-standards**
  - **What are the:**
    - **Big ideas called**
    - **Knowledge goals called**
    - **Skill goals called**
  - **Are their competencies?**

# Backwards Design Planning

|  |  |                                  |                           |
|--|--|----------------------------------|---------------------------|
| <b>Grade:</b>                            | <b>Subject Area: Science</b>   | <b>Title:</b>                    |                           |
| <b>Performance Expectation</b>           | <b>Unit Guiding Question(s):</b><br><b>Teacher provocations:</b>           |                                  | <b>Student generated:</b> |
| <b>Key Vocabulary:</b>                   |  |                                  |                           |
| <b>Learning Goals</b>                    | <b>Curricular Language</b><br><b>What do Students need to Know and Do?</b> | <b>Student Friendly Language</b> |                           |
| <b>Science and Engineering Practices</b> |  |                                  |                           |
| <b>Disciplinary Core Ideas</b>           |  |                                  |                           |
| <b>Crosscutting Concepts</b>             |  |                                  |                           |

# Backwards Design Planning (FCS)

| Grade:                  | Subject Area   | Area of Study                                      |                    |
|-------------------------|--|--|--------------------|
| Comprehensive Standard: |  | Unit Guiding Question(s):<br>Teacher provocations: | Student generated: |
| Content Vocabulary:     |  | Skill Vocabulary                                   |                    |
| Unit Goals              | Curricular Language<br>What do Students need to Know and Do? | Student Friendly Language                          |                    |
| Content Standard        |  |  |                    |
| Competencies            |  |  |                    |

| Grade: 9  | Subject Area: Science  | Strand/Topic:  |
|---|--|--|
| <b>Learning Standard:</b> HS-LS1-1. Construct an explanation based on evidence for how the <b>structure of DNA</b> determines the <b>structure of proteins</b> which carry out the <b>essential functions of life</b> through <b>systems of specialized cells</b> |  | <b>Unit Guiding Question(s):</b><br><b>What is the structure of DNA? What is DNA? What does DNA look like? What does DNA do?</b><br><b>How are the structures of DNA and the structures of proteins related?</b><br><b>How can I use evidence to explain how the structure of DNA impacts that structure of proteins?</b><br><b>How are the structure of proteins and related to the essential functions of life?</b><br><b>What is the role the systems of specialized cells?</b> |
| <b>Key Vocabulary:</b> theories and laws, evidence, natural world, <b>structure of DNA, DNA, proteins, essential functions of life, life, systems of specialized cells, organisms</b>   |  |  |
| Learning Goals  | Curricular Language<br>What do Students need to Know and Do?   | Student Friendly Language  |
| <b>Science and Engineering Practices (skills)</b>   | Construct an explanation based on valid and reliable <b>evidence</b> obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that <b>theories and laws</b> that <b>describe the natural world</b> operate today as they did in the <b>past, present, future</b> .   | I can explain using <b>evidence</b> that there are <b>theories and laws</b> that describe the <b>natural world</b><br><br>- I know what <b>evidence</b> is<br>- I know what science and <b>theories and laws*</b> are<br>- I know what the <b>natural world</b> is   |
| <b>Disciplinary Core Ideas (knowledge)</b>  | Disciplinary Core Ideas<br>LS1.A: Structure and Function<br><br>☐ <b>Systems of specialized cells</b> within <b>organisms</b> help them perform the <b>essential functions of life</b> .<br><br>☐ All <b>cells</b> contain <b>genetic information</b> in the form of <b>DNA molecules</b> . <b>Genes</b> are regions in the <b>DNA</b> that contain the instructions that code for the formation of <b>proteins</b> , which carry out most of the <b>work of cells</b> . | I know that the <b>systems of specialized cells</b> inside <b>organisms</b> perform <b>essential functions of life</b><br>• I know what <b>systems of specialized cells</b> are<br>• I know what <b>organisms</b> are<br>• I know what the <b>essential* functions of life</b> are<br><br>I know that cells have genetic information in DNA molecules<br>I know that genes are parts of DNA that are instructions for how proteins are formed<br>I know how cells work             |
| <b>Crosscutting Concepts (Big Idea)</b>   | Structure and Function<br>☐ Investigating or designing new systems or <b>structures</b> requires a detailed examination of the <b>properties</b> of different <b>materials</b> , the structures of different <b>components</b> , and <b>connections</b> of components to reveal its function and/or <b>solve a problem</b> .   | I understand that structures are made of many different components that are connected and have specific functions.   |



