

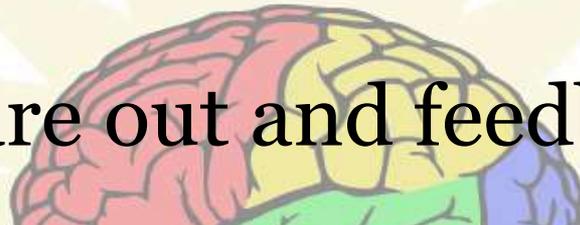
# A Practical Guide for Aligning Existing Materials to the NGSS

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# Timeline

- Introduction (5 min)
  - Project NEURON
  - The EQuIP rubric
- Step 1: Review materials
  - Presented unit/lesson overview
  - Review materials: rubric, lesson materials, NGSS
- Step 2: Apply Category 1 criteria (20 min)
- Step 3: Apply Category 2 & 3 criteria (20 min)
- Debrief: Share out and feedback (10 min)



# What is Project NEURON?

- At the University of Illinois
- Educators, scientists, and graduate students
- Curriculum development
  - Inquiry-based
  - Connect to standards
- Professional development
  - Summer institutes
  - Conferences



# EQuIP: Tool to support implementation

- EQuIP: *Educators Evaluating Quality Instructional Products*
- Developed by Achieve + NSTA involving Framework and NGSS writers
- Analyze curriculum materials – individual lessons, sequences of lessons, units
- Evaluate – how well do the materials help achieve the important conceptual shifts in NGSS?





*The EQulP Rubric*

Step 1: Review Materials

Step 2: Apply Category 1 Criteria



# Categories of EQuIP (p. 4)

<b>I. Alignment to the NGSS</b>	<b>II. Instructional Supports</b>	<b>III. Monitoring student progress</b>
<p><i>A. Three dimensional:</i> Supports students in three dimensional learning to explain phenomena or design solutions</p>	<p>A-E. Supports learning for all students through meaningful scenarios, supporting practices, supports phenomena and representations</p>	<p>A-D. Assessments evaluate three-dimensional learning; include formative; are accessible and unbiased</p>
<p><i>B, C, D. Coherence:</i> Lessons fit together coherently, develops connections</p>	<p>F, G: Provides guidance for teachers to build coherence across the unit</p>	<p>E, F. Pre, formative, and summative aligned to three-dimensional learning</p>

# Step 1 – Review Materials

Become familiar with the **rubric**, the **lesson or unit**, and the **practices, disciplinary core ideas, and crosscutting concepts targeted in the lesson.**

## **1. Review the rubric**

1. Record the grade and title of the lesson or unit

## **2. Scan to see:**

1. What the lesson or unit contains
2. What dimension components are targeted: Examine the Performance Expectations in handout
3. How it is organized

## **3. Read key materials**

**(We will combine Steps 1 & 2 today)**



## Step 2 – Apply Criteria in Category I: Alignment to the NGSS

Examine lesson through the “lens” of each criterion

### **1. Individually,**

1. check each criterion for which *clear and substantial* evidence is found and
2. record the evidence and your reasoning

### **2. As a team, discuss**

1. criteria for which clear and substantial evidence is found and
2. criterion-based suggestions for specific improvements that might be needed to meet criteria

