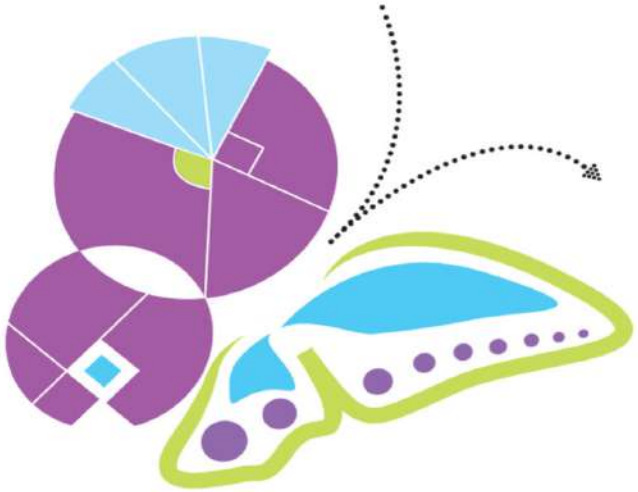

Metamorphosis

TEACHING LEARNING COMMUNITIES

Phone: **347-988-8709**
info@metamorphosistlc.com
www.MetamorphosisTLC.com
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Welcome to Our Session!!

Re-envisioning Early Childhood Routines to Challenge the Reasoning of ALL Learners

www.MetamorphosisTLC.com

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Background Information on

Metamorphosis Teaching Learning Communities

Who We Are: Metamorphosis is

- a well-known provider of **Content Coaching** for teachers, coaches, and administrators.
- a **community of committed educators** and Master Coaches, led by Lucy West and Antonia Cameron, authors of *Agents of Change: How Content Coaching Transforms Teaching and Learning.*
- We are not a ***curriculum*** nor are we a ***mathematics curriculum development company*** or publisher.

DO NOW

Before we start, please think about the three questions below:

1. What routines do you use in your classroom?
2. Why do you use them?
3. How do these routines develop students' mathematical reasoning and ability to communicate their thinking?

Re-envisioning Early Childhood Routines to Challenge the Reasoning of ALL Learners

Learned Something New?
Heard Something Curious?

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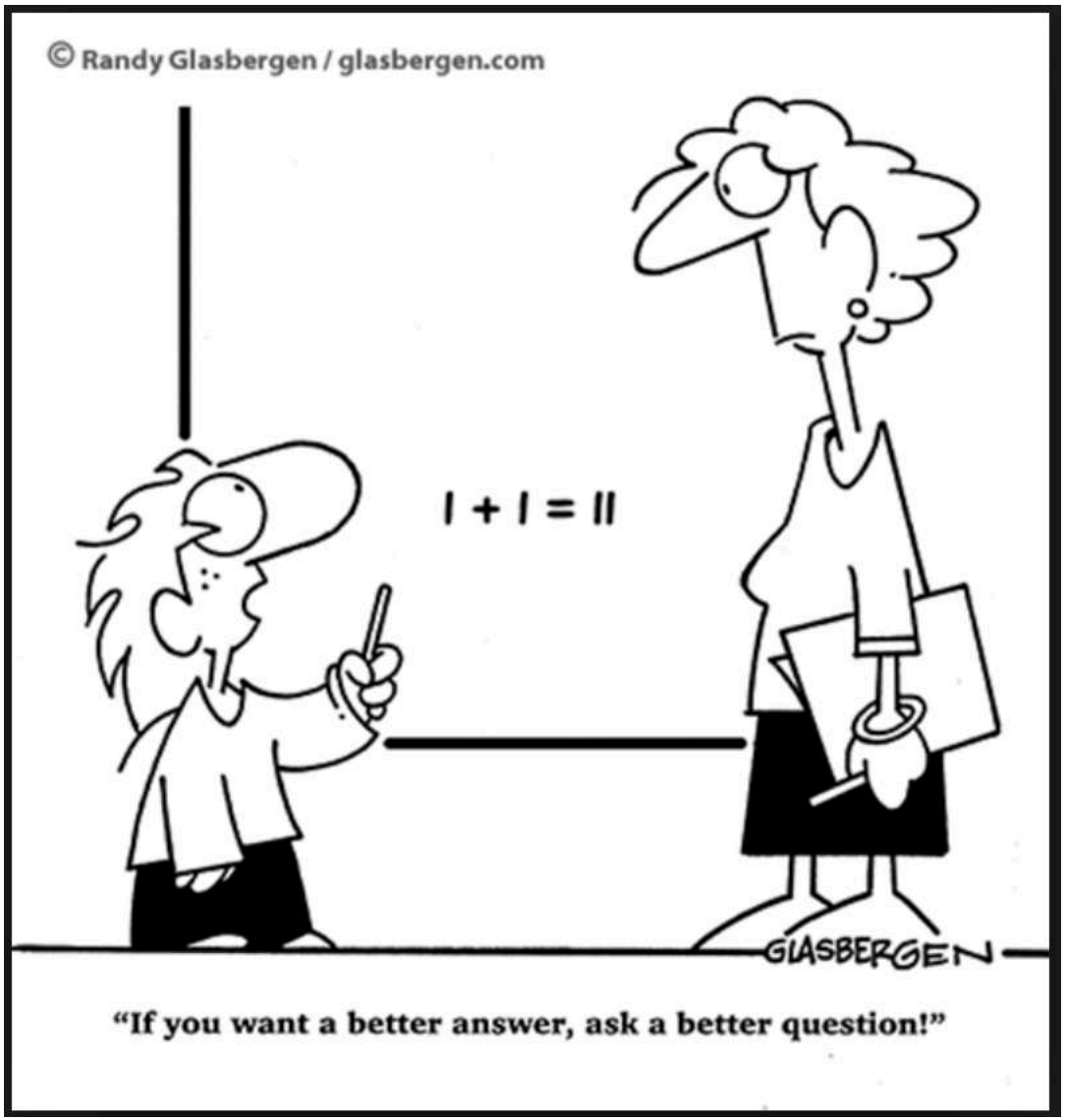
Why do we need to re-envision early childhood routines?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I + I = II
GLASBERGEN
"If you want a better answer, ask a better question!"

How do we create learning cultures in our classrooms where ALL children thrive?

What shapes classroom culture?

There are 8 forces that shape classroom culture:

1. Expectations.
2. Time.
3. Modeling.
4. Routines.
5. Opportunities.
6. Relationships.
7. Physical environment.
8. Language.

(Ritchhart, 2002)
The Cultures of Thinking Project

Why are routines important?

Students views about learning are shaped by their experiences in school.

Routines are critical tools in shaping classroom culture.

Creating a Culture Where Children Can Thrive

There are 8 forces that shape classroom culture:

1. Expectations.
2. Time.
3. Modeling.
4. Routines.
5. Opportunities.
6. Relationships.
7. Physical environment.
8. Language.

(Ritchhart, 2002)
The Cultures of Thinking Project

Four Main Types of Routines

1. Housekeeping Routines
2. Management Routines
3. Learning Routines
4. Discourse Routines

Not All Routines Are Created Equal

1. Housekeeping Routines
2. Management Routines
3. Learning Routines
4. Discourse Routines

Not All Routines Are Created Equal

1. Housekeeping Routines
2. Management Routines
3. Reasoning Routines
4. Discourse Routines

Using Routines to Revitalize Classroom Culture

Thinking or reasoning routines can be used to develop children's

1. Understanding of the big ideas in mathematics
2. Problems solving strategies
3. Habits of mind
4. Communication skills. This includes their ability to
   - *Listen with the intent of understanding*
   - *Speak with precision and clarity*
   - *Pose questions*
   - *Create conjectures*
   - *Justify their thinking.*

Four Early Childhood Reasoning Routines to Transform Classroom Culture

Language	Reasoning	Social-Emotional	Mathematics & Problem Solving

Routine #1

You Say I Say

You Say I Say

Structure of the activity:

1. Sit students in a circle.
2. First person in the game says one word.
3. Second person says, *you say* _____, *I say* _____.
4. Each players takes the word of the previous person and builds on it using the sentence frame *you say* _____, *I say* _____.
5. The game continues until all players have had a turn to speak.

You Say I Say

Words that children used in *You Say I Say* in a kindergarten classroom

spring
bug
wings
fly
clouds
white
cottonball
soft
couch
chair
classroom
reading [books]
characters
learning
children
boys
teacher
girls
math
subtraction
add
class
teacher
girls

Highlights are where the association changes

spring
bug
wings
fly
clouds
white
cottonball
soft
couch
chair
classroom
reading [books]
characters
learning
children
boys
teacher
girls
math
subtraction
add
class
teacher
girls

You Say I Say

Language	Reasoning	Social/Emotional	Mathematical Problem Solving
* repetition of language * precision of language * free association (flow)	* metacognitive skill * classification	* making eye contact * turning to look at the other person * waiting your turn	* slowing down to Understand * building connections * looking for patterns

Routine #2

Describe What You See: *Billboards*

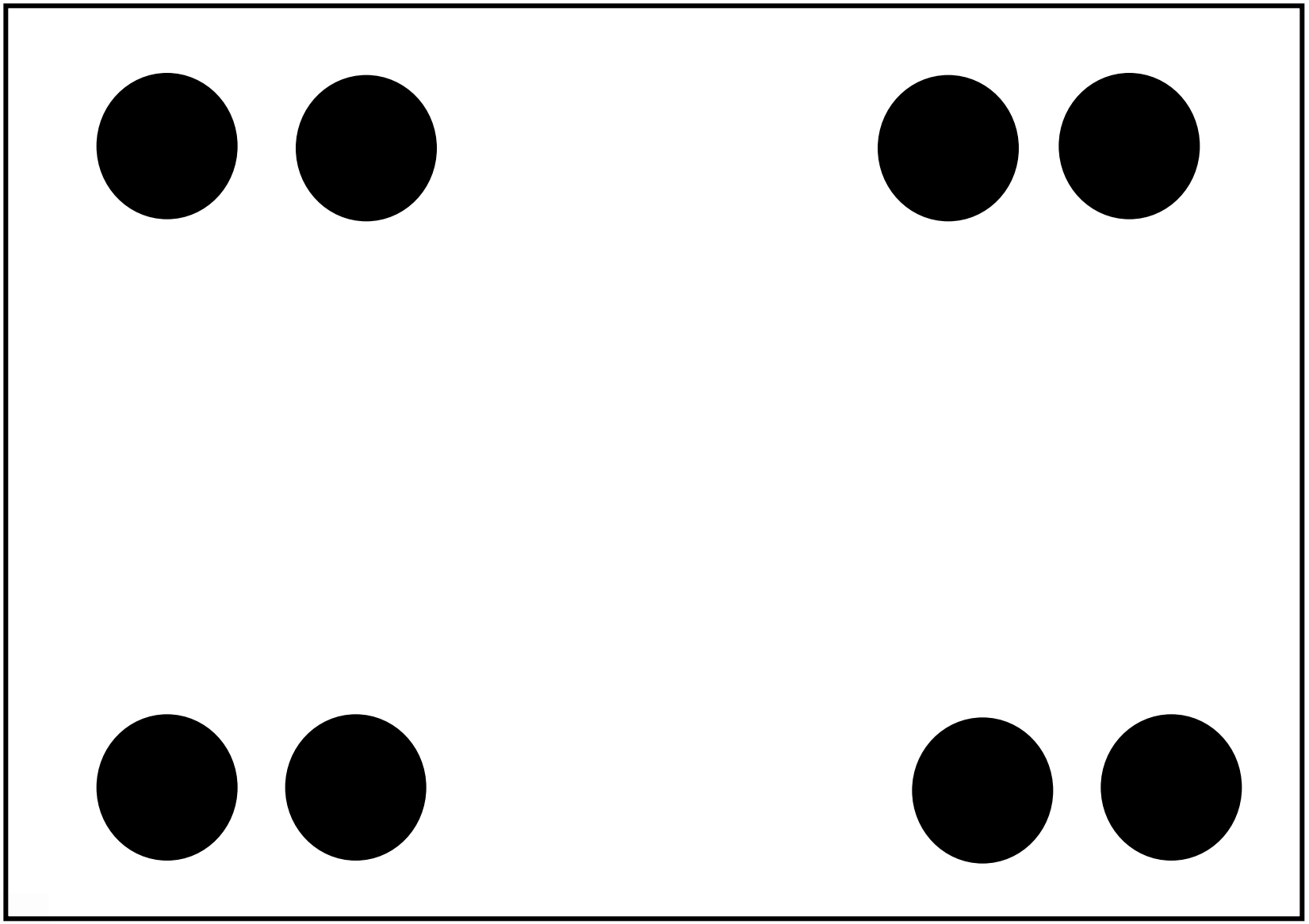
Language	Reasoning	Social-Emotional	Mathematics & Problem Solving

Describe What You See: *Billboards*

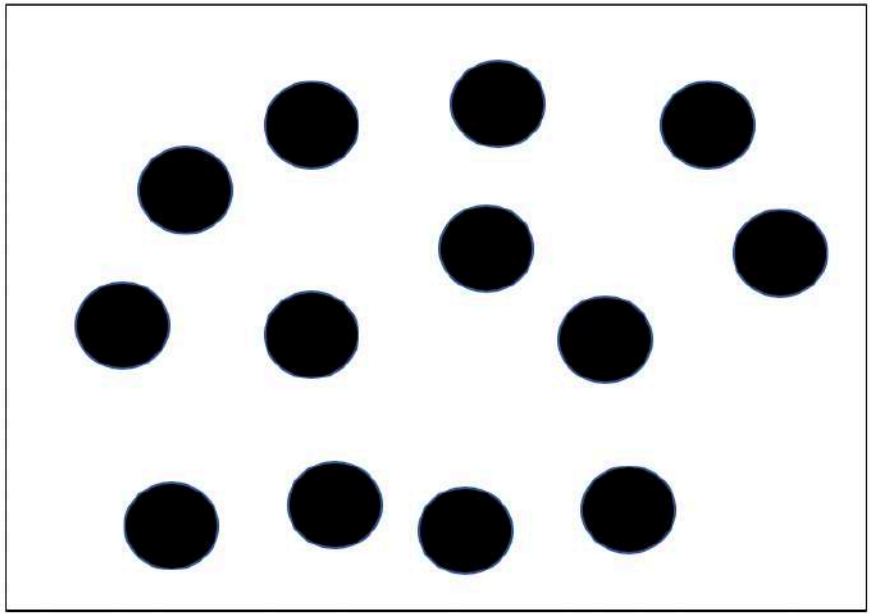
Structure of the activity:

1. Sit students in a circle.
2. Tell the *billboards* story.
3. Show the image quickly.
4. Ask children to describe what they see (describe it in a way that you can *see it too*).
5. Draw what children say in a rectangle to represent the image shown.
6. Once children have shared and precise language around the image has been developed, reshow the image.