# Backwards Design Planning (FCS)

| <b>Grade: 9-12</b>  | <b>Subject Area: FCS</b>  | <b>Area of Study: Food Science, Dietetics, and Nutrition</b>   |                           |
|---|---|--|---------------------------|
| <b>Comprehensive Standard:</b> Integrate knowledge, skills, practices required for careers in food science, food technology, dietetics, and nutrition.  |   | <b>Unit Guiding Question(s):</b><br><b>Teacher provocations:</b> What does it mean to be food safe and why is it important now and in the future?  | <b>Student generated:</b> |
| <b>Vocabulary to know and use:</b> risk, manage risk, food safety, food testing, sanitation, food borne illness, industry standards, documenting, investigating, reporting, HACCP, personal health and hygiene, workplace health and hygiene, receive, store, prepare, raw food, prepared food. |   |  |                           |
| <b>Unit Goals</b>   | <b>Curricular Language<br/>What do Students need to Know and Do?</b>  | <b>Student Friendly Language</b>   |                           |
| <b>Content Standard</b>   | 9.2 Apply risk management procedures to food safety, food testing, and sanitation.  | I know how to <b>manage risk</b> in <b>food safety, food testing</b> and <b>sanitation</b>   |                           |
| <b>Competencies</b>   | 9.2.1 Analyze factors that contribute to food borne illness. Analyze food service management safety and sanitation programs.                                    | I can find out what factors lead to <b>food borne illness</b> and what <b>food safety</b> and <b>sanitation</b> could be done to prevent it  |                           |
| <b>Competencies</b>   | 9.2.2 Implement industry standards for documenting, investigating, and reporting foodborne illnesses.   | I can follow the <b>industry standards</b> for keeping track of ( <b>documenting</b> ), problem solving ( <b>investigating</b> ) and communicating ( <b>reporting</b> ) about <b>foodborne illness</b> |                           |
| <b>Competencies</b>   | 9.2.3 Use the Hazard Analysis Critical Control Point (HACCP) during all food handling processes (the flow of food) to minimize the risks of food borne illness. | I can use the <b>HACCP</b> when handling food to decrease the <b>risks</b> of <b>food borne illness</b>  |                           |
| <b>Competencies</b>   | 9.2.4 Demonstrate practices and procedures that assure personal and workplace health and hygiene.   | I can show <b>personal</b> and <b>workplace health</b> and <b>hygiene</b>  |                           |
| <b>Competencies</b>   | 9.2.5 Demonstrate standard procedures for receiving, storage, and preparation of raw and prepared foods.  | I can show how to <b>receive, store</b> and <b>prepare raw and prepared food</b>   |                           |

| <b>Grade:</b>             |  | <b>Subject Area:</b>   | <b>Strand/Topic:</b> |
|---------------------------|--|--|----------------------|
| <b>Learning Standard:</b> |  | <b>Unit Guiding Question(s):</b>   |                      |
| <b>Key Vocabulary:</b>    |  |  |                      |
| <b>Sub Standards</b>      | <b>Curricular Language<br/>What do Students need to Know and Do?</b> | <b>Student Friendly Language<br/>What do Students need to Know and Do?</b> |                      |
|                           |  |  |                      |
|                           |  |  |                      |
|                           |  |  |                      |
|                           |  |  |                      |
|                           |  |  |                      |

What grade level curriculum are we using?  
What are the learning standards?

## CURRICULUM & ASSESSMENT DESIGN

Student choice of challenge  
Adjustable Curriculum

Student choice of evidence  
Adjustable Assessment

# Students

Who are the pilots?  
What are their dimensions?  
Where is their agency?

Adjustable Supports & Strategies  
Student choice of tools and actions

## NEEDS BASED DESIGN

What are the student needs?  
What barriers are getting in the way?  
What do student require to navigate needs & barriers?

