Differentiated Instruction in the mixed-ability classroom

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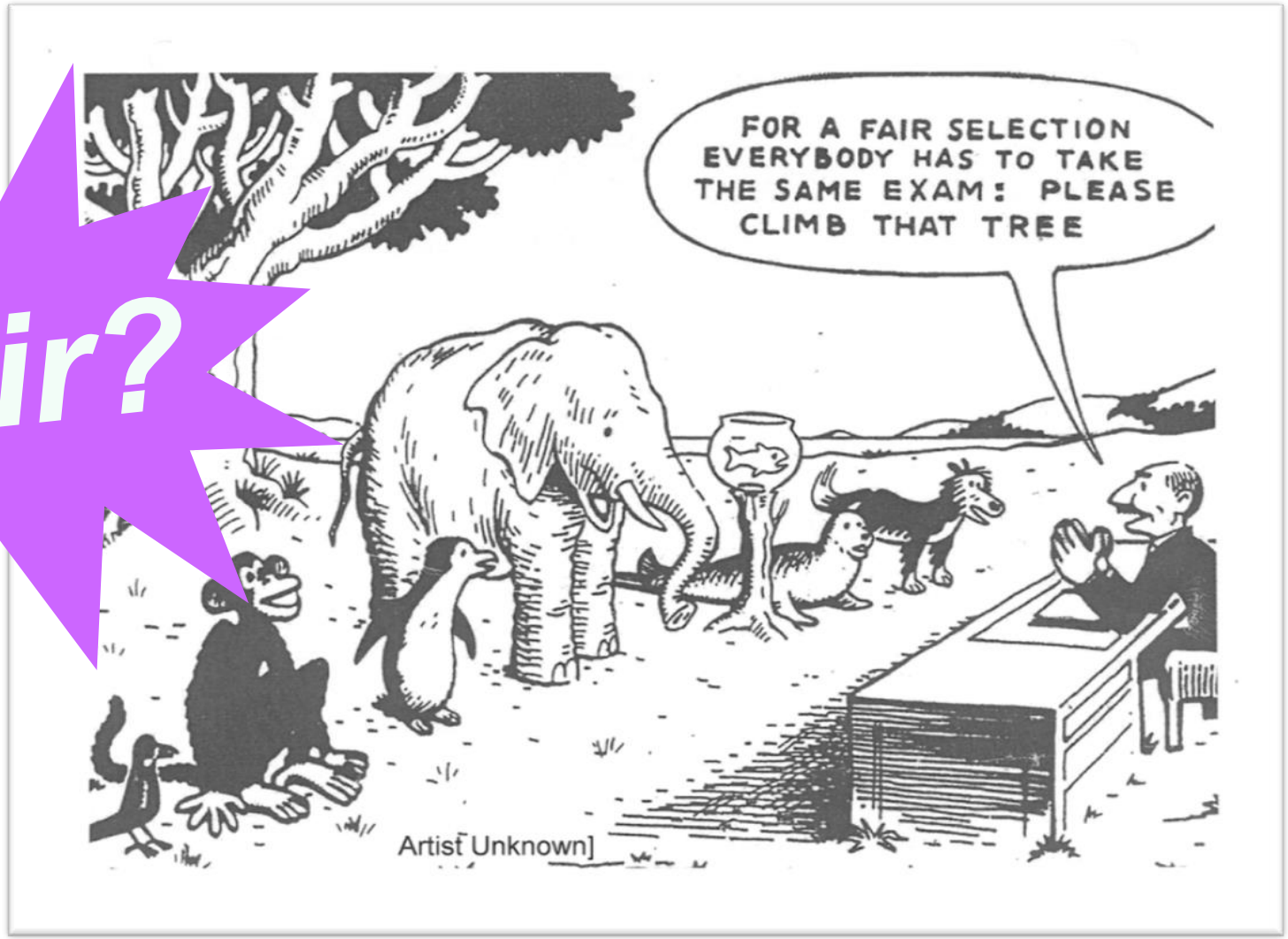
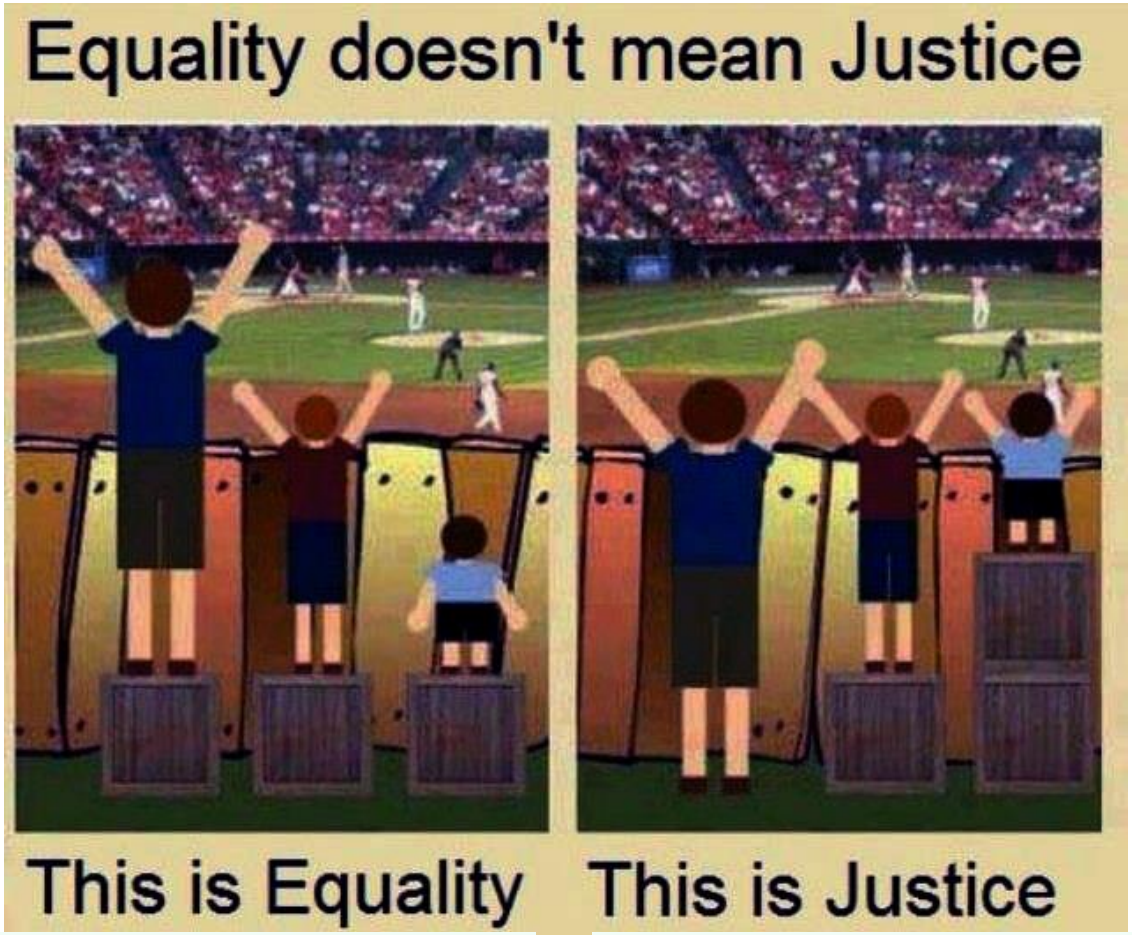
What are your greatest concerns or challenges as teachers?