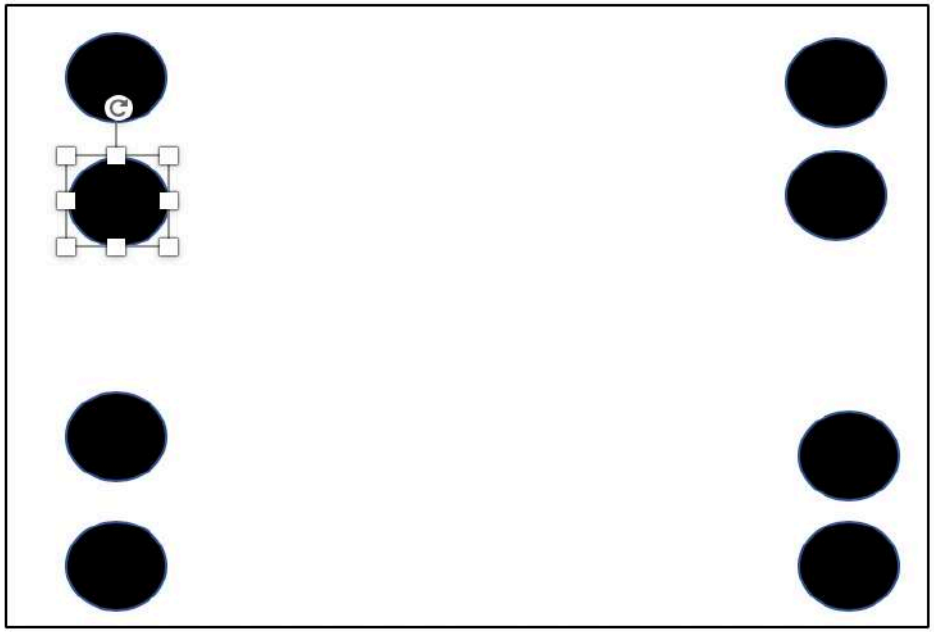
Billboards
A Drive in Florida



- How might children describe what they see?
- How might you *play* with their descriptions to help them develop mathematical language and clear ways of communicating?



Teacher says: *All I heard was dots and that's what I pictured. I'm wondering if you could describe the image in a way so that I could see it too?*

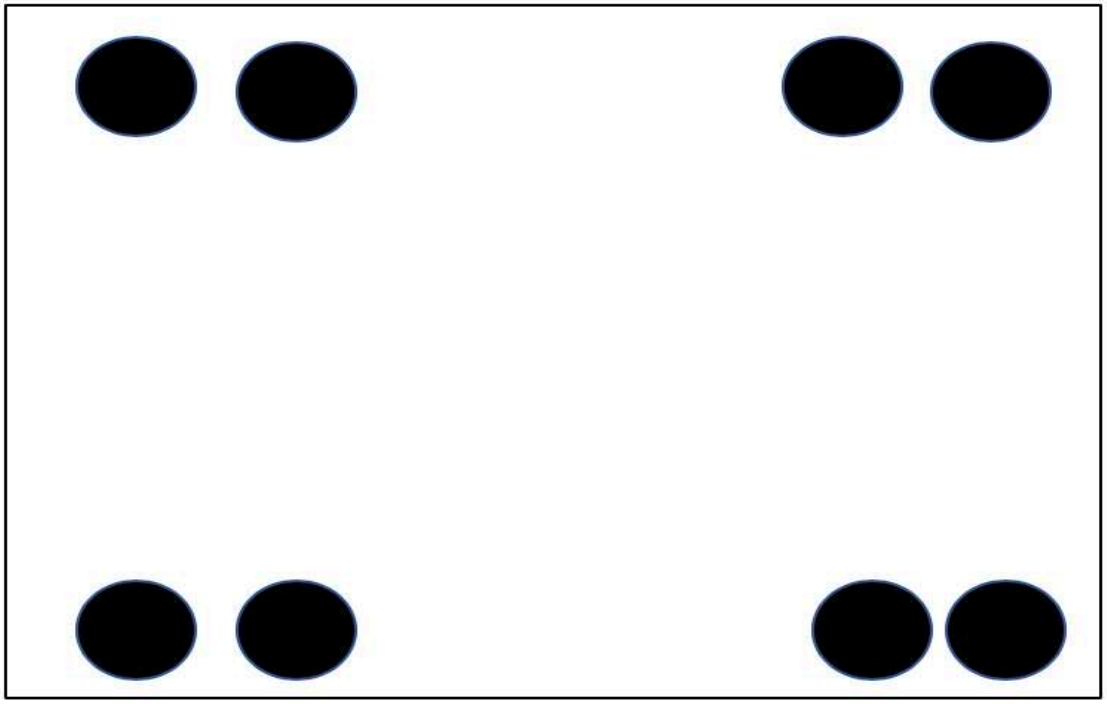


Child 2 says: *No, the dots went like this* [indicates they were in a row or placed horizontally]

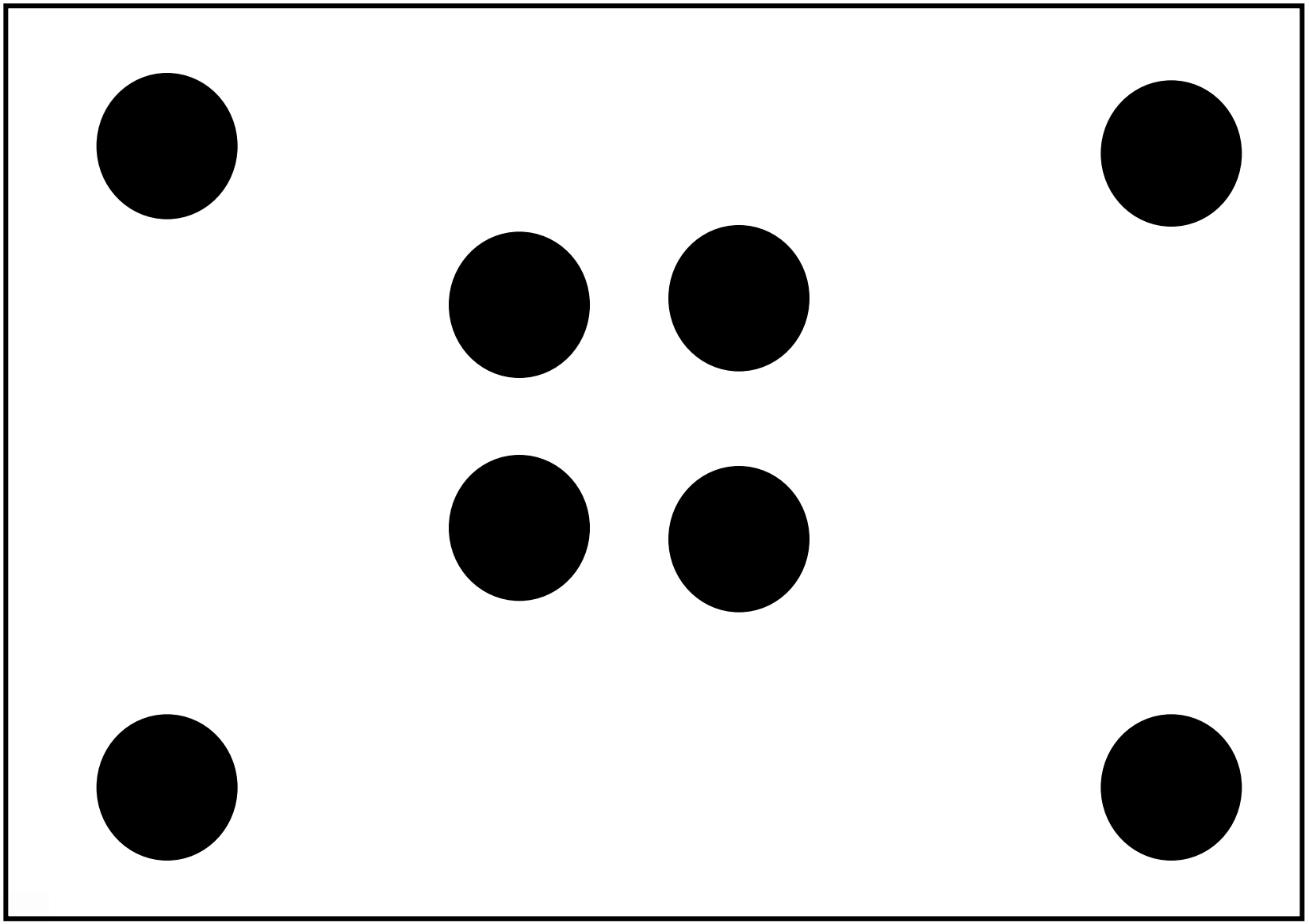
Teacher says: *Oh!* [imitates the child's gesture] *Do you know there's a math word that describes things that go like this? It's the word, horizontal. Can everyone say that word please?*

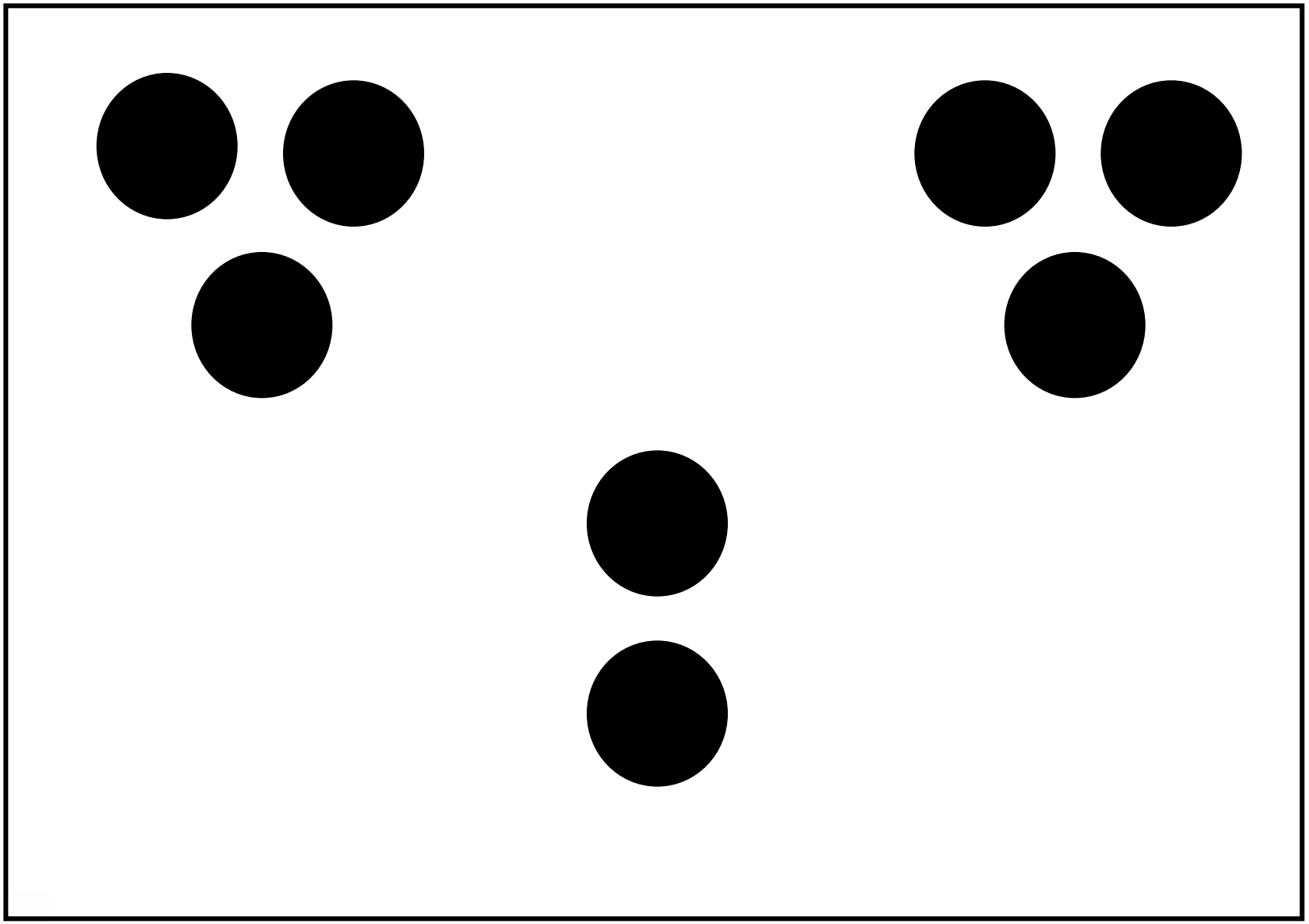
Children: *Horizontal.*

Teacher says: No*w I think I can draw what you saw. There were two dots in each corner. The dots were horizontal.*



- Here are the rest of the images in this lesson.
- What language will children use as they try to describe what they see?