## INSTRUCTIONAL DESIGN

How will students show growth within the learning standard?  
How do we know?

What grade level curriculum are we using?  
What are the learning standards?

## CURRICULUM & ASSESSMENT DESIGN

Student choice of challenge  
Adjustable Curriculum

Student choice of evidence  
Adjustable Assessment

# Students

Who are the pilots?  
What are their dimensions?  
Where is their agency?

Adjustable Supports & Strategies  
Student choice of tools and actions

## NEEDS BASED DESIGN

What are the student needs?  
What barriers are getting in the way?  
What do student require to navigate needs & barriers?

## INSTRUCTIONAL DESIGN

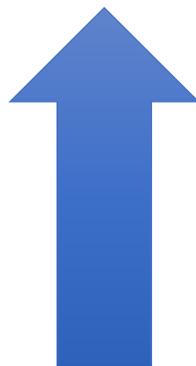
How will students show growth within the learning standard?  
How do we know?

# Additive and Asset-Based Learning Continuums

- Differentiated curriculum
- Shifts from “benchmark” to “window” of proficiency
- Task Neutral
- Same entry point for all/ multiple exit points
- Start from access, add on challenge
- Different from a rubric

# Rubrics vs. Learning Continuum

|                               | deficit | deficit | Most complex description |
|-------------------------------|---------|---------|--------------------------|
| Grade Level Learning Standard |         |         |                          |



# THE SCRUMPTIOUS RUBRIC REFERENCE

## BARELY HANGING ON



The customer wants a refund. Bread alone is not a sandwich. It's like you gave the bread and pop out just to show you were listening.

**Translation:** You only did the small stuff to suffice turning it in. The artwork is missing all important details and signs of understanding or perseverance.

## NEEDS SOME UMPH



Your sandwich disappoints the customer. There's no flavor and not enough meat, if any at all. About the only thing great is the Citrus Drop.

**Translation:** You are missing important details within your artwork. Expectations are not met. Improvement is needed and lack of understanding is present.

## GETS THE POINT



Your sandwich met expectations. It has flavor but nothing too exciting. You included the meat but gee, a side of chips would be nice.

**Translation:** Your artwork meets expectations, you went as far as the requirements expected and you used what knowledge you had to do so.

## RIGHT ON!



Your sandwich went beyond expectations. You threw in some extra flavor and tomatoes and surprised the customer with a side of chips.

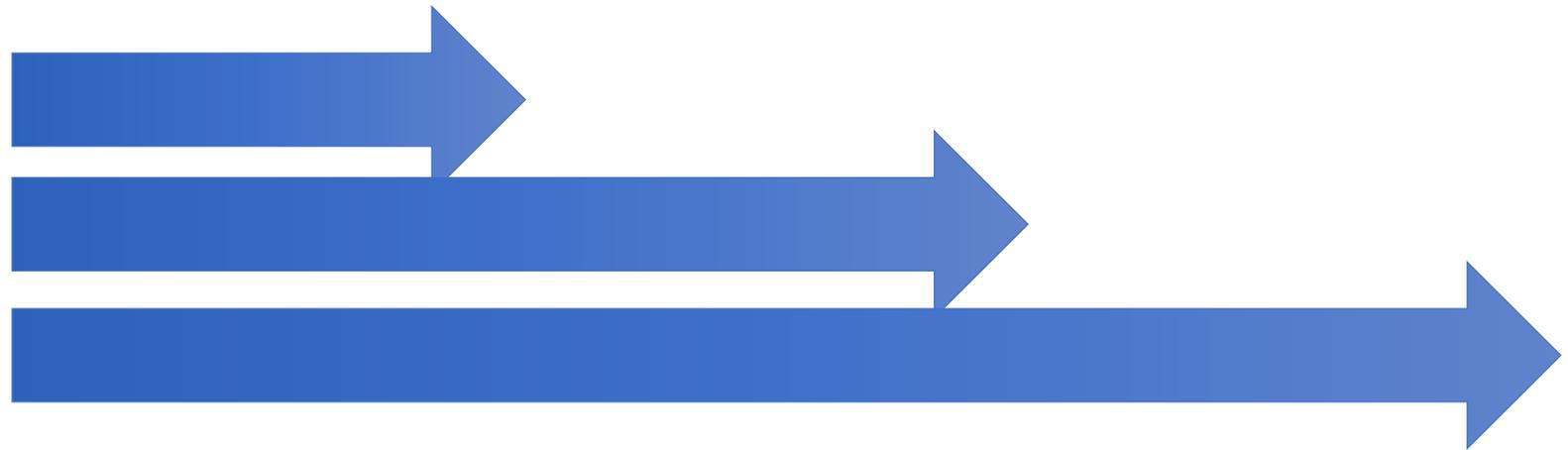
**Translation:** Your artwork exceeds all expectations; you used creativity, went beyond the basic requirements and showed obvious understanding.