Fair?



Equality doesn’t mean justice!



Equality

Justice

Multiple intelligence

- 角色扮演
- 用自己的話來說
- 組織卡片和筆記
- 形成問題
- 決定為什麼這是重要的
- 按順序列出問題
- 與過去的經驗相比較
- 創建一張流程圖
- 比較筆記
- 繪製一張學習地圖
- 討論或將其講出來
- 創建內心的動態圖
- 寫成韻文或歌曲
- 構想背景音樂

Using Multiple intelligence to differentiate instruction

1. One size doesn't fit all.
2. Respond to the diverse students' needs.

How to plan for differentiated instruction (Tomllinson, C. & Strickland, C., 2005)

What?

- **Content**
- **Process**
- **Product**
- **Affect**
- **Learning environment**

How?

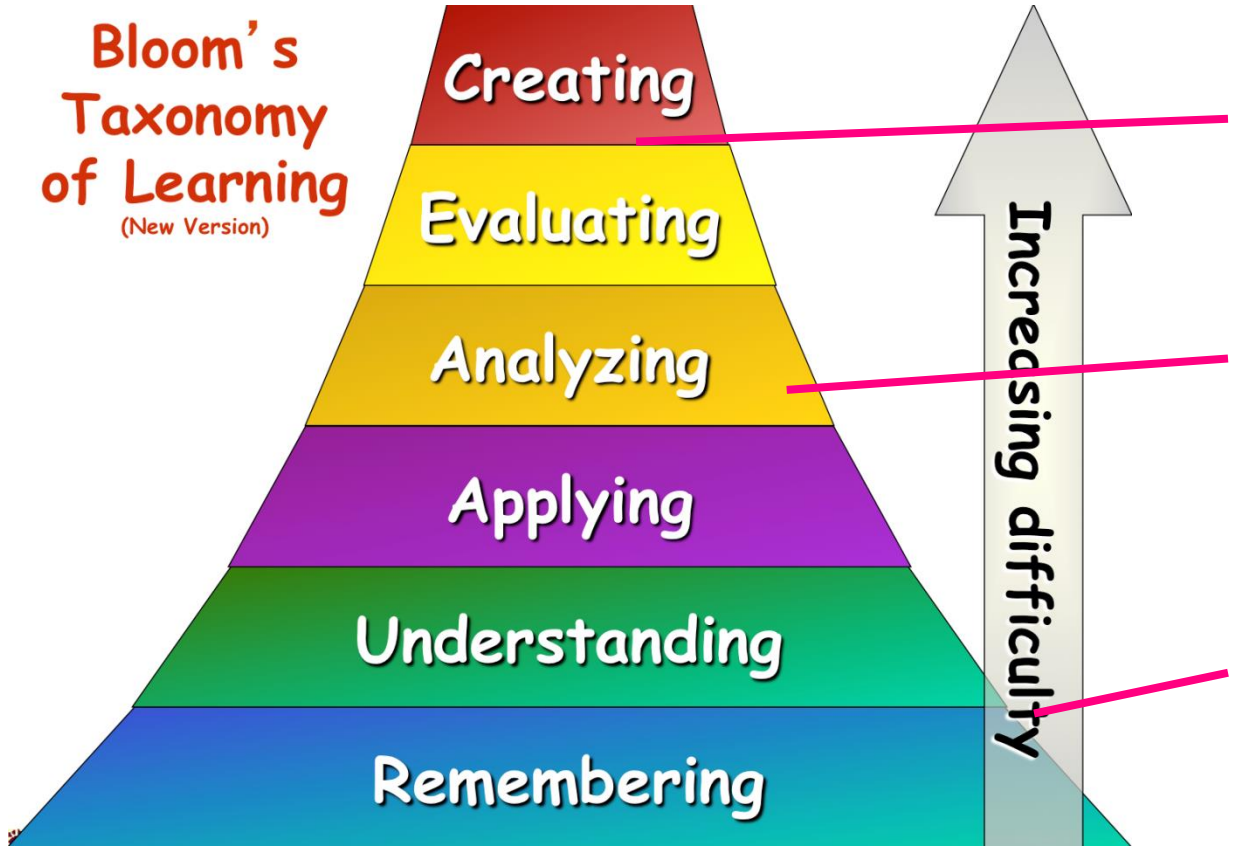
- **Student readiness**
- **Student interest**
- **Student learning profile**

Why?

- **Assess to learning**
- **Motivation/ engagement/ relevance**
- **Efficiency of learning**
- **Appropriate level of challenge**
- **Opportunity to express learning**

How?