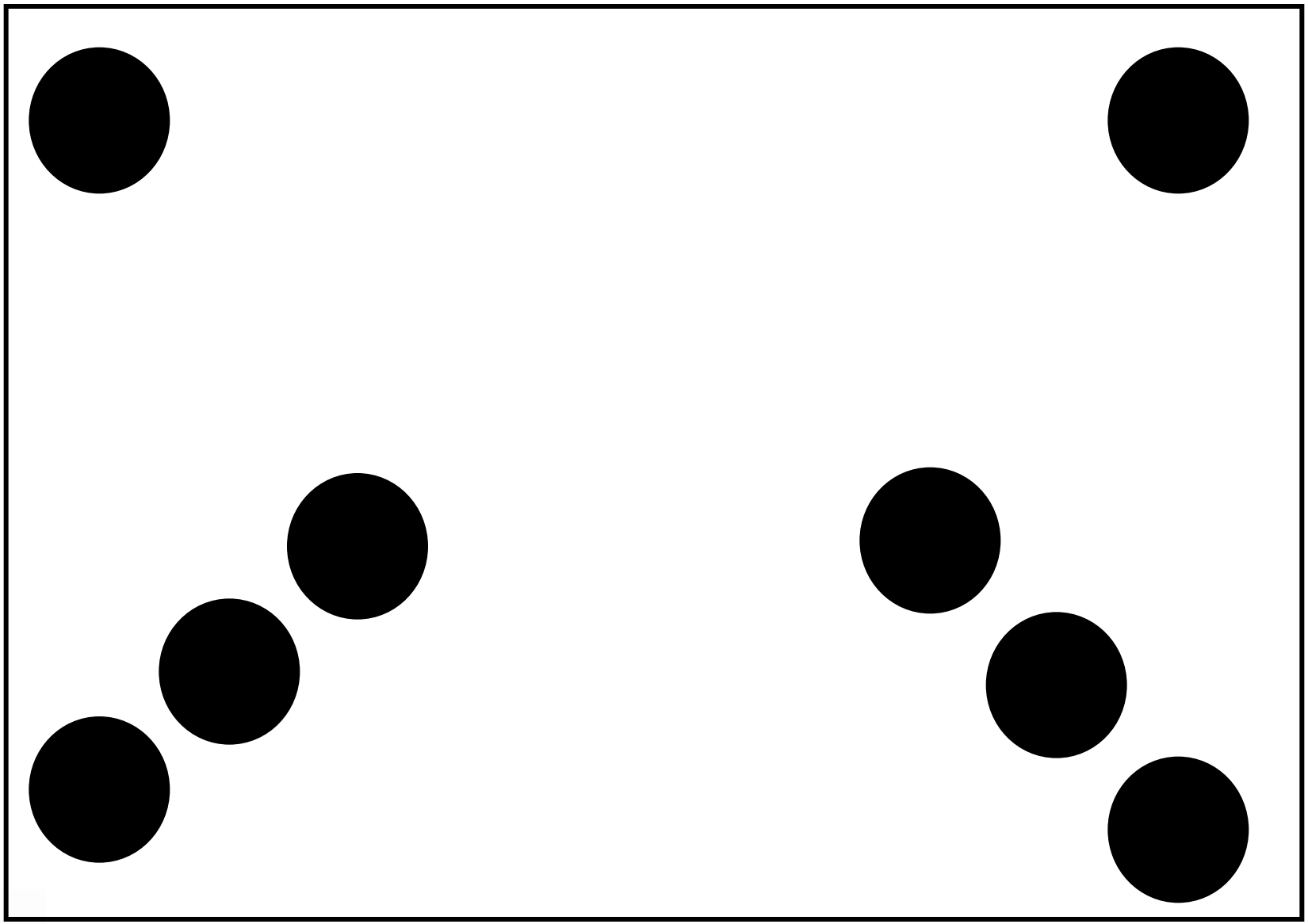


Image #1

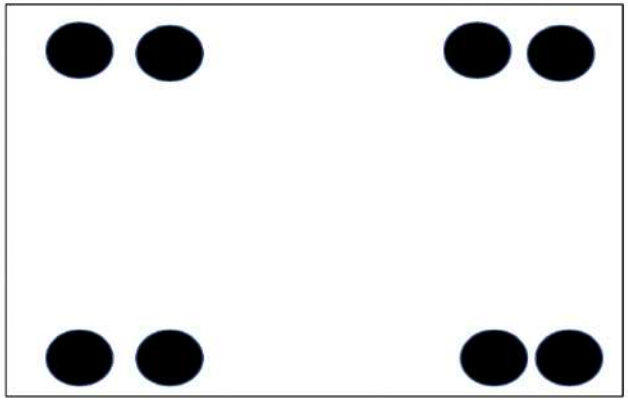
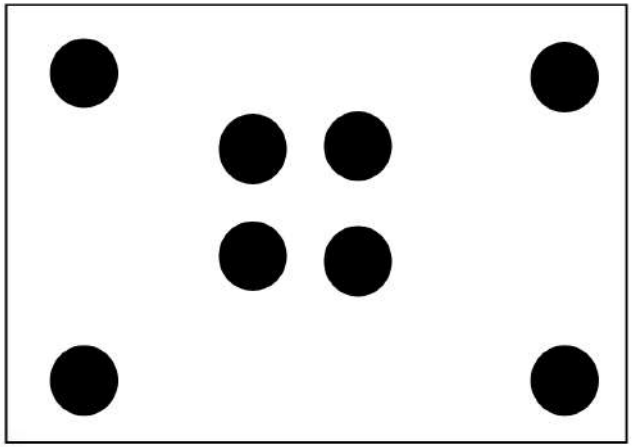


Image #2



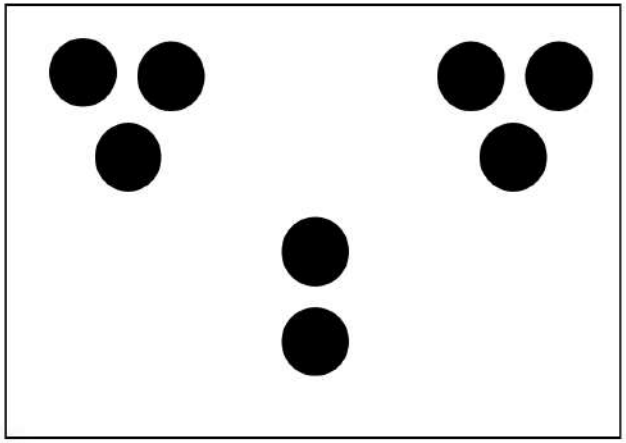


Image #3

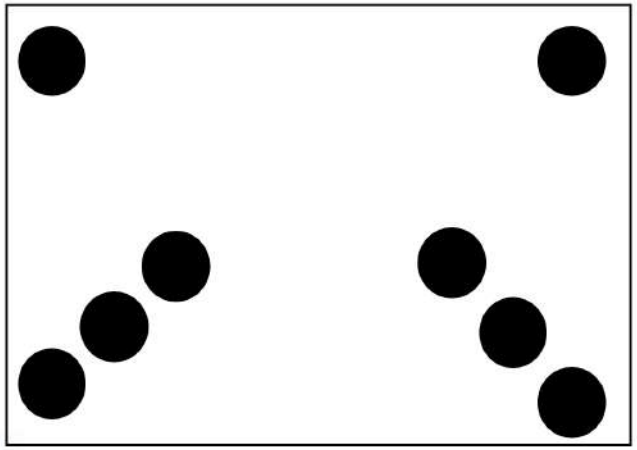
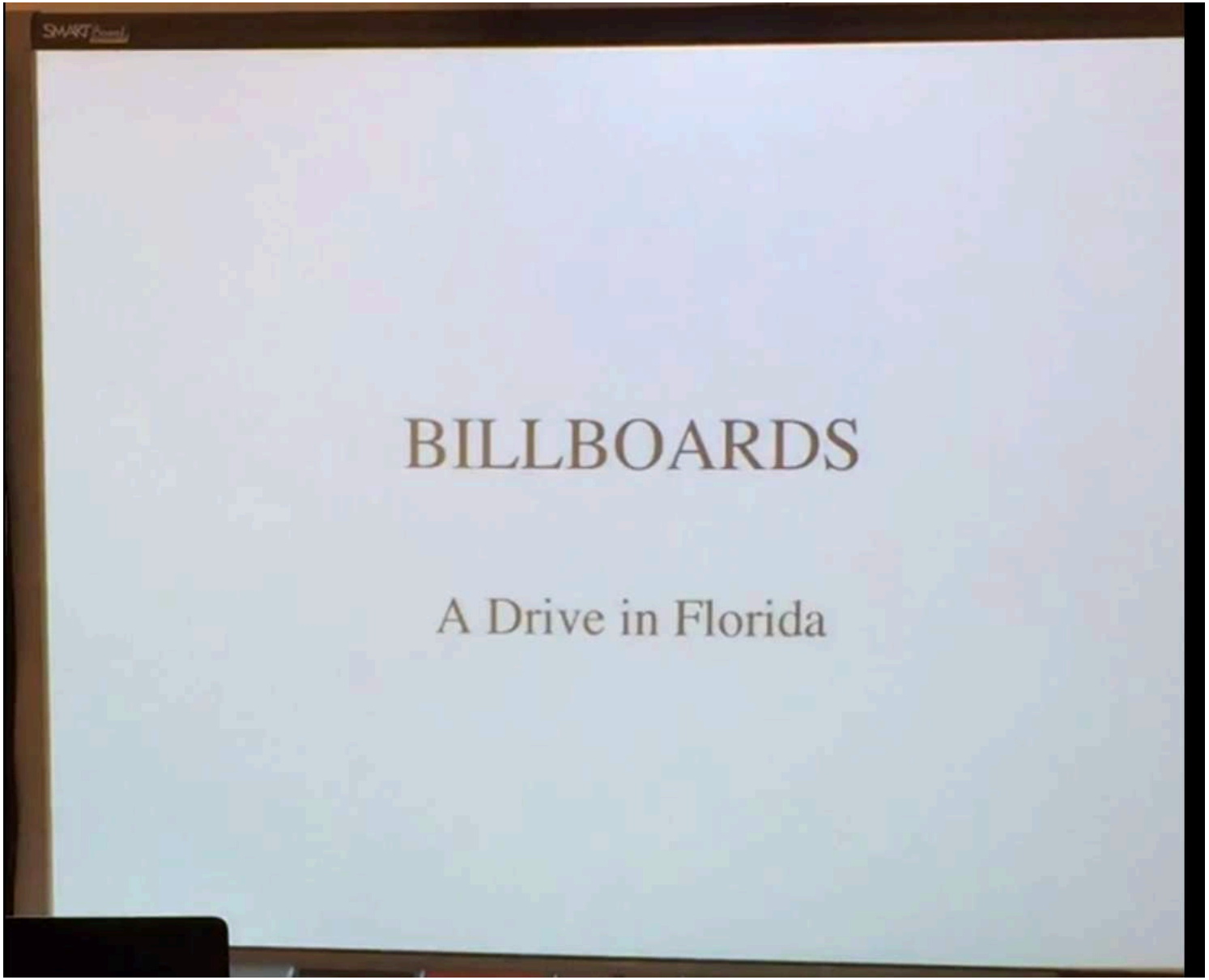


Image #4


BILLBOARDS
A Drive in Florida

Words that students might use or that a teacher might support students to develop. After each image, student language becomes more precise.