[WWW.FIVEMOOREMINUTES.COM](http://WWW.FIVEMOOREMINUTES.COM)

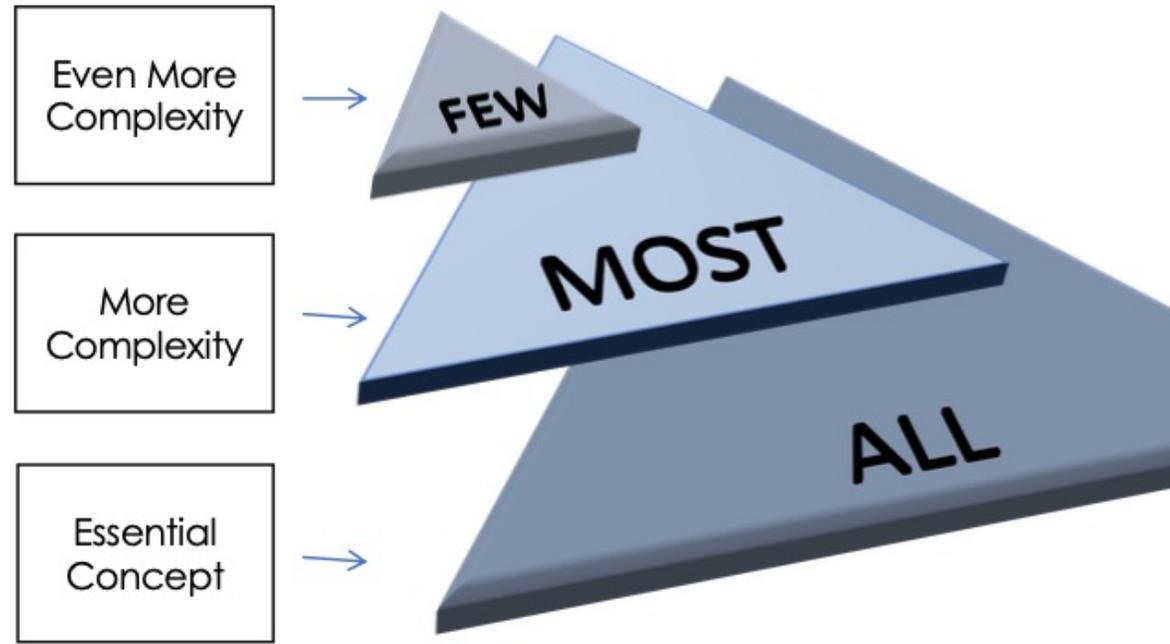
Inclusive Education: It's not more work, it's different work!

# Rubrics vs. Learning Continuum

|                               | Essential | More complex | More complex |
|-------------------------------|-----------|--------------|--------------|
| Grade Level Learning Standard |           |              |              |