→ **Consider using Bloom's Taxonomy whiling planning tiered activities.**



Advanced learner
creative, critical thinking…

Average
how, why…

Slow learner
yes-no, who, what, when, where…

DI

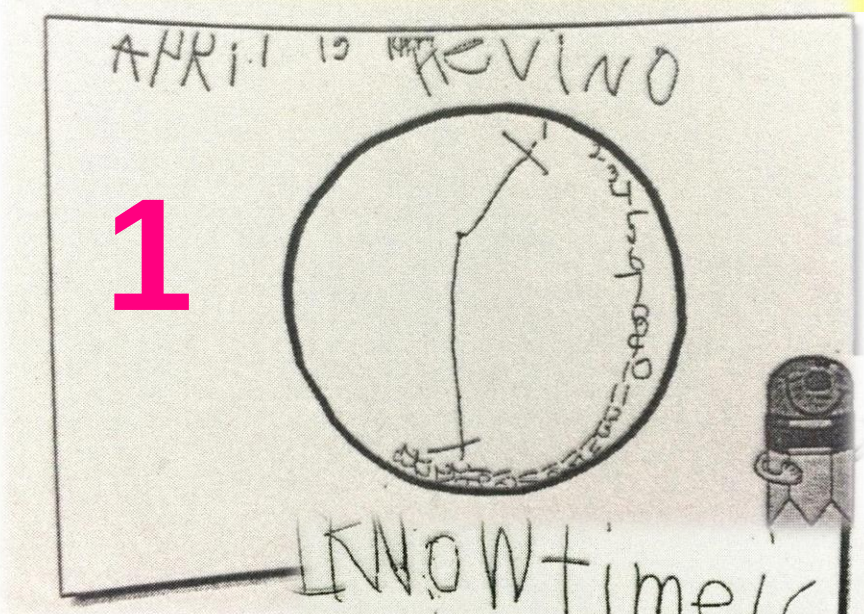
- Student centered
- Active
- Facilitator
- Flexible grouping
- Formative assessment
- Pull-out remedial instruction

Traditional

- Teacher centered
- Passive
- Instructor
- Group by grades
- Summative Assessment
- After class remedial instruction

Pre-assessment

1



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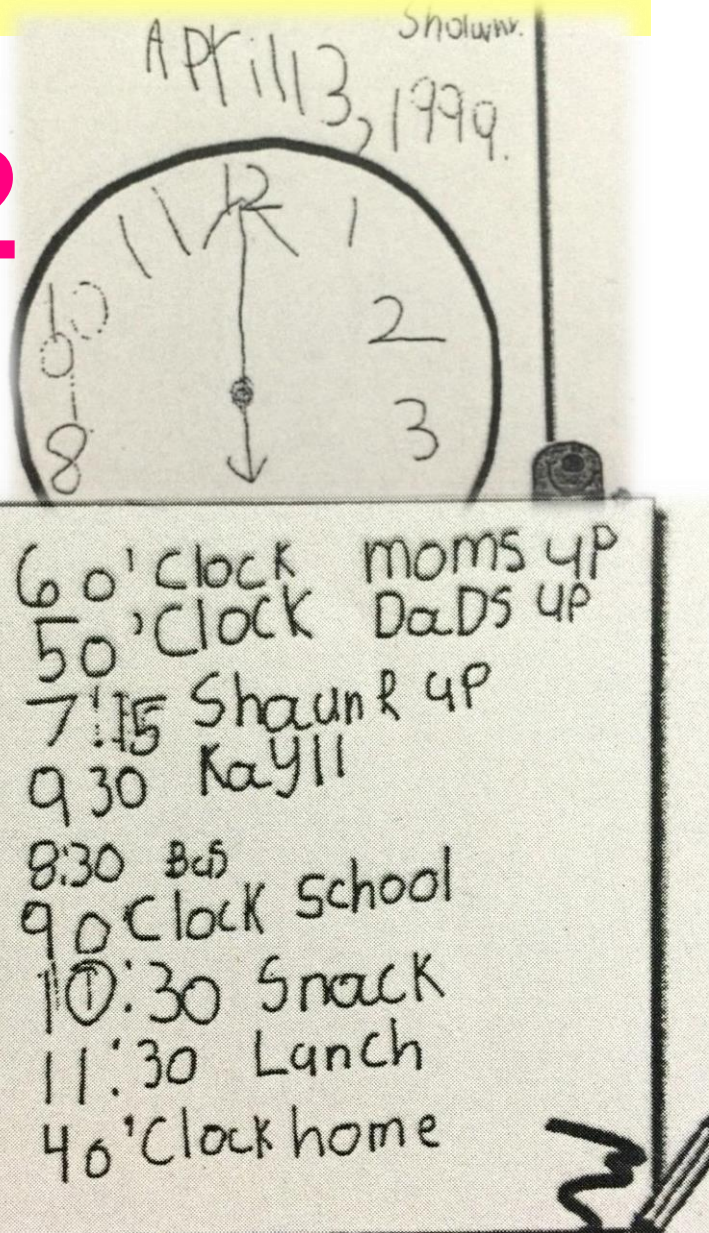


3

4

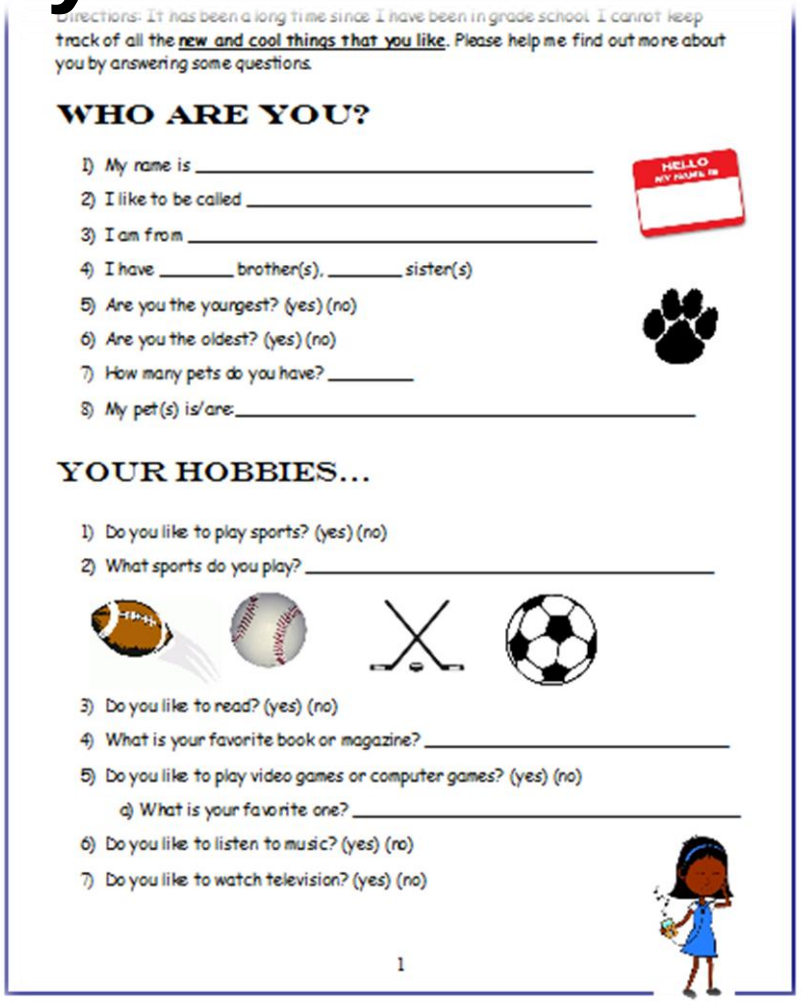
Interest Inventory

→ General-Get to know you

→ Specific to content

→ Learning style

→ Personality profile



Directions: It has been a long time since I have been in grade school. I cannot keep track of all the new and cool things that you like. Please help me find out more about you by answering some questions.