Dots

Two dots

Corner

Each corner

Horizontal

Row

Vertical

Diagonal

Square

Triangle

Left/right

Top/bottom

Middle

Center

Describe What You See: *Billboards*

Language	Reasoning	Social/Emotional	Mathematical Problem Solving
* repetition of language * precision of language * academic language * positional language	* spatial reasoning	* listening to the ideas of others * building on the ideas of others	* subitizing * equal groups *comparison/magnitude

Routine #3

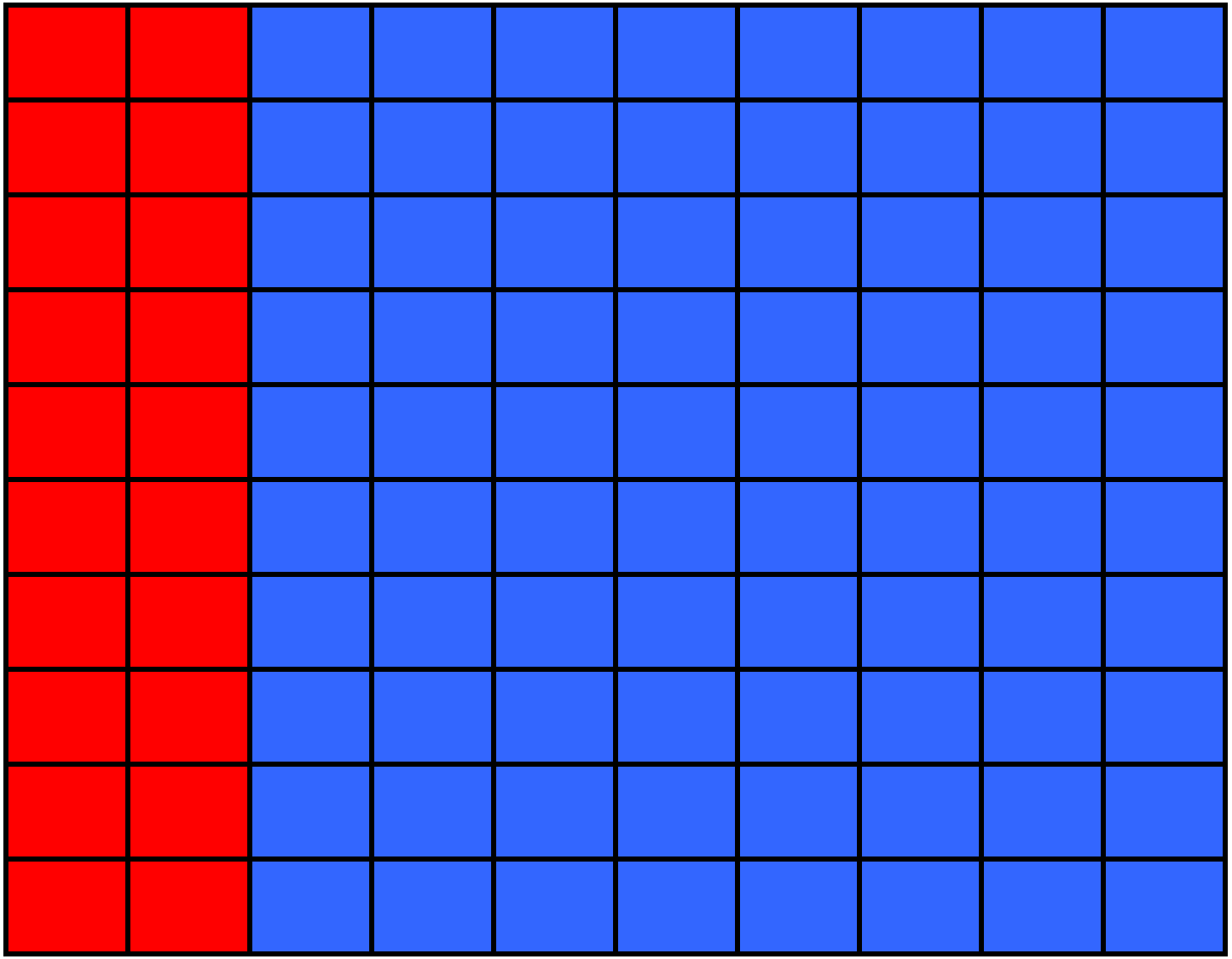
Quick Images: *More Red Squares? More Blue Squares?*

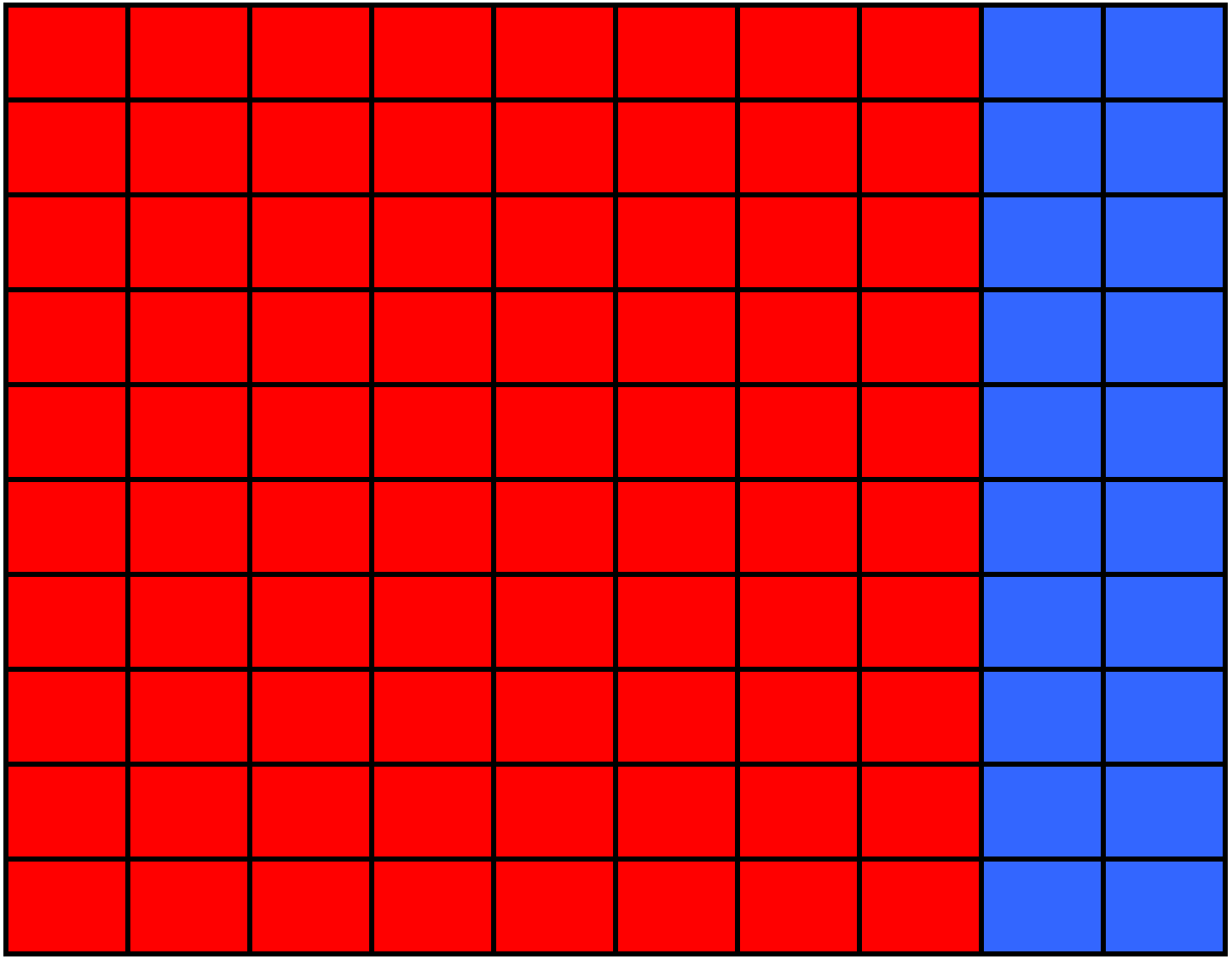
Language	Reasoning	Social-Emotional	Mathematics & Problem Solving

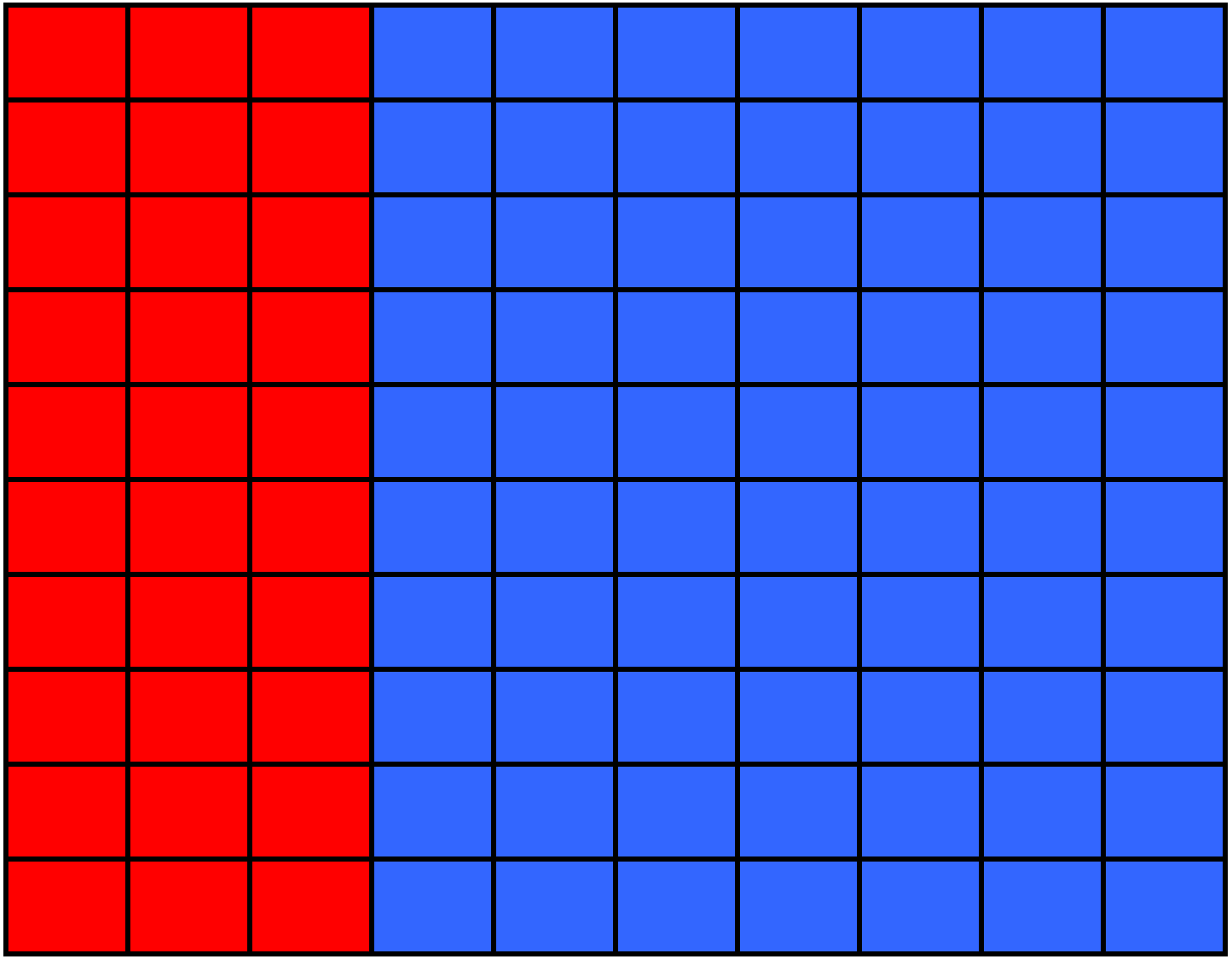
Quick Image: *More Red Squares? More Blue Squares?*

