REDWOOD COAST PROFESSIONAL LEARNING INITIATIVE

Welcome!

Please sit with your school teams; Two school teams to a table.

WELCOME/INTRODUCTIONS/OVERVIEW

Chris Hopper * Dina McDonald * Dale Oliver * Mary Dingle * Kenny Richards * Brad Ballinger *Jack Bareilles * Beth Eschenbach *Jeff Northern

WE ARE 20 SCHOOLS FROM HUMBOLDT COUNTY AND DEL NORTE COUNTY

Alice Birney

Ambrosini

Arcata Elementary

Cuddeback

Dows Prairie

Fieldbrook

Grant

Hoopa

Lafeyette

Mary Peacock

Morris

Pacific Union

Pine Grove

Redway

Redwood

Rio Dell

Smith River

South Fortuna

Trinity Valley

Washington

THE BIG IDEA

Improve Learning in Mathematics for Every Child

Through…facilitating/supporting/encouraging School-based teams (TRIOS) of two teacher leaders and the principal to improve mathematics instruction, with a focus on the standards for mathematical practice.

…with 1 to 3 additional teachers/site starting soon!

INSTRUCTION CENTERED ON OUR STUDENTS

Growth Mindset Pedagogy

Integration
(Arts, Sciences, Physical Education, Engineering, Computing)

Teachers as professionals

THE NEXT TWO DAYS ARE ABOUT

- Articulating the VISION for conceptual learning in mathematics that is achieved through teaching for a growth mindset
- Implementing one or more classroom-ready ACTIVITIES at that engages students meaningfully in the mathematical practice standards
- Using TECHNOLOGY (ipads) in one or more distinct ways to support your professional work
- Completing a math improvement PLAN for your school site that will effectively engage your school colleagues in math learning improvement efforts

LET'S START BY DOING SOME (BRIEF) MATHEMATICAL WORK TOGETHER

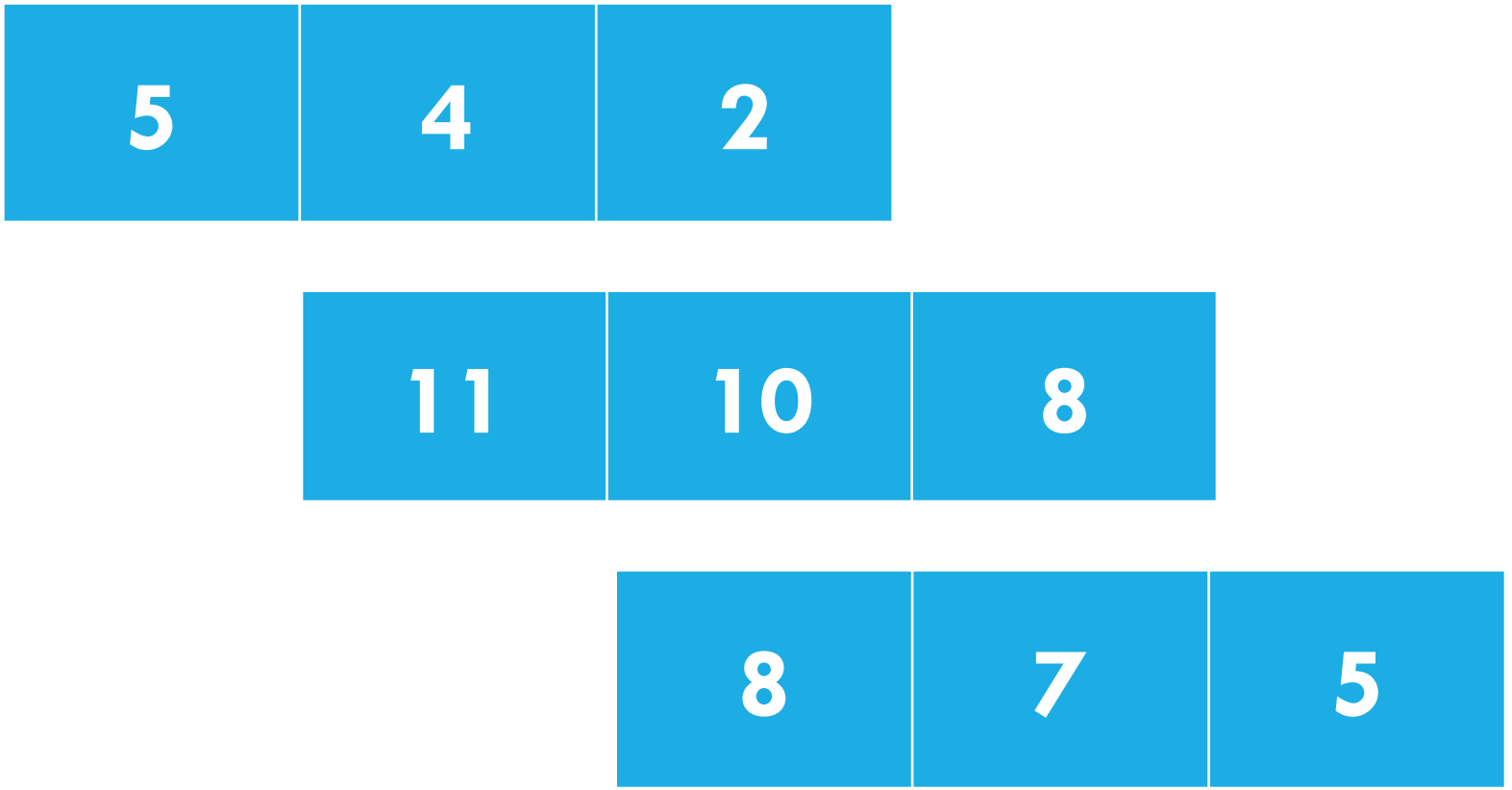
Think about how you are deconstructing, constructing, organizing, thinking, …