WHO ARE YOU?

1) My name is _____
2) I like to be called _____
3) I am from _____
4) I have _____ brother(s), _____ sister(s)
5) Are you the youngest? (yes) (no)
6) Are you the oldest? (yes) (no)
7) How many pets do you have? _____
8) My pet(s) is/are: _____

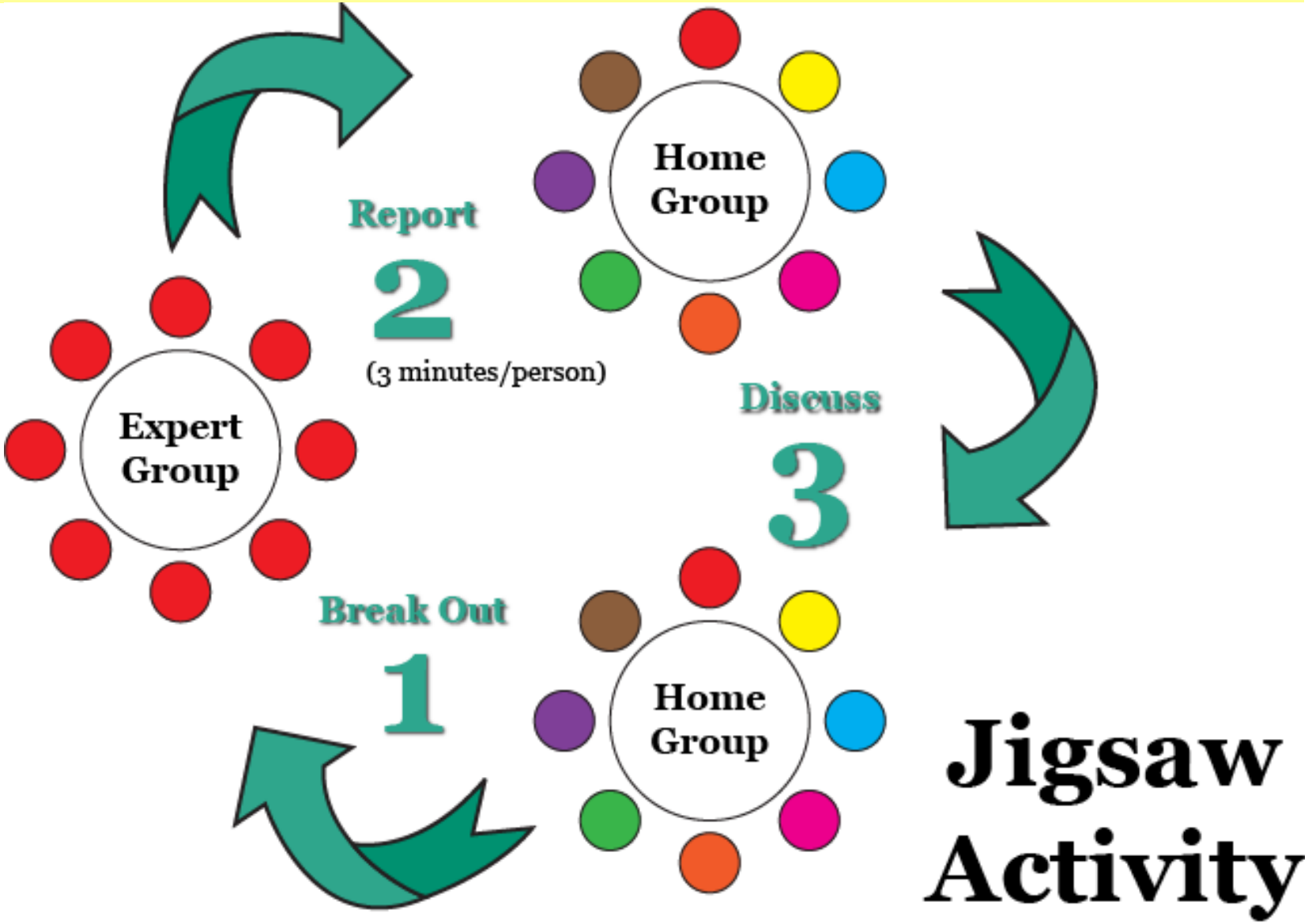
YOUR HOBBIES…

1) Do you like to play sports? (yes) (no)
2) What sports do you play? _____
3) Do you like to read? (yes) (no)
4) What is your favorite book or magazine? _____
5) Do you like to play video games or computer games? (yes) (no)
   a) What is your favorite one? _____
6) Do you like to listen to music? (yes) (no)
7) Do you like to watch television? (yes) (no)

1

Flexible grouping

Jigsaw


Home Group
Report
2
(3 minutes/person)
Expert Group
Discuss
3
Break Out
1
Home Group
Jigsaw Activity

Choice board

Choice Board

Write your spelling words three times each in cursive.	Free Choice! You decide how to practice your words.	Write 12 sentences. Each sentence must be at least 12 words long. No sentence may begin with "I."
Make a code for each letter in the alphabet. Spell your words using your code.	Write all your words in ABC Order in cursive.	Make an unscramble worksheet of all of your words. Give to someone to unscramble before turning in to the tray.
Choose 10 words and draw a picture to represent the word.	Make a fill-in-the-blank worksheet using 10 of your words. Be sure to include an answer key.	Write the definition for 12 words (not enrichment words)