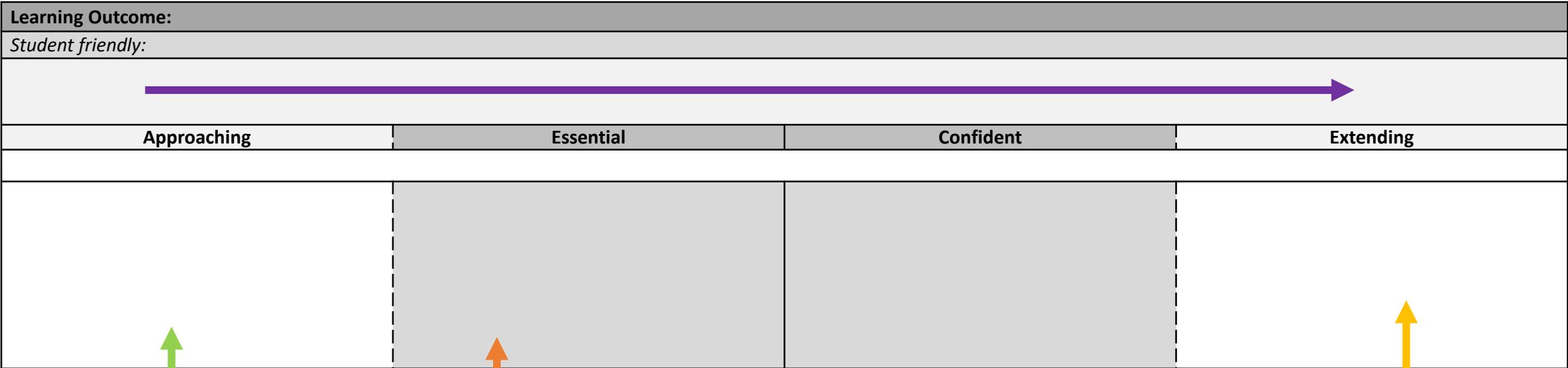
# The Planning Pyramid: Differentiated Curriculum



Start from access, build on challenge

# Learning Continuums

1. Choose a Learning Standard and translate it into student friendly language



2. Start with determining the **most essential concept** of the standard and then **add on complexity**

3. Extend the grade level standard to include an **access point** and **challenge point**

| Grade: 9  | Subject Area: Science  | Strand/Topic:  |
|---|--|--|
| <b>Learning Standard:</b> HS-LS1-1. Construct an explanation based on evidence for how the <b>structure of DNA</b> determines the <b>structure of proteins</b> which carry out the <b>essential functions</b> of life through <b>systems of specialized cells</b> |  | <b>Unit Guiding Question(s):</b><br><b>What is the structure of DNA? What is DNA? What does DNA look like? What does DNA do?</b><br><b>How are the structures of DNA and the structures of proteins related?</b><br><b>How can I use evidence to explain how the structure of DNA impacts that structure of proteins?</b><br><b>How are the structure of proteins and related to the essential functions of life?</b><br><b>What is the role the systems of specialized cells?</b>   |
| <b>Key Vocabulary:</b> theories and laws, evidence, natural world, <b>structure of DNA, DNA, proteins, essential functions of life, life, systems of specialized cells, organisms</b>   |  |  |
| Learning Goals  | Curricular Language<br>What do Students need to Know and Do?   | Student Friendly Language  |
| <b>Science and Engineering Practices (skills)</b>   | Construct an explanation based on valid and reliable <b>evidence</b> obtained from a variety of sources (including students' own investigations, models, theories, simulations, peer review) and the assumption that <b>theories and laws</b> that <b>describe the natural world</b> operate today as they did in the <b>past , present, future.</b>   | I can explain using <b>evidence</b> that there are <b>theories and laws</b> that describe the <b>natural world</b> <ul style="list-style-type: none"> <li>- I know what <b>evidence</b> is</li> <li>- I know what science and <b>theories and laws*</b> are</li> <li>- I know what the <b>natural world</b> is</li> </ul>  |
| <b>Disciplinary Core Ideas (knowledge)</b>  | Disciplinary Core Ideas<br>LS1.A: Structure and Function<br><br>☐ <b>Systems of specialized cells</b> within <b>organisms</b> help them perform the <b>essential functions of life.</b><br><br>☐ All <b>cells</b> contain <b>genetic information</b> in the form of <b>DNA molecules. Genes</b> are regions in the <b>DNA</b> that contain the instructions that code for the formation of <b>proteins</b> , which carry out most of the <b>work of cells.</b> | I know that the <b>systems of specialized cells</b> inside <b>organisms</b> perform <b>essential functions of life</b> <ul style="list-style-type: none"> <li>• I know what <b>systems of specialized cells</b> are</li> <li>• I know what <b>organisms</b> are</li> <li>• I know what the <b>essential* functions of life</b> are</li> </ul> I know that cells have genetic information in DNA molecules<br>I know that genes are parts of DNA that are instructions for how proteins are formed<br>I know how cells work |
| <b>Crosscutting Concepts (Big Idea)</b>   | Structure and Function<br>☐ Investigating or designing new systems or <b>structures</b> requires a detailed examination of the <b>properties</b> of different <b>materials</b> , the structures of different <b>components</b> , and <b>connections</b> of components to reveal its function and/or <b>solve a problem.</b>  | I understand that structures are made of many different components that are connected and have specific functions.   |