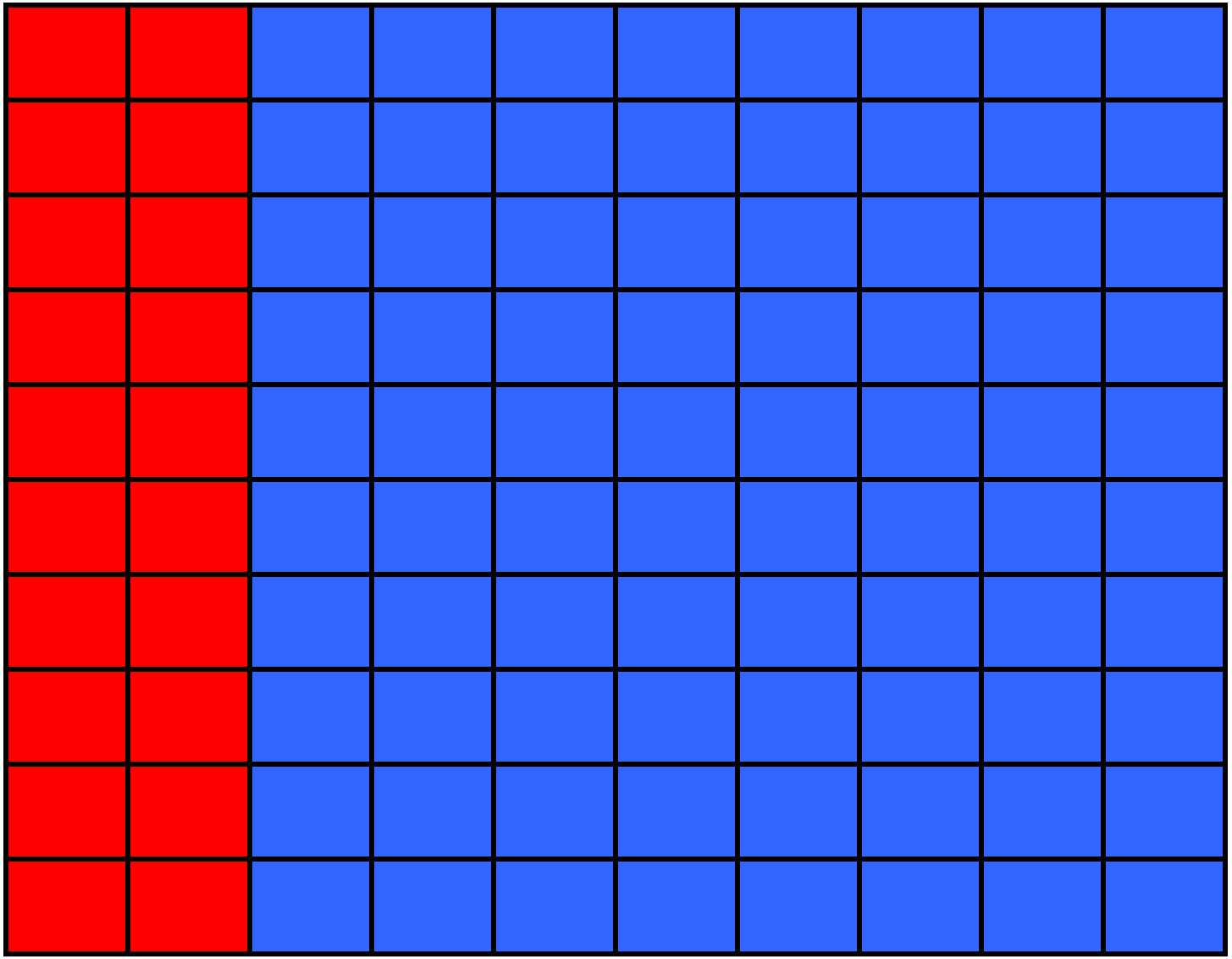
Structure of the activity:

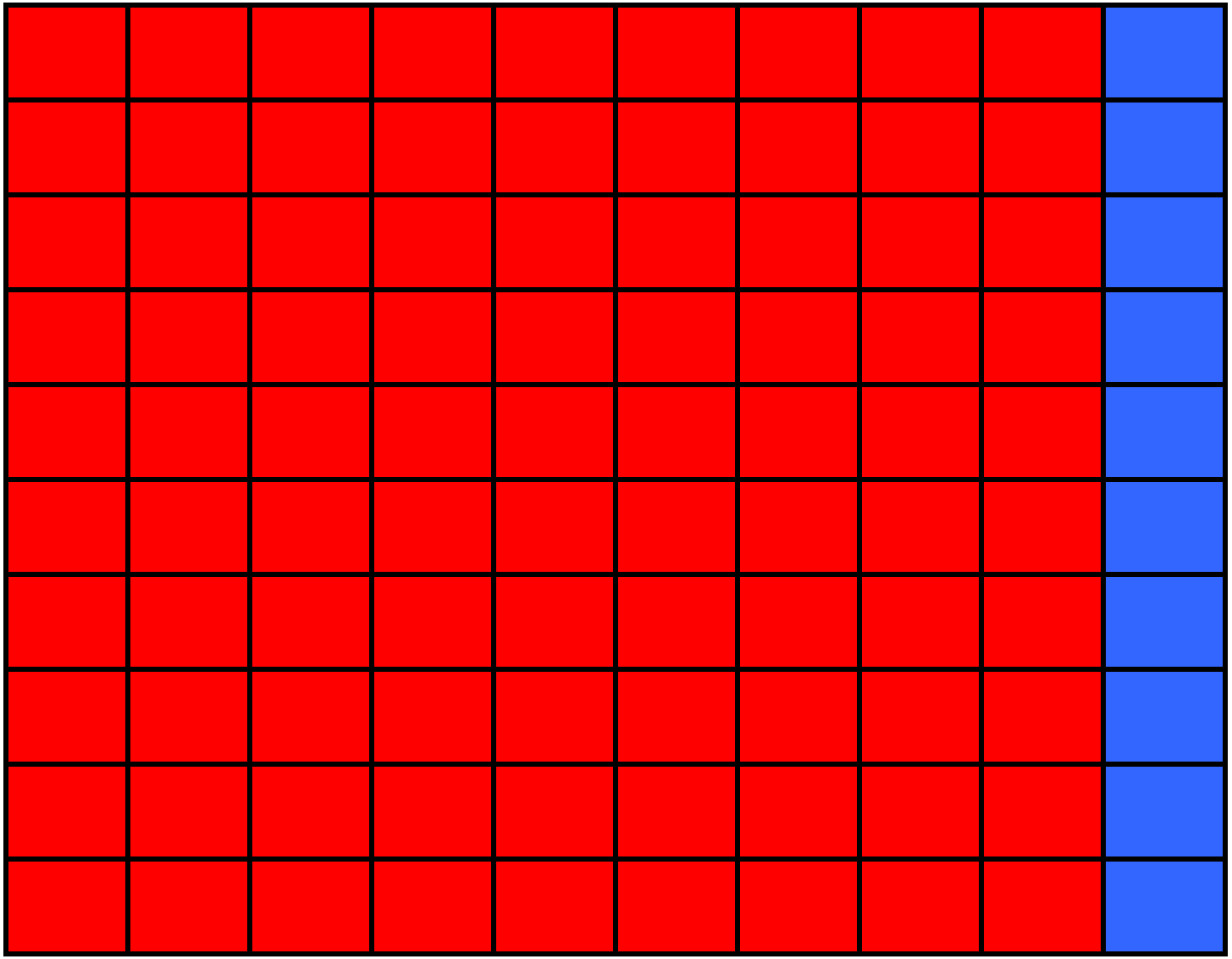
1. Sit students in a circle.
2. Put up the image of the 100s frame. Ask children to think about how many squares are in the frame. Establish that the number of squares is 100.
3. Teach children the signals for showing whether the image has more blue or more red (could be holding up a blue or red cube OR using thumbs up/thumbs down signal.
4. Show the image quickly.
5. Do not discuss images each time; slow down at the end of the series of images to discuss what you noticed (e.g., which images were asy to recognize as more and which were more challenging).