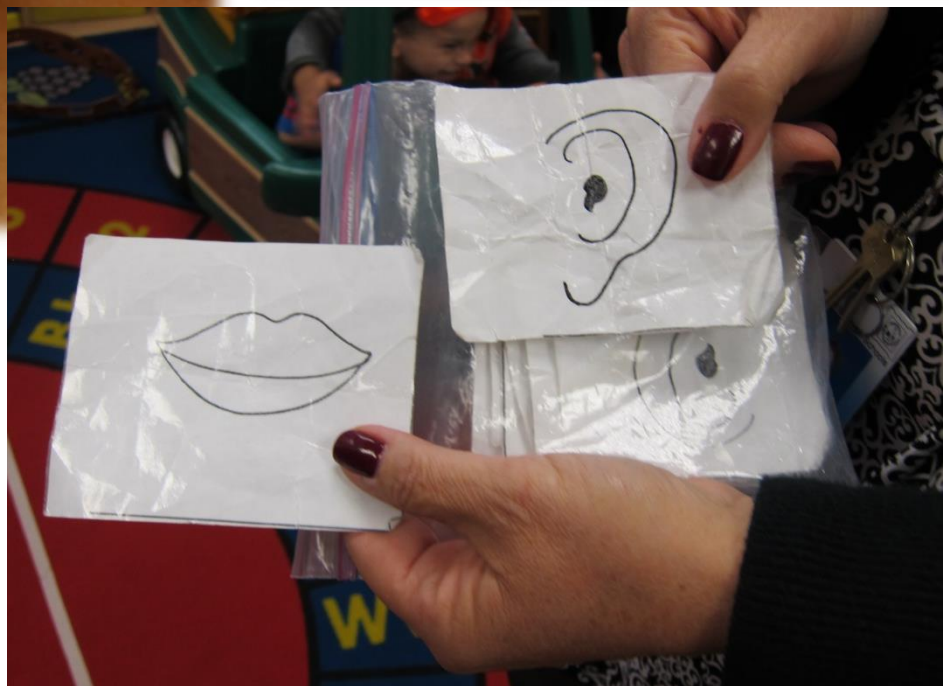
CHOICE BOARD FOR MULTIPLE INTELLIGENCES

Verbal/Linguistic • Write instructions • Keep a personal journal • Create a poem • Create TV ads • Read stories to others • Retell in your own words • Teach concept mapping • Create crossword puzzle 	**Logical/Mathematical** • Create a time line • Compare/contrast ideas • Create an outline for a story • Design a map • Decipher codes • Create patterns • Design a game to show... 	**Visual/Spatial** • Create a poster • Draw a map • Create visual diagrams • Draw from different perspectives • Create a comic strip • Graph results of a survey
Interpersonal • Tell stories • Teach a cooperative game • Role play a situation • Discuss and come to a conclusion • Survey or interview others 	Free Choice	**Body Kinesthetic** • Make up a cooperative game • Practice physical exercise • Conduct hands-on experiments • Construct a model or representation
Musical Rhythmic • Create raps • Play musical instruments • Write to music • Teach dance steps • Make up sounds and sound effects • Write a jingle • Create rhymes that... 	**Naturalist** • Collect and categorize data, materials, or ideas • Discover or experiment • Take a field trip • Study means of survival • Adapt materials to a new use • Label and classify 	**Intrapersonal** • Keep a personal journal • Write about personal experiences • Think about and plan... • Review or visualize • How would it feel to... • Imagine and write about the future

Task Card

Task Card
Corner
Task
Cards

Sort and count the items in the table. Which is the least?
K.MD.B.3, K.CC.C.6



Think dots

Think Dots

Probability and Statistics

Argue it Make an argument for which graphing method is the easiest to read: pie charts, stem-and-leaf plots, bar graphs, or line graphs. Construct a visual model to show us why.	**Conduct a survey** Choose a random sample of n= 15 students from this class and conduct a survey of their favorite sports team/food rock/ star/etc. (your choice1). Describe how you arrived at your random sample, and create a data display of your results.
Use it Is there such a thing as a truly *random sample?*	**Define it** What is a random stratified sample? When would you use it?
Evaluate it Look at today's USA newspaper's opinion poll. What type of graph is it using to display its results? Do you feel that the data display is accurate or misleading?	**Plot it** Plot the distribution of scores from last year's final exam (get the scores from the teacher—sorry, all names have been removed!)

Think Dots Addition Emerging - Set 3

Lesson / Concept: Addition
Differentiated by: 2nd grade Teachers

Level / Interest / Learning Style: Emerging

Activity 1 Using **the counting on** strategy (5.1)

1. **Make 2 spinners.**

2. Place a tape number line on the floor.
3. One partner spins pointer "**A**" and calls out the number. (5) The other partner starts at zero and advances to that number on the number line.
4. The first partner then spins pointer "B" and calls out the number. (3) The other partner says the number he or she is standing on, then **counts on** (3), advances that many spaces, and says the number he or she is standing on. (8) Partners reverse roles and continue the activity.

Activity 2 (5.2)

Using the doubles and doubles plus one strategy

1. Make a T-Chart. Label one side "Doubles" and the other side "Doubles Plus One."
2. Write a doubles fact and the left side. Then write the **doubles plus one** fact on the right side. Find the sum for both.

Doubles	Doubles Plus One

Activity 3 (5.3)

Using your making a ten strategy

1. **Make two spinners.**

2. One partner spins the pointers on both spinners and writes the addition fact.
3. The other partner uses the counters and the ten frame to find the sum using the ***make a ten*** strategy.
4. Partners then switch roles to repeat the activity several times.

Activity 4 (5.4)

Using your add 3 numbers strategy

1. Have partners choose three cards with pictures of foods they would choose as snacks.
2. Have one partner add ***the add 3 numbers*** to find the total cost of the three snacks, using strategy. Tell the other partner to use dots for the cost of each snack, and then count the dots to find the sum.

Activity 5 (5.5)

Using the problem solving strategy draw a picture

1. **Draw** a picture of a street scene showing people and cars. One partner counts the cars and uses red connecting cubes to model the number.
2. The other partner counts the people and uses blue connecting cubes to model the number.
3. Have partners join the connecting cubes and count them to **find the sum** of people and cars.