| Next Generation Science Standards (NGSS)  |  |          |
|---|--|----------|
| Subject Area: Science   | Strand: Structure of DNA   | Grade: 9 |
| <b>Performance Expectation:</b> HS-LS1-1. Construct an explanation based on evidence for how the structure of DNA determines the structure of proteins which carry out the essential functions of life through systems of specialized cells | <b>Guiding Unit Question:</b><br>What is the structure of DNA? What is DNA? What does DNA look like? What does DNA do?<br>How are the structures of DNA and the structures of proteins related?<br>How can I use evidence to explain how the structure of DNA impacts that structure of proteins?<br>How are the structure of proteins and related to the essential functions of life?<br>What is the role the systems of specialized cells? |          |
| <b>Unit Vocabulary:</b> theories and laws, evidence, natural world, structure of DNA, DNA, proteins, essential functions of life, life, systems of specialized cells, organisms   |  |          |



| Foundations  | Student Friendly Language   | Access Point   | Essential   | Confident  | Extend   |
|--|---|--|---|--|--|
| <b>Science &amp; Engineering Practices (skill)</b> | I can explain using evidence that there are theories and laws that describe the natural world   | I know what a theory is<br>I know what a law is<br>I know what evidence is<br>I know what the natural world is | I know the difference between scientific theories and laws<br><br>I can explain how scientific theories and laws are used to make predictions about the natural world   | I know examples of scientific theories and laws<br><br>I can explain the role of evidence and how it supports scientific theories and laws   | I know how scientific theories and laws are developed<br><br>I can explain the limitations of specific scientific theories and laws  |
| <b>Disciplinary Core Ideas (knowledge)</b>         | I know that the systems of specialized cells inside organisms perform essential functions of life<br>I know that cells have genetic information in DNA molecules<br>I know that genes are parts of DNA that are instructions for how proteins are formed<br>I know how cells work | I know what a cell is<br>I know the structure of a cell<br>I know what I need to live                          | I know the major organ systems in the human body and the key functions they perform<br><br>I know the basic structure and function of common cell types/ how cells work<br><br>I know the role of DNA, genes and proteins in the structure and functions of cells | I know what cellular specialization is and how different cell types are adapted to carry out specific roles<br><br>I know how the specialized structures and mechanisms of different cell types, including DNA, genes and proteins, enable them to perform their roles | I know how multicellular organisms rely on coordinated systems of specialized cells to sustain life<br><br>I know how evolutionary adaptations have led to the development of specialized cell types and organ systems |
| <b>Crosscutting Concepts (understanding)</b>       | I understand that structures are made of many different components that are connected and have specific functions.  | I understand that there are different kinds of structures in my life and the world                             | I understand that structures have many components or individual parts that combine to form a larger structure   | I understand that components in structures are interconnected and interdependence to support the overall function of a structure   | I understand that each component in a larger structure has specific roles and functions  |