**20 minutes – Steps 1 and 2 (p. 2)**

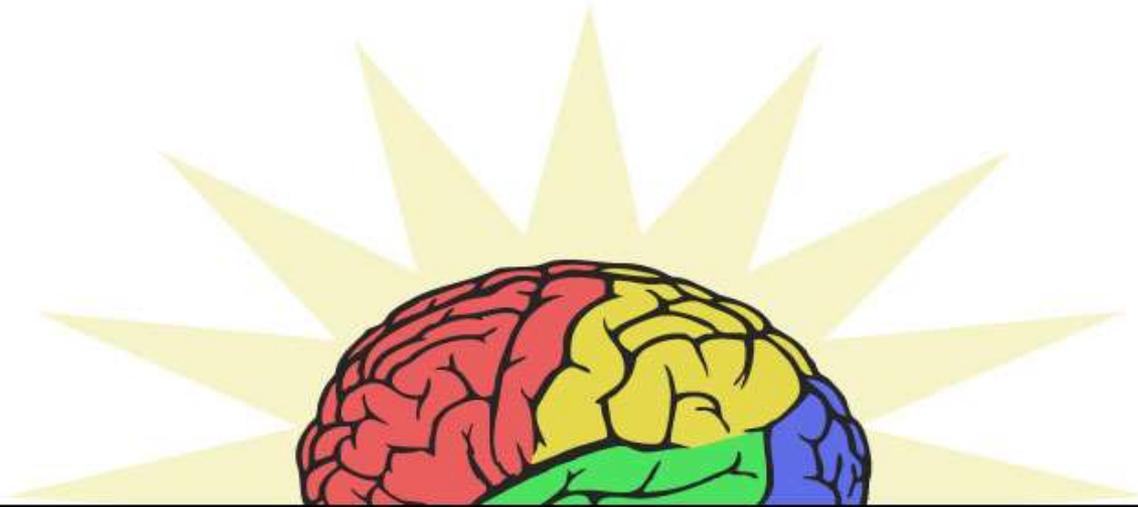


# Stop and Ask...

- **Is this lesson aligned enough to the NGSS to warrant further examination?**

*“If the lesson or unit is not closely aligned to the Next Generation Science Standards, it may not be appropriate to move on to the second and third categories. Professional judgment should be used when weighing the individual criterion.”*





*The EQulP Rubric*

## Step 3: Apply Category 2 & 3 Criteria

## Step 3 – Apply Criteria in Categories II & III: Instructional Supports and Monitoring Student Progress

Examine the lesson through the “lens” of each criterion in the 2<sup>nd</sup> & 3<sup>rd</sup> categories

### **1. Individually,**

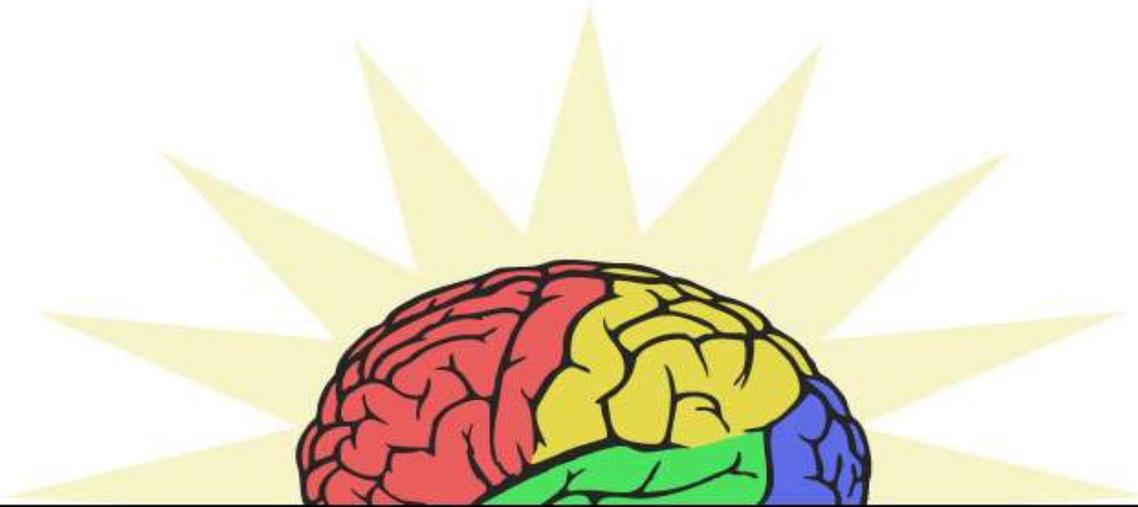
1. check each criterion on the response form for which clear and substantial evidence is found and
2. record the evidence and reasoning

### **2. As a team, discuss**

1. criteria for which clear and substantial evidence is found
2. criterion-based suggestions for specific improvements that might be needed to meet criteria.