Activity 6

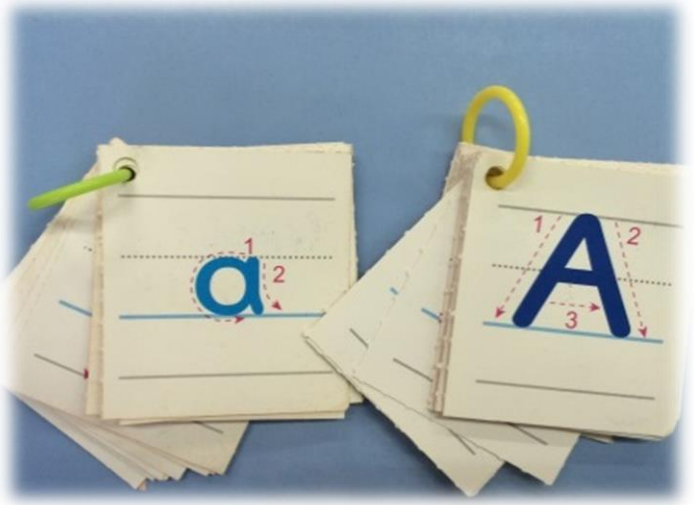
Using the strategies you learned to add

1. **Explain** how to add 7 + 3 + 5 = ___.
2. **Draw** a picture to show the problem and answer.

Adventure Tic-Tac-Toe Board

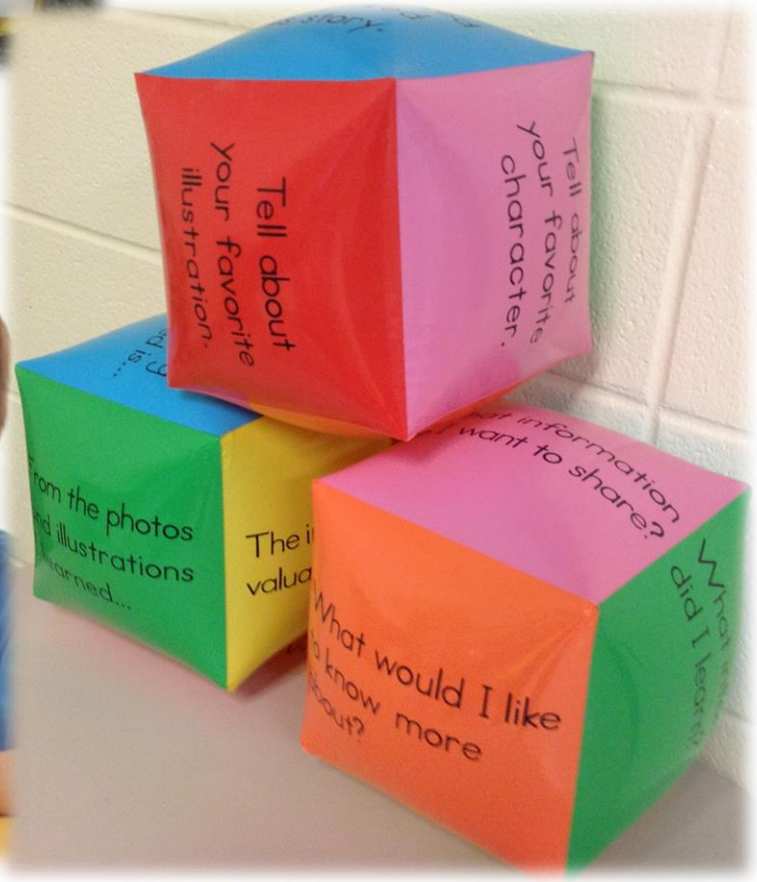
Newspaper (Word Smart) Create a newspaper with at least five articles based on your book. You can choose to write an informational article on the setting, an advertisement for the adventure, an editorial or opinion piece, etc. Your layout should be similar to a newspaper.	**Map-It** (Math Smart) Create a map showing the setting (or route) taken by the main character in your book during his/her adventure. Identify and describe at least five events from the book and place the description on the map in the appropriate place.	**Mural** (Art Smart) Create a mural depicting important part so of your book. Use a large sheet of paper for your mural and be sure to cover the paper (mural style). You will need to include a written description (at least 4-5 sentences) describing your mural.
Interview (People Smart) Determine a moral/ethical issue your main character was faced with on their adventure. Determine five questions you could ask to find out what friends and family might have done in the same situation. Interview three people using the five questions. Hand in the answers and a 4-5 sent. summary of your findings.	FREE CHOICE	**Mobile** (Body Smart) Create a mobile (using at least 5 cards and a hanger) depicting major events in your story. On one side of the card, describe what happened during this major event and on the other side create a picture showing the event. Be sure the events you choose represent the beginning, middle and end of the story.
Plot Poem (Music Smart) Create a poem that describes each of the following literary elements from your book: Character(s), Setting, Conflict/Resolution, and two different events for a total of five poems. Place the poems into a book form with a cover page including the title and author of the book.	**Author Research** (Nature Smart) Investigate how the author came up with the idea for this story. What research did he or she have to do to write the book? Take your research and create visual display to share your findings. This can be in the form of a poster, a PowerPoint, etc.	**Flip Book** (Self Smart) Create a flip book with the following pages: Title + Author, Characters, Setting, Conflict/Resolution, Plot, and Critique. Use words and pictures to describe each of the following literary elements on the appropriate page of the flip book.