# Backwards Design Planning (FCS)

| Grade: 9-12   | Subject Area: FCS   | Area of Study: Food Science, Dietetics, and Nutrition  |                           |
|---|---|--|---------------------------|
| <b>Comprehensive Standard:</b> Integrate knowledge, skills, practices required for careers in food science, food technology, dietetics, and nutrition.  |   | <b>Unit Guiding Question(s):</b><br><b>Teacher provocations:</b> What does it mean to be food safe and why is it important now and in the future?  | <b>Student generated:</b> |
| <b>Vocabulary to know and use:</b> risk, manage risk, food safety, food testing, sanitation, food borne illness, industry standards, documenting, investigating, reporting, HACCP, personal health and hygiene, workplace health and hygiene, receive, store, prepare, raw food, prepared food. |   |  |                           |
| Unit Goals  | Curricular Language<br>What do Students need to Know and Do?  | Student Friendly Language  |                           |
| <b>Content Standard</b>   | 9.2 Apply risk management procedures to food safety, food testing, and sanitation.  | I know how to <b>manage risk</b> in <b>food safety, food testing</b> and <b>sanitation</b>   |                           |
| <b>Competencies</b>   | 9.2.1 Analyze factors that contribute to food borne illness. Analyze food service management safety and sanitation programs.                                    | I can find out what factors lead to <b>food borne illness</b> and what <b>food safety</b> and <b>sanitation</b> could be done to prevent it  |                           |
| <b>Competencies</b>   | 9.2.2 Implement industry standards for documenting, investigating, and reporting foodborne illnesses.   | I can follow the <b>industry standards</b> for keeping track of ( <b>documenting</b> ), problem solving ( <b>investigating</b> ) and communicating ( <b>reporting</b> ) about <b>foodborne illness</b> |                           |
| <b>Competencies</b>   | 9.2.3 Use the Hazard Analysis Critical Control Point (HACCP) during all food handling processes (the flow of food) to minimize the risks of food borne illness. | I can use the <b>HACCP</b> when handling food to decrease the <b>risks</b> of <b>food borne illness</b>  |                           |
| <b>Competencies</b>   | 9.2.4 Demonstrate practices and procedures that assure personal and workplace health and hygiene.   | I can show <b>personal</b> and <b>workplace health</b> and <b>hygiene</b>  |                           |
| <b>Competencies</b>   | 9.2.5 Demonstrate standard procedures for receiving, storage, and preparation of raw and prepared foods.  | I can show how to <b>receive, store</b> and <b>prepare raw and prepared food</b>   |                           |

| Next Generation Science Standards (NGSS)   |   |                    |
|--|---|--------------------|
| <b>Subject Area: FCS</b>   | <b>Area of Study: Food Science, Dietetics, and Nutrition</b>  | <b>Grade: 9-12</b> |
| <b>Comprehensive Standard: Integrate knowledge, skills, practices required for careers in food science, food technology, dietetics, and nutrition.</b>   | <b>Unit Guiding Question(s):</b><br><b>Teacher provocations:</b> What does it mean to be food safe and why is it important now and in the future? |                    |
| <b>Unit Vocabulary:</b> risk, manage risk, food safety, food testing, sanitation, food borne illness, industry standards, documenting, investigating, reporting, HACCP, personal health and hygiene, workplace health and hygiene, receive, store, prepare, raw food, prepared food. |   |                    |



| Foundations             | Student Friendly Language   | Access Point   | Essential (pass)  | Confident   | Extend   |
|-------------------------|---|--|---|---|--|
| <b>Content Standard</b> | I know how to manage risk in food safety, food testing and sanitation   |  |   |   |  |
| <b>Competencies</b>     | I can find out what factors lead to food borne illness and what food safety and sanitation could be done to prevent it  |  |   |   |  |
| <b>Competencies</b>     | I can follow the industry standards for keeping track of (documenting), problem solving (investigating) and communicating (reporting) about foodborne illness | I know what foodborne illness is<br>I can figure out why food borne illness happened to me | I can explain why it is important to document, investigate and report foodborne illnesses | I can document, investigate and report relevant information incidence of food borne illnesses | I can follow industry specific protocols and guidelines for documenting, investigating and reporting |
| <b>Competencies</b>     | I can use the HACCP when handling food to decrease the risks of food borne illness  |  |   |   |  |
| <b>Competencies</b>     | I can show personal and workplace health and hygiene  |  |   |   |  |
| <b>Competencies</b>     | I can show how to receive, store and prepare raw and prepared food  |  |   |   |  |

What grade level curriculum are we using?  
What are the learning standards?