THE "SET OF THREE NUMBERS" GAME

In this interactive game, the teacher gives sets of three integers that follow some pre-defined (although hidden) pattern, or "rule." Students make conjectures about the pattern and test their conjectures by proposing other sets of three numbers that also fit the pattern.

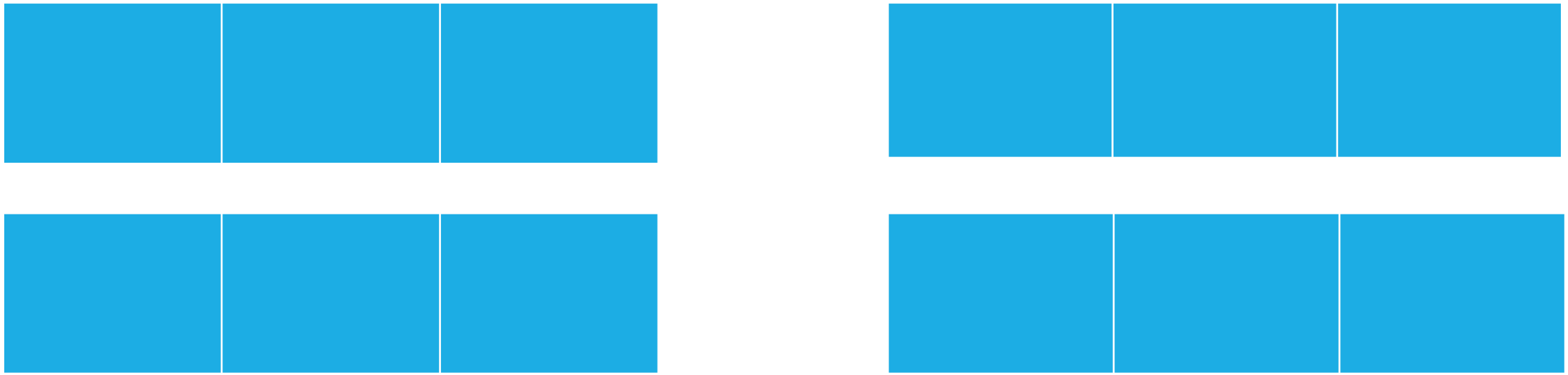
THE "SET OF THREE NUMBERS" GAME

For example, the following sets satisfy the same pattern:



THE "SET OF THREE NUMBERS" GAME

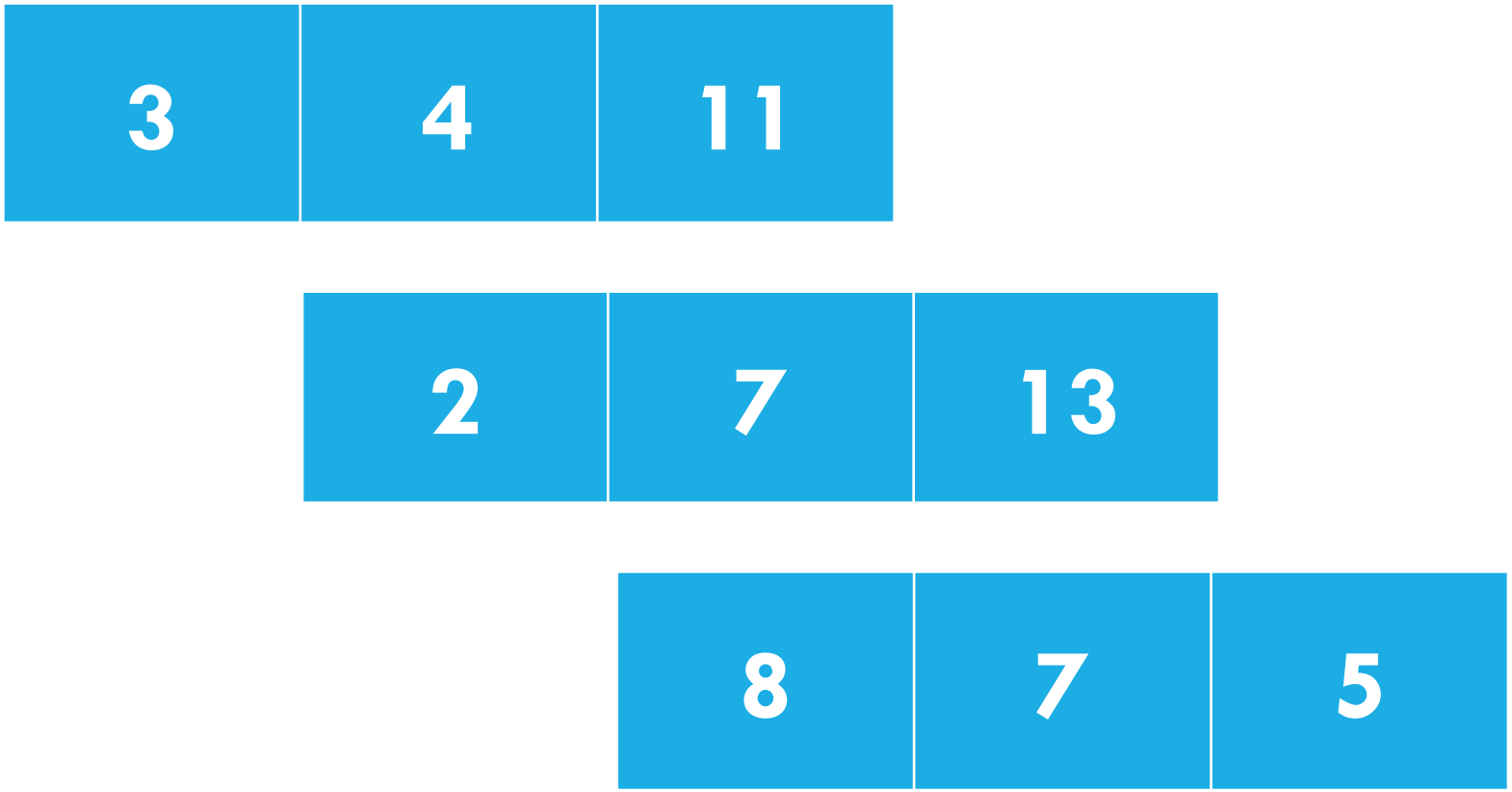
The teacher leads a discussion with the students about which of the proposed sets of three numbers fit the pattern, or rule. (There are many options for the discussion.)



Student are encouraged to provide reasons why a set of three numbers fits or does not fit the pattern.

THE "SET OF THREE NUMBERS" GAME

Another example:



THE "SET OF THREE NUMBERS" GAME

Now students make up games, and play one another's games.

MAKE-UP YOUR OWN EXAMPLE

Use the blue sheet in your folder the create your own example. It may be an example that is challenging at the teacher level, or it may be an example that is appropriate for students in your class.

Once you have made your example, get up and find someone who does not work at your school site. Play one another's "Set of Three Numbers" games.

ENGAGING IN MATHEMATICAL PRACTICES

2: Reason abstractly and quantitatively

7: Look for and make use of structure

8: Look for an express regularity in repeated reasoning

THE 5 C'S OF MATHEMATICS ENGAGEMENT (BOALER)

- Curiosity
- Connection Making
- Challenge
- Creativity
- Collaboration

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