Tic-tac-toe board

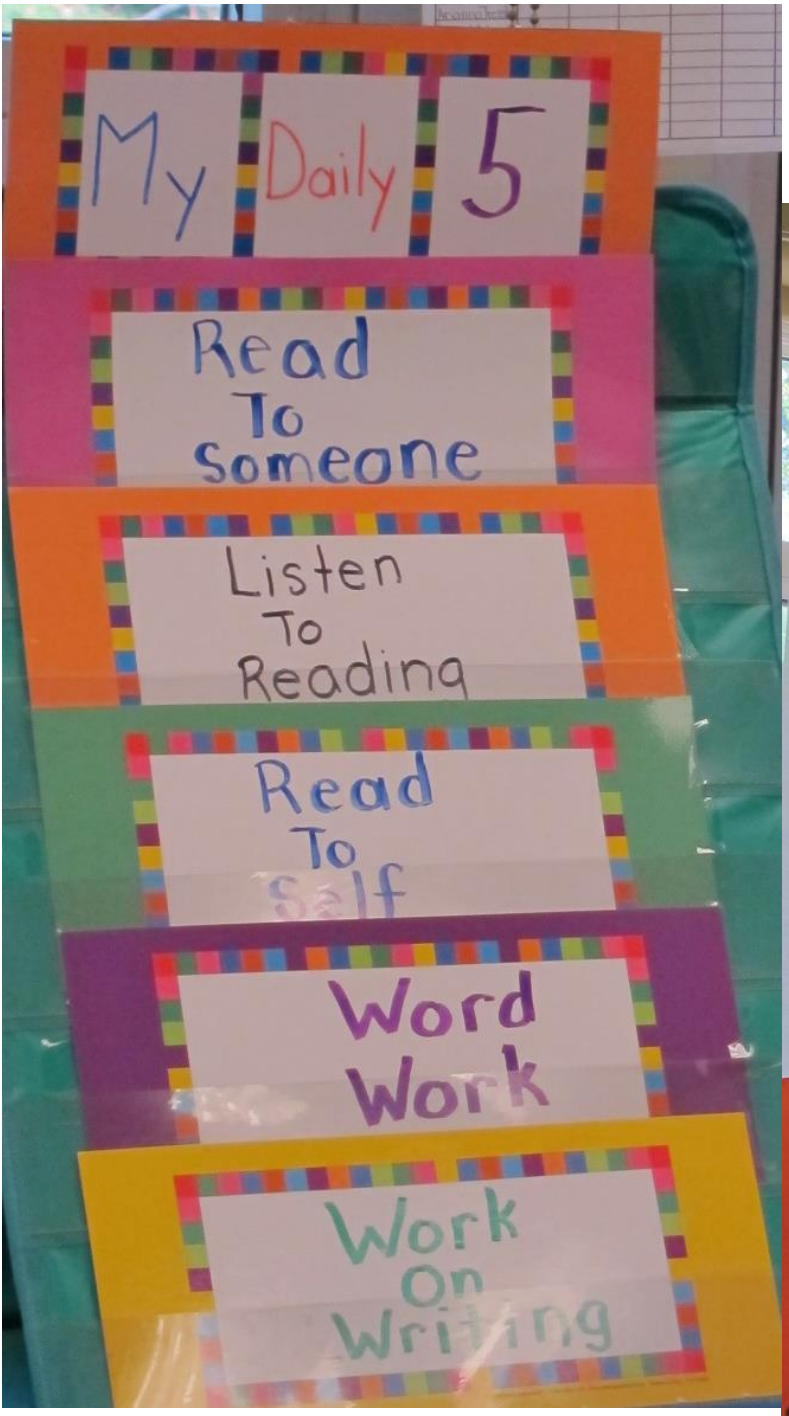


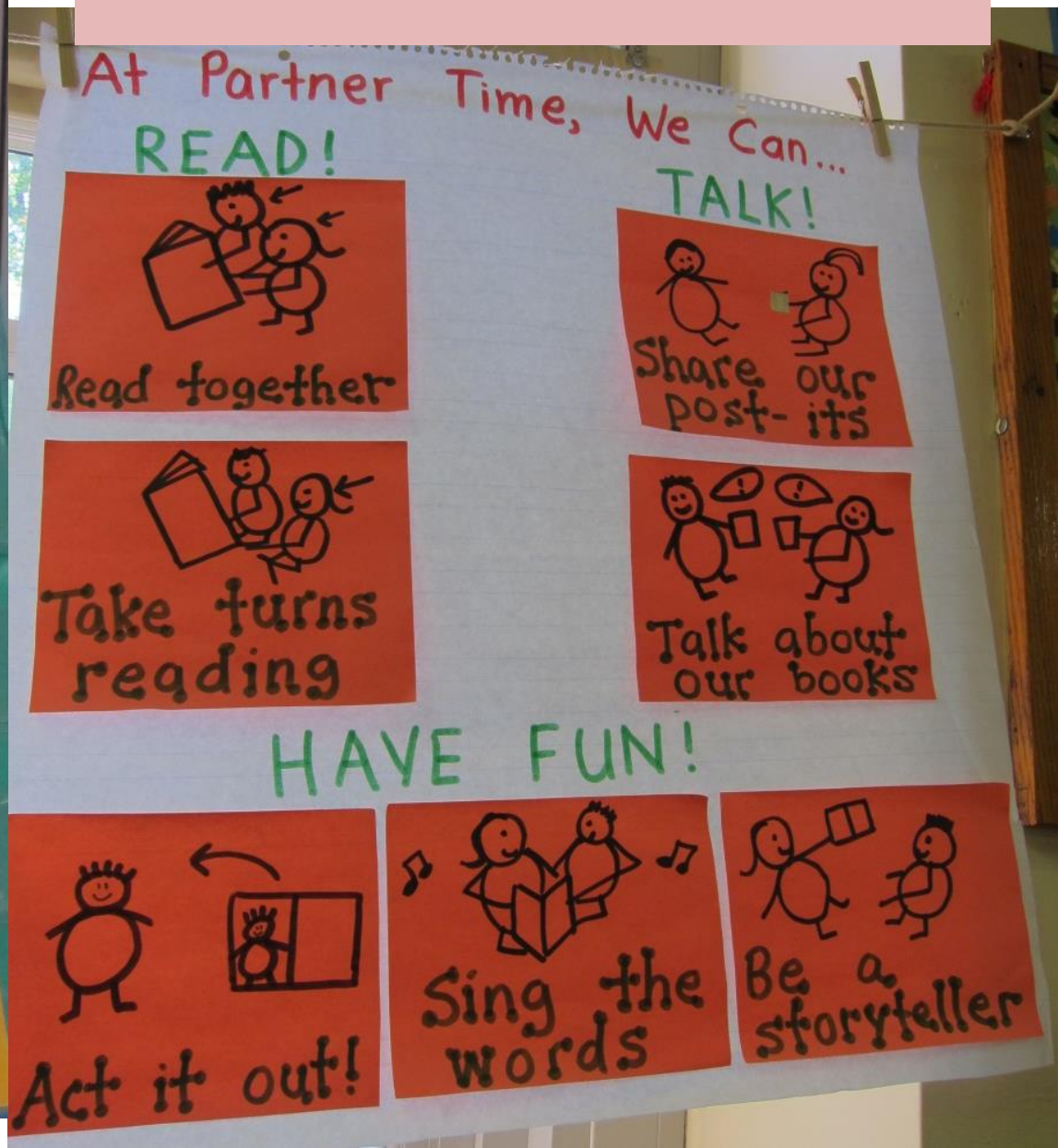
Cube

Sing on Text
Sing text while clapping the rhythm
Sing on Solfa


Tell about your favorite character.
Tell about your favorite illustration.
What would I like to know more about?