# CURRICULUM & ASSESSMENT DESIGN

Student choice of challenge  
Adjustable Curriculum

Student choice of evidence  
Adjustable Assessment

# Students

Who are the pilots?  
What are their dimensions?  
Where is their agency?

# NEEDS BASED DESIGN

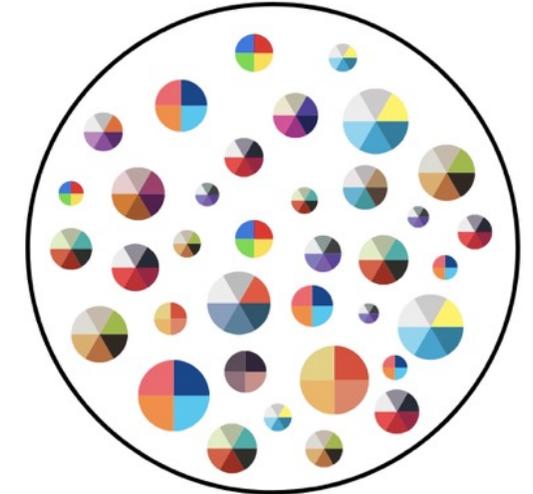
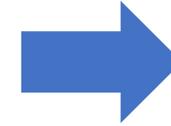
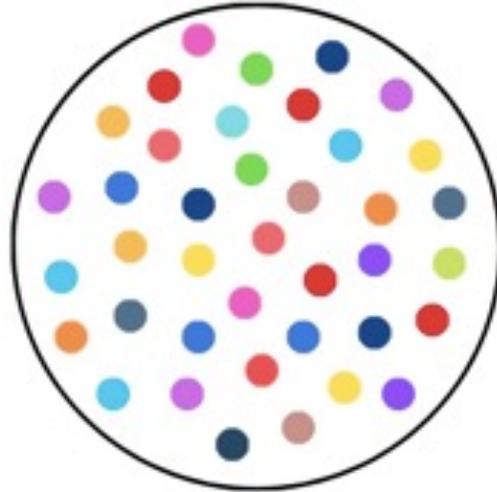
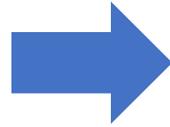
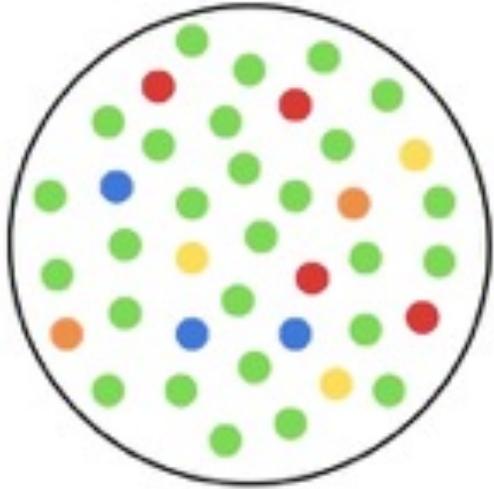
What are the student needs?  
What barriers are getting in the way?  
What do student require to navigate needs & barriers?

Adjustable Supports & Strategies  
Student choice of tools and actions

# INSTRUCTIONAL DESIGN

How will students show growth within the learning standard?  
How do we know?

# WHAT IS *inclusion*?



*Including*  
'special needs' students  
into general education  
classrooms

Teaching and designing for  
*diversity*  
(that includes Disability)

Creating space for  
students to feel confident  
and safe to *identify*?  
(that includes students  
who are Disabled)



**What is one useful idea?**

**What is one question you have?**

**What is one thing you learned?**

**What is one thing you want to want to share with  
someone who is not here?**

THANK YOU!

*Shelley*  
**MOORE** PH.D.

**GET IN TOUCH**

Email: [bookings@drshelleymoore.com](mailto:bookings@drshelleymoore.com)

**LEARN MORE**

Web: [www.drshelleymoore.com](http://www.drshelleymoore.com)