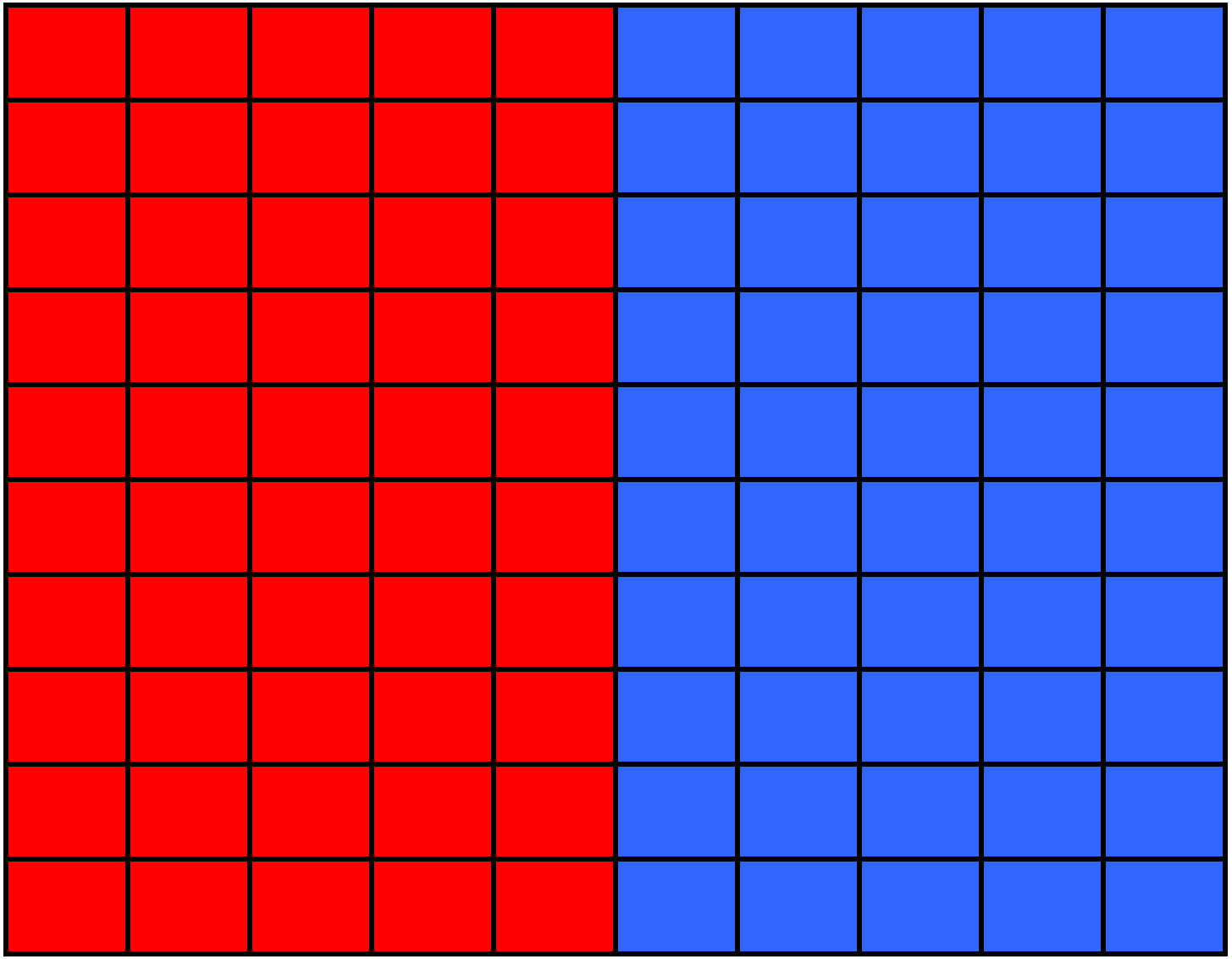


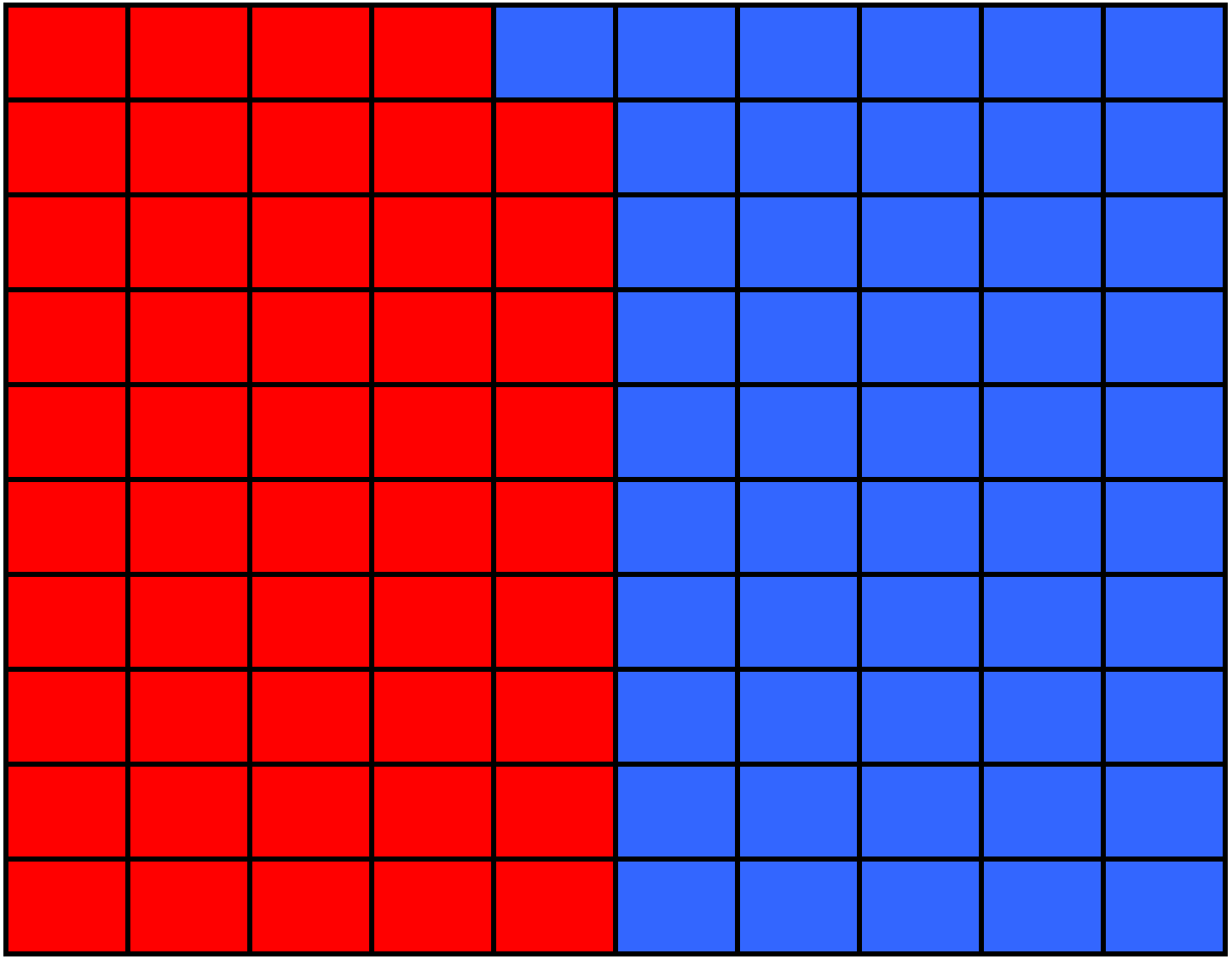


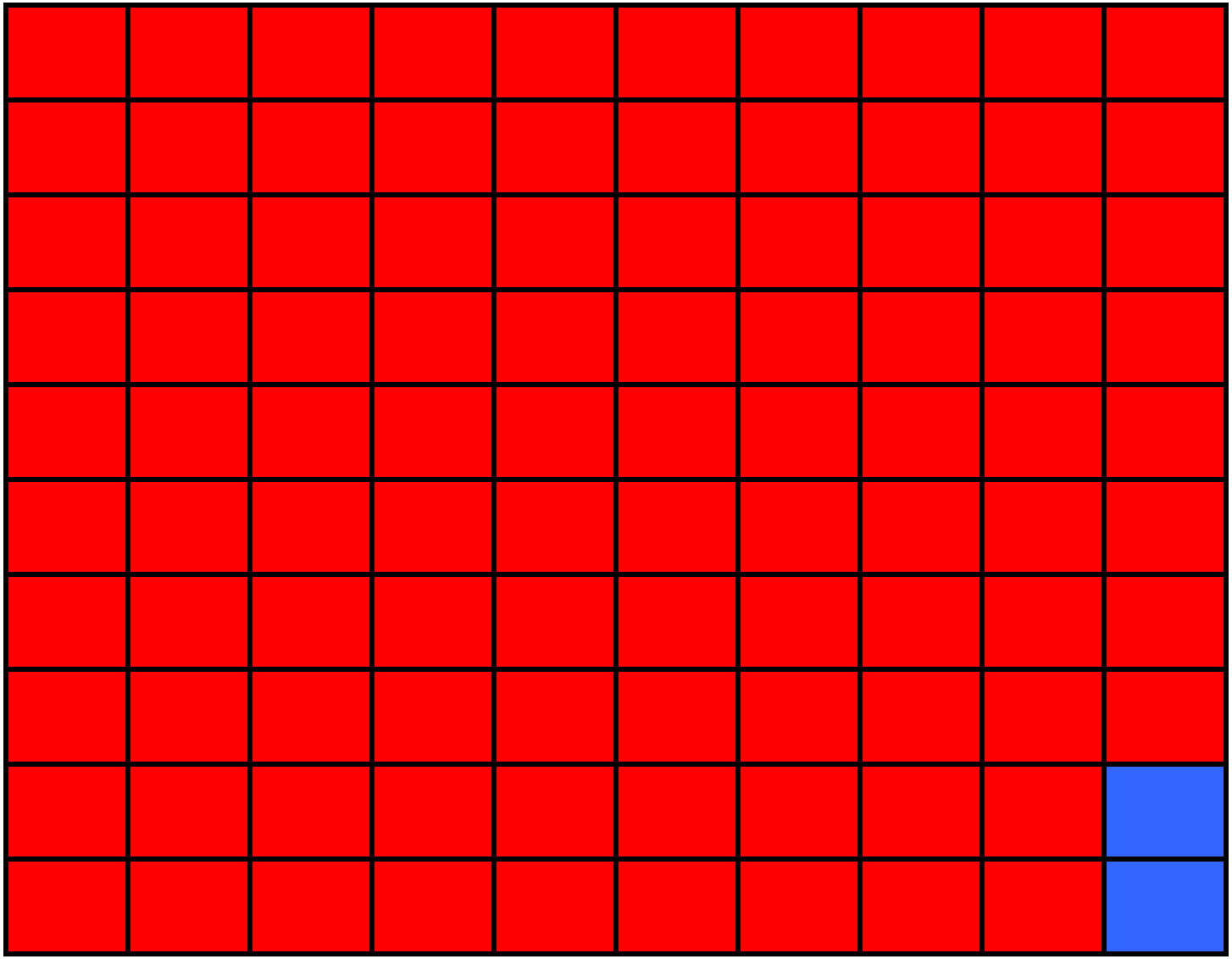


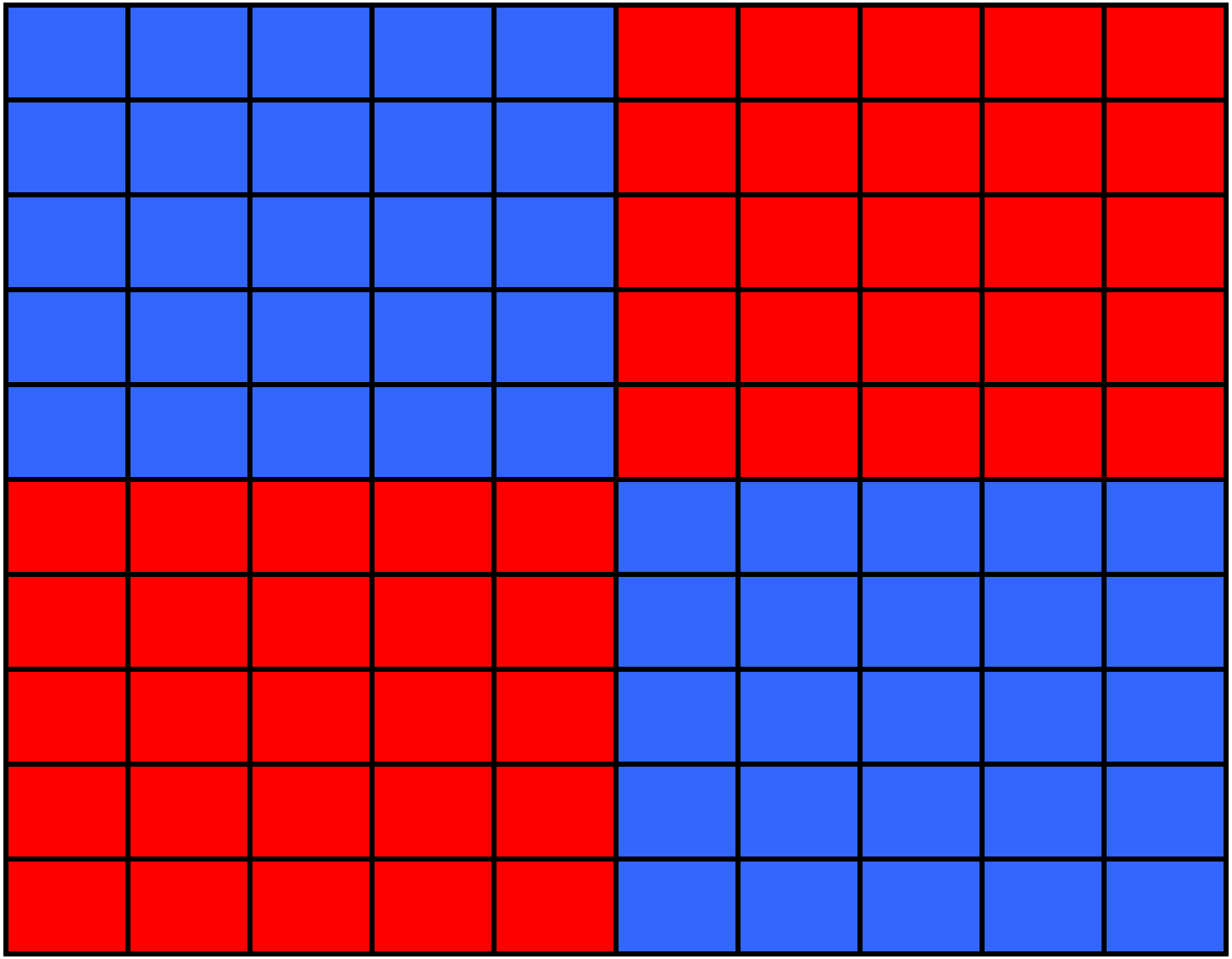


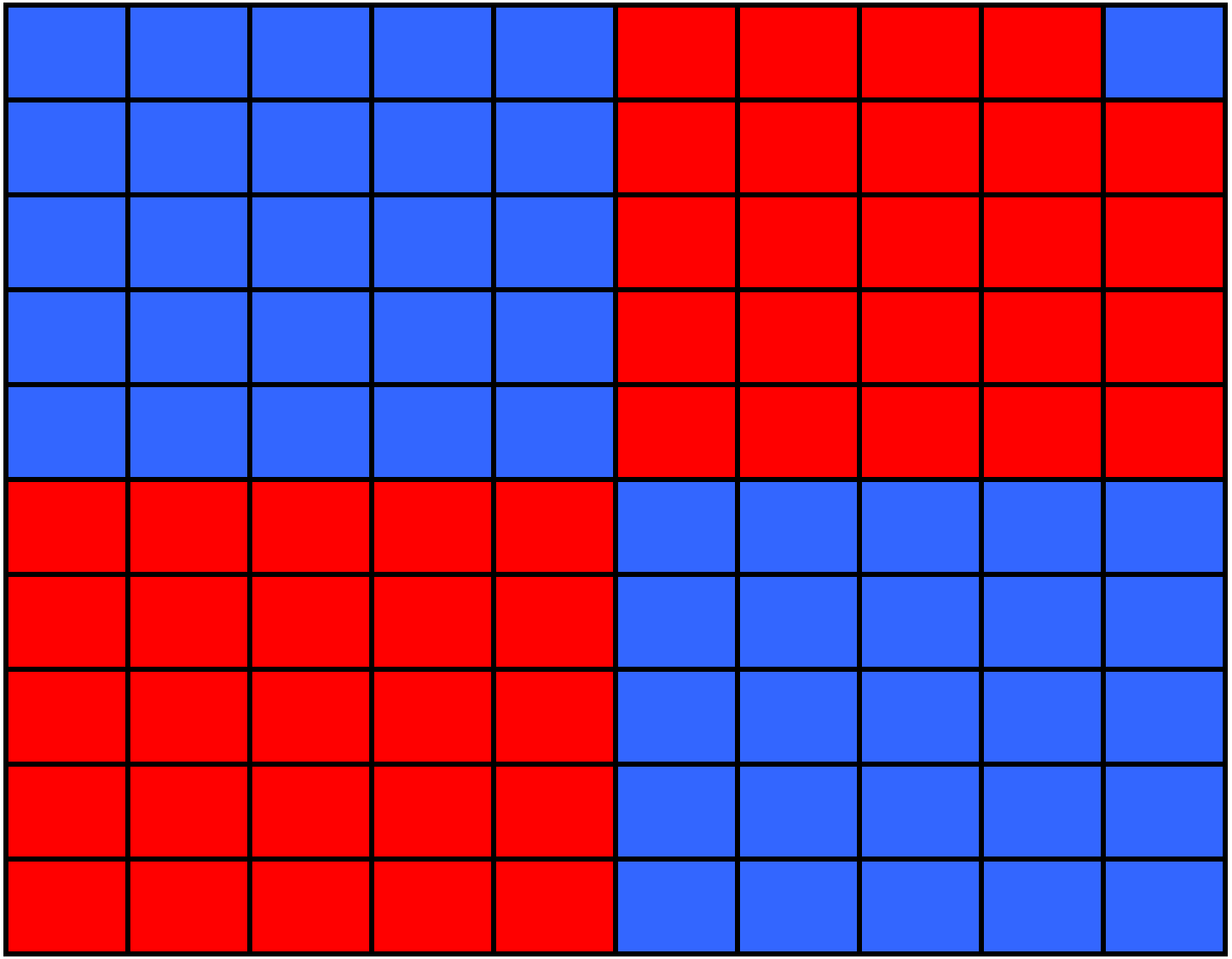












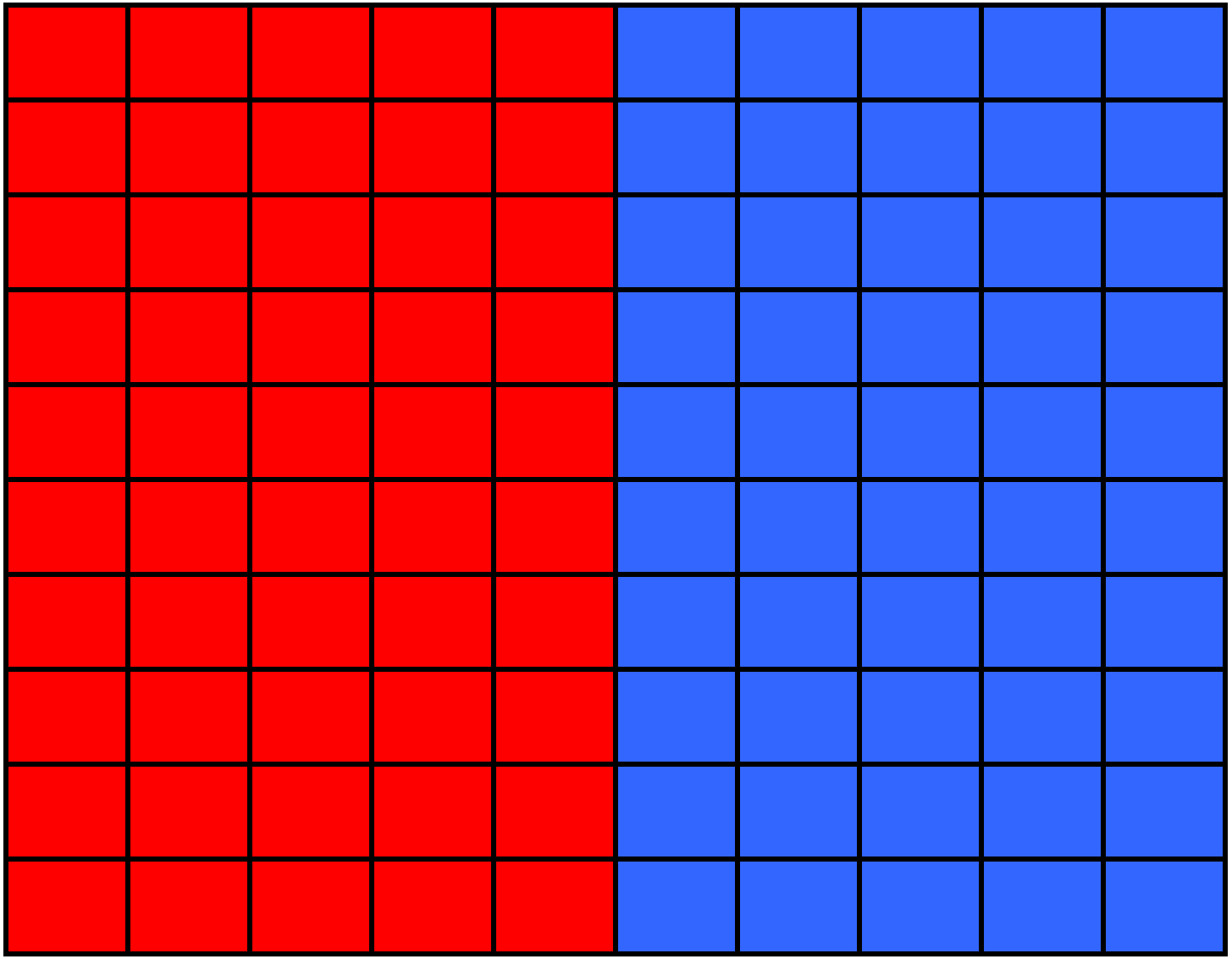
Quick Images:
More Red Squares? More Blue Squares?