**20 minutes**



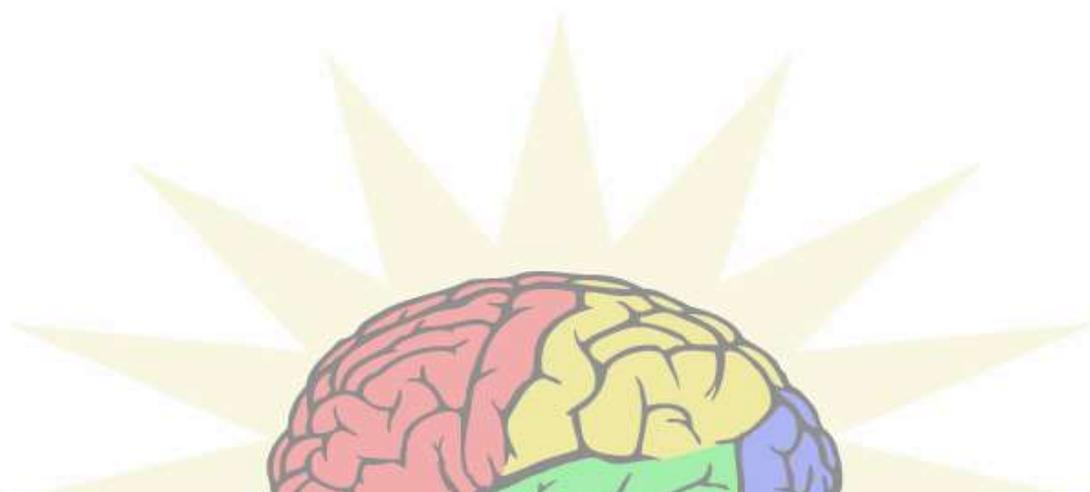


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# Share-out and Debrief

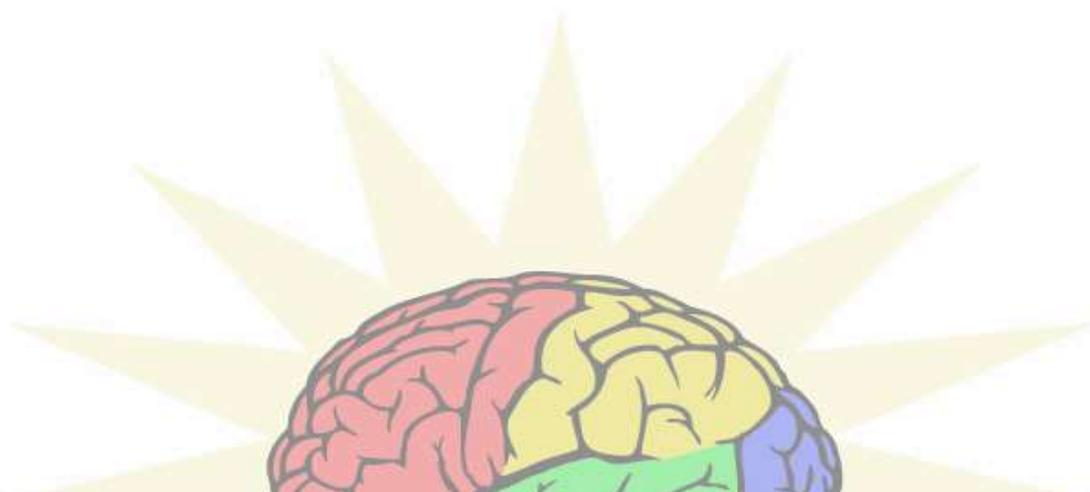
# Share out

- To which aspect(s) of each dimension did the lesson most closely align?
- If you could suggest only one improvement (the best of several your group discussed), what would it be?



# More questions

- Do you feel like you have a better understanding of the EQuIP rubric than when you started?
- Do you have a curriculum on which you'd like to try using the EQuIP rubric?



# Acknowledgements

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