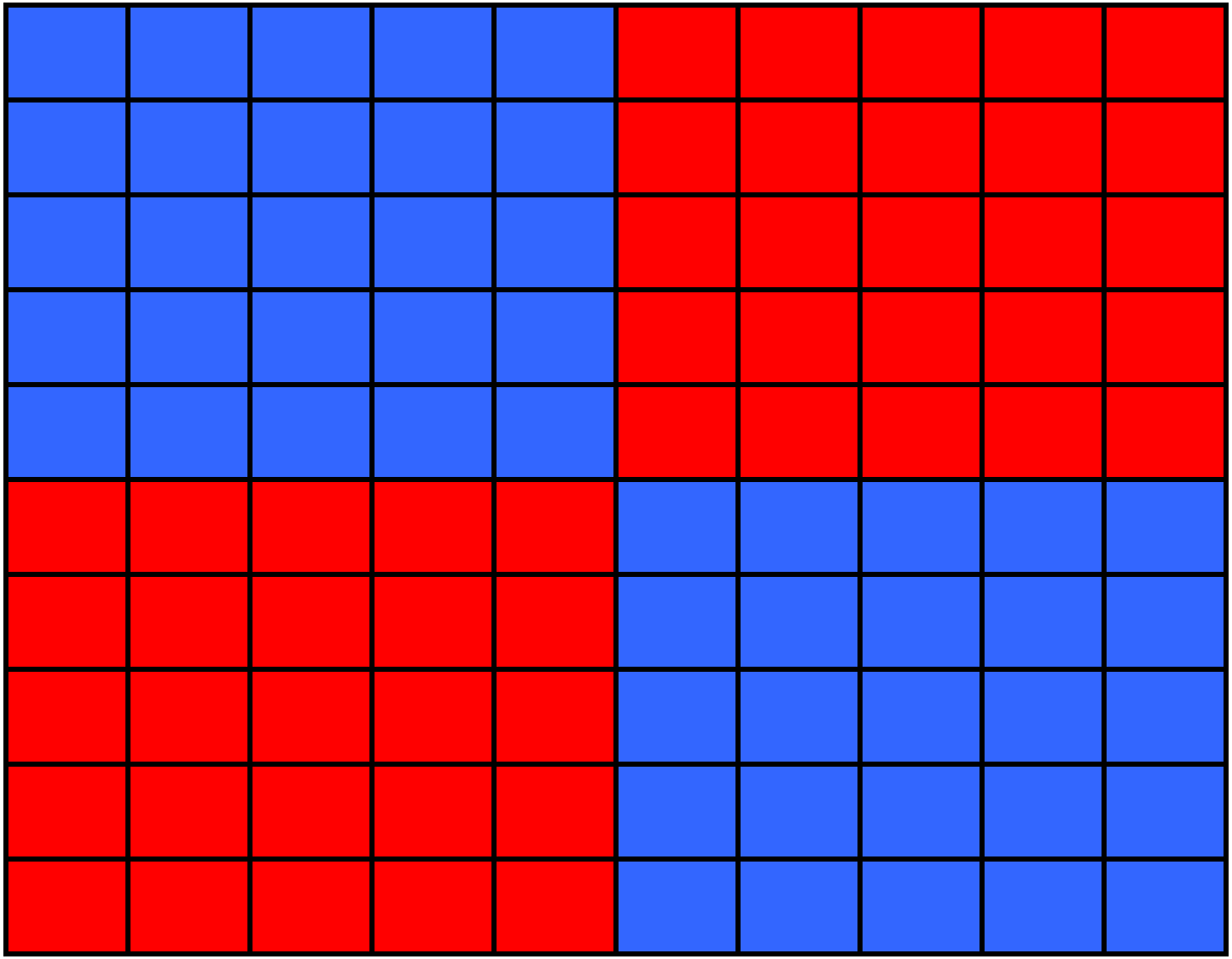
The role of the teacher:

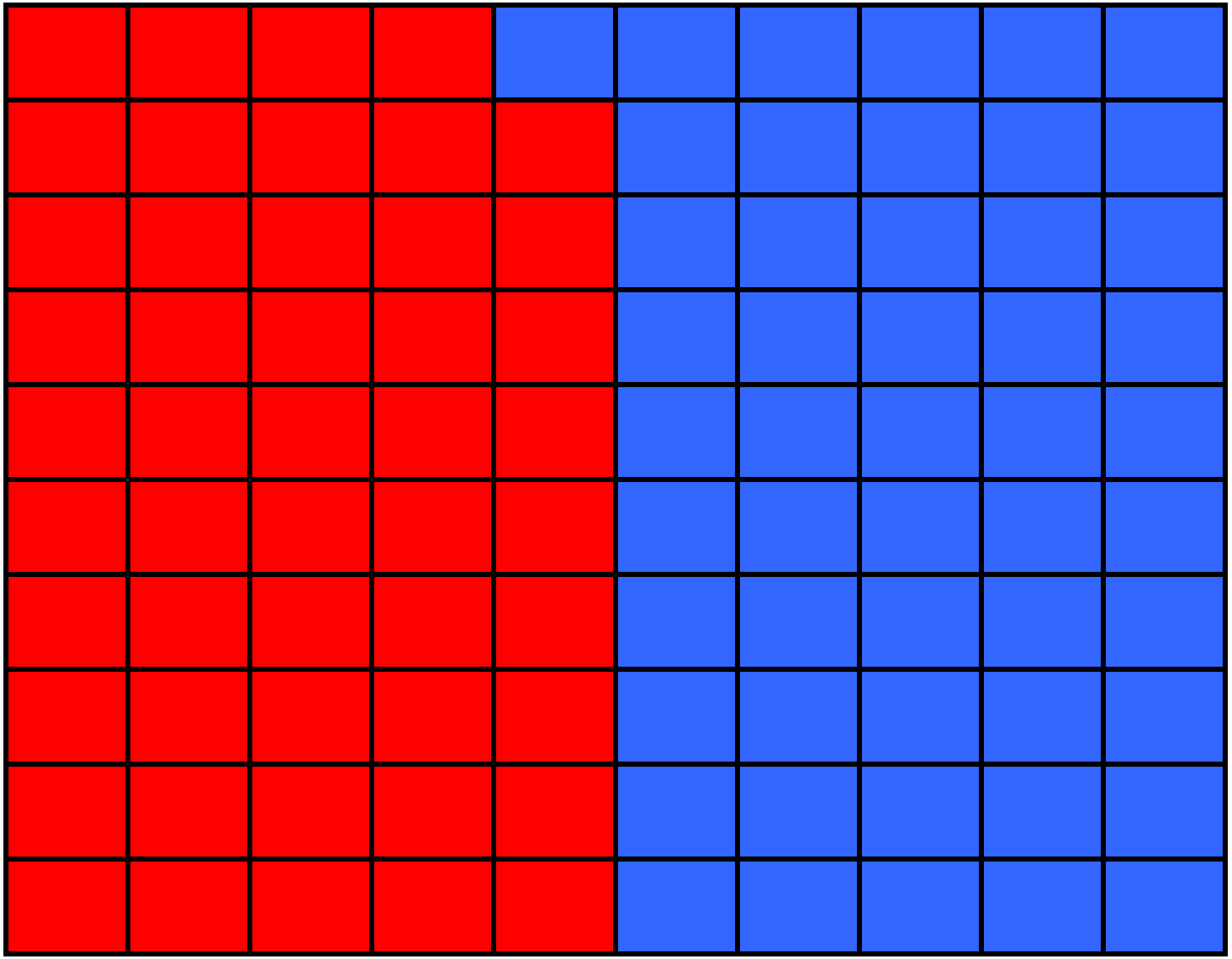
- Assess where students agree
- Note where students disagree
- Return to the images that students did not agree upon at the end of the lesson and discuss how children were perceiving the image and why there might be disagreement.

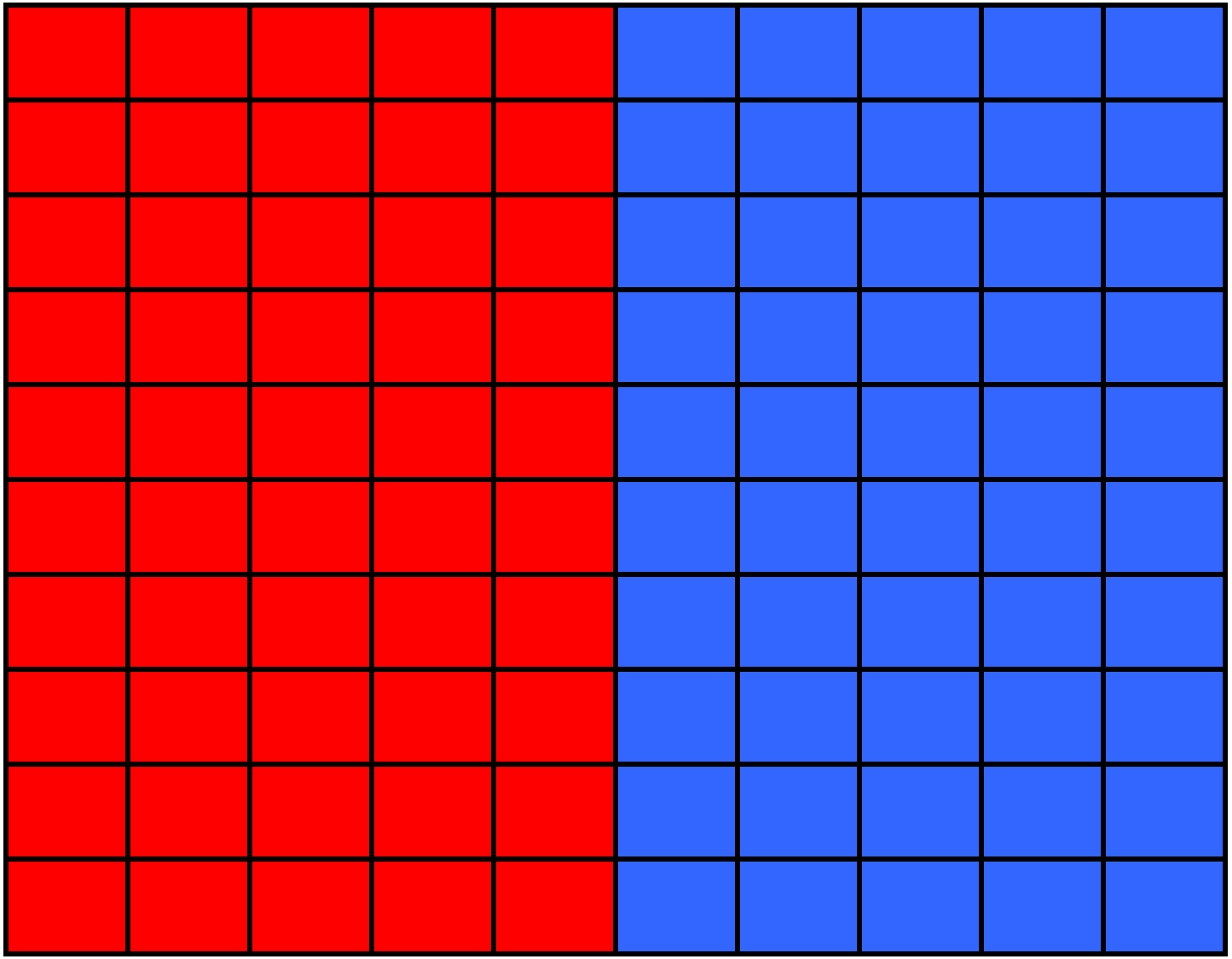
Quick Images:
More Red Squares? More Blue Squares?

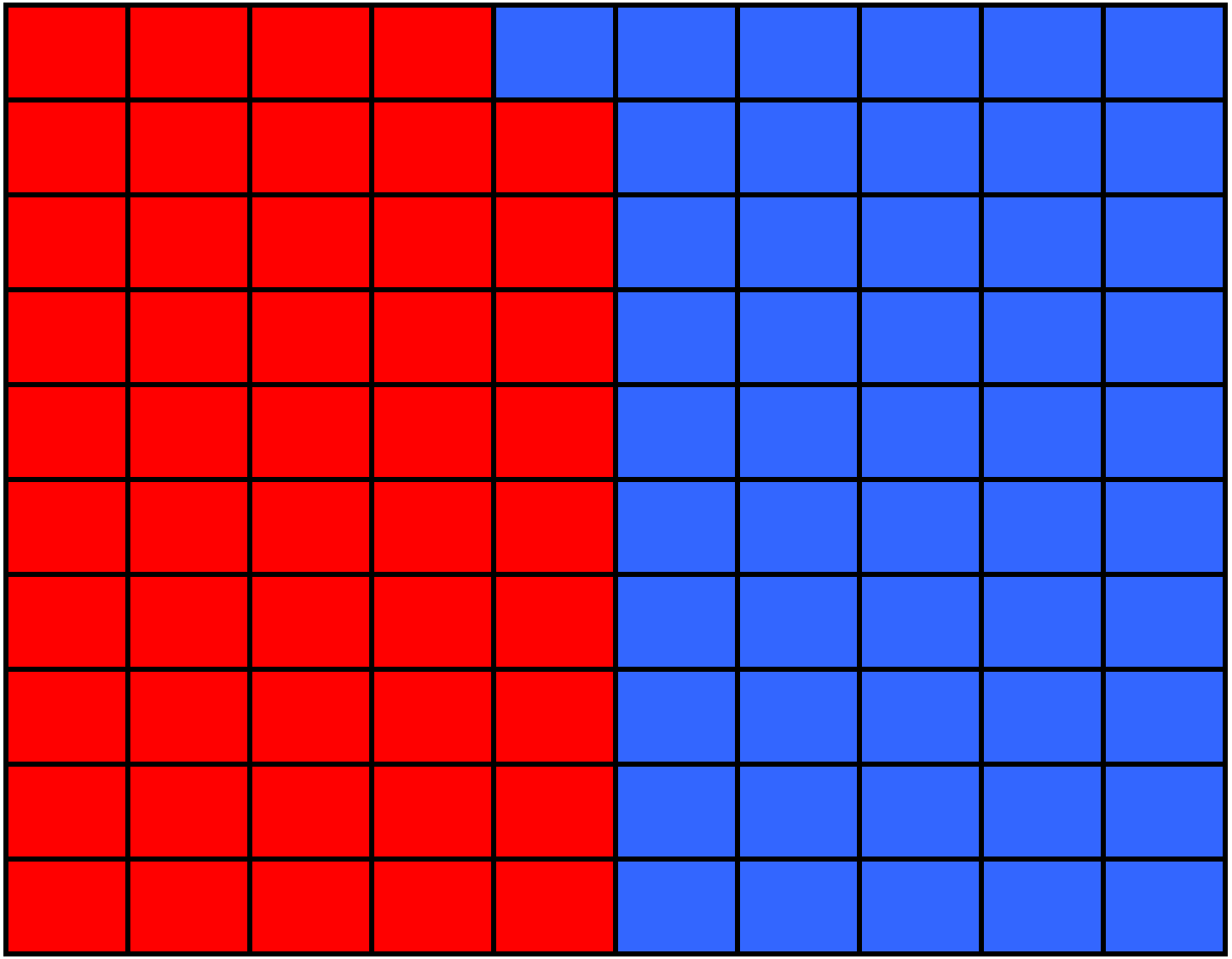
1. What mathematical ideas is this quick image designed to develop?
2. Where might students struggle and why?











Quick Images:
More Red Squares? More Blue Squares?

Language	Reasoning	Social/Emotional	Mathematical Problem Solving
* repetition of language * precision of language * academic language	* visualizing quantities/ relationships	* listening to the ideas of others * building on the ideas of others	* subitizing * equal groups * comparison/magnitude * Structuring 100 using a part-whole model

Routine #4

Fair? Not Fair?

Language	Reasoning	Social-Emotional	Mathematics & Problem Solving

Fair? Not Fair?

Structure of the activity:

1. Sit students in a circle.
2. Remind them of the work they've been doing around making snack fair.
3. Teach children the signals for showing whether the image is fair or not fair (thumbs up if the image shows a fair situation/thumbs down if the images shows a situation that is not fair).
4. Put up the image of snack (pretzels, cookies, etc.) one at a time.
5. Show the image quickly.
6. Do not discuss images each time; slow down when their seems to be disagreement or if you want to challenge their thinking.

Fair? Not Fair?

Sam

Ellen

Sam

Ellen

Sam

Ellen

Sam

Ellen

Fair? Not Fair?

Sam

Ellen

S: They both have 3, but there's only pretzels on them.

Sam

Ellen

S: It's still 3; it looks different.
S: It's fair—they're the same!

Sam

Ellen

S: I think it's fair.
S: It's the same amount.
S: Why is it always 3?
T: What if I said I don't think it's fair?
S: Then you would be wrong!

Fair? Not Fair?

Language	Reasoning	Social/Emotional	Mathematical Problem Solving
* repetition of language * precision of language * academic language	* comparing sets	* listening to the ideas of others * building on the ideas of others	* subitizing * equivalence * comparison/magnitude * part/whole relations

Why reasoning routines?

Why Reasoning Routines?

Children's cognitive behaviors change when we slow down to focus on *structuring big ideas*.

Children's habits of mind are developed when we focus on the importance of being able to communicate their ideas in a community of learners.

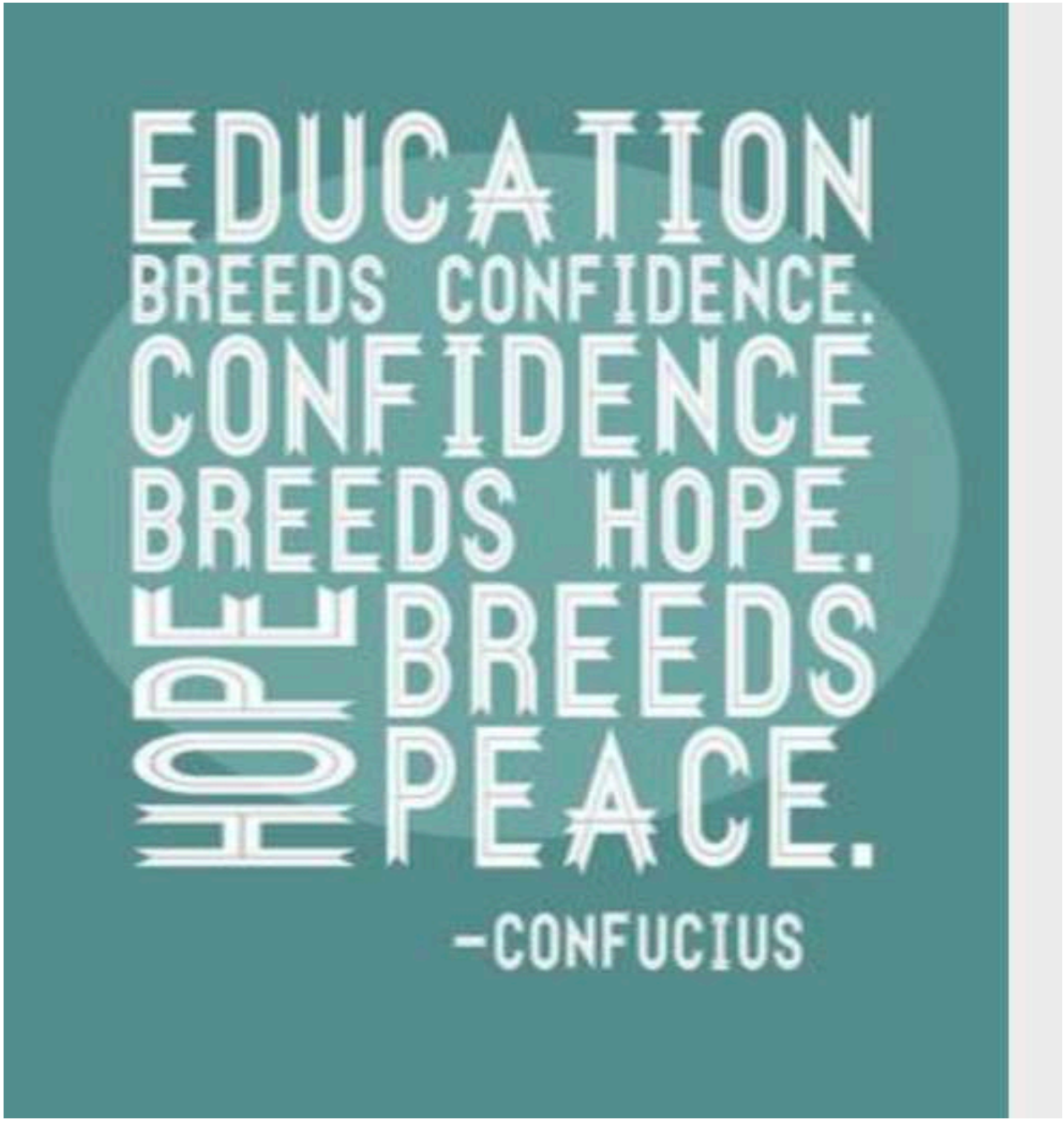
Why Reasoning Routines?

When you slow down, children are more willing to

- slow down and play with ideas;
- listen to and question the ideas of others;
- make connections;
- create conjectures; and
- generalize ideas.

Why Reasoning Routines?

Children develop autonomy and are more willing to advocate for their own learning *when their* ***understanding*** *is central to what we do as teachers*.


EDUCATION
BREEDS CONFIDENCE.
CONFIDENCE
BREEDS HOPE.
HOPE BREEDS
PEACE.
-CONFUCIUS

Questions & Answers

Thanks for listening to our session!

Contact us at:

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