Reading for DI





Reading for DI

Literature circle

Literature Ci

Discussion Director

Your job is to write a list of questions that your group might want to discuss about this part of the book. The best questions will come from your own thoughts, feelings, and ideas about this section of the book.

Connector

Your job is to find connections between the book you are reading and the outside world. This means connecting what you read with your own life, to what happens at school or in the community, to similar events at other times and places, or to other people or problems.

Summarizer

Your job is to prepare a summary of the reading. Don't tell the whole story, just focus on the important parts.

Vocabulary Enricher

Your job is to look for a few important words in your reading. If you find words that are puzzling or unfamiliar, mark them down while you are reading. Later, you can look them up in a dictionary and write down their definitions.

Illustrator

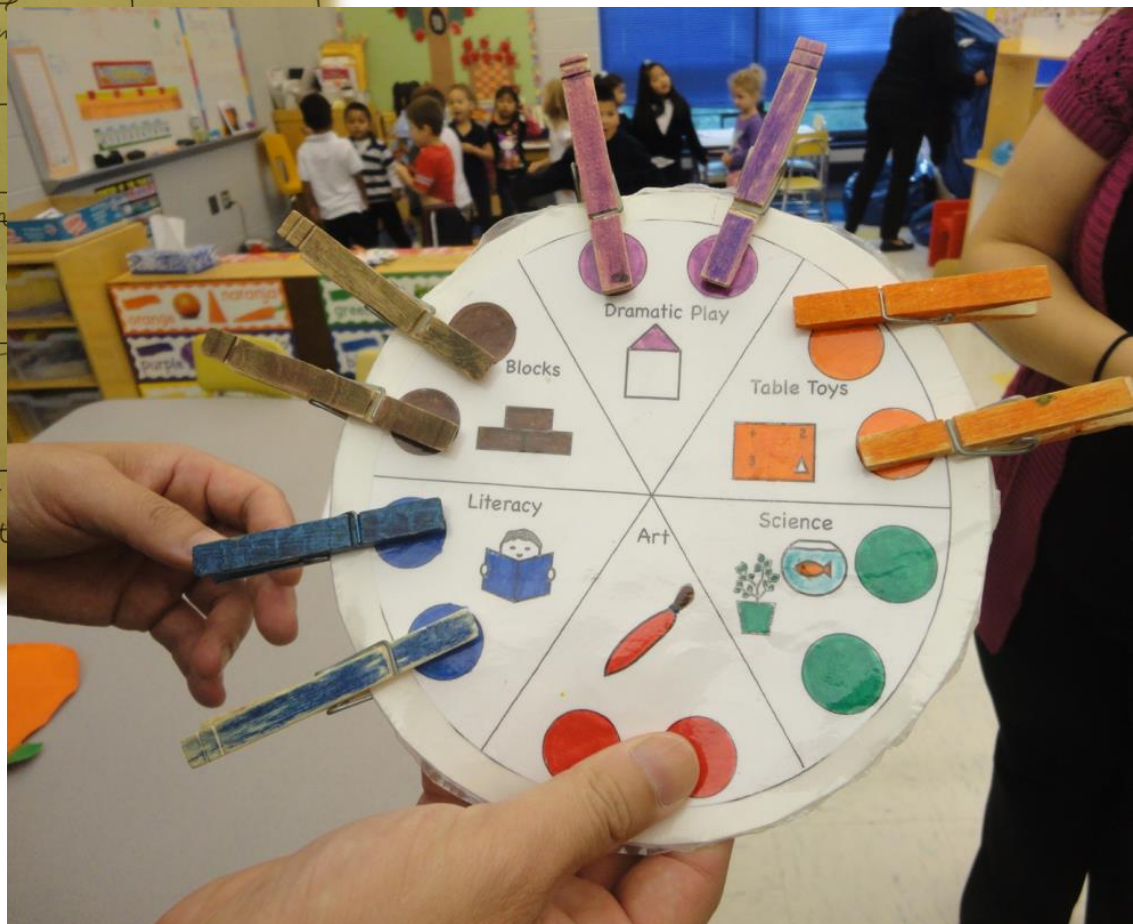
Your job is to draw some kind of a picture related to what you read in your section. It can be a sketch, cartoon, diagram, or stick figure scene. It can be about something that you read, something that the reading reminded you about, or an element of the story (plot, character, setting).

Station learning

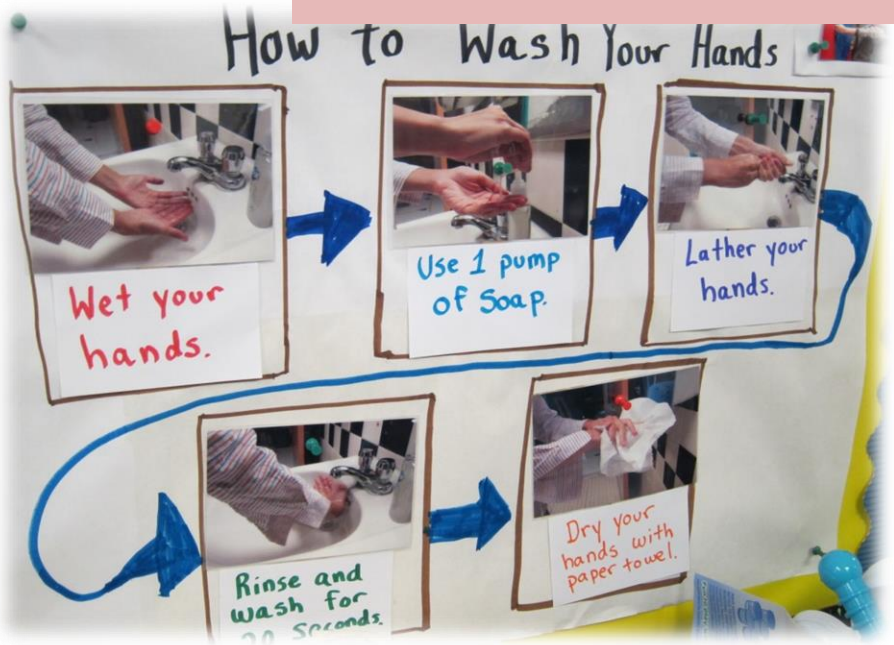
Name _____ Date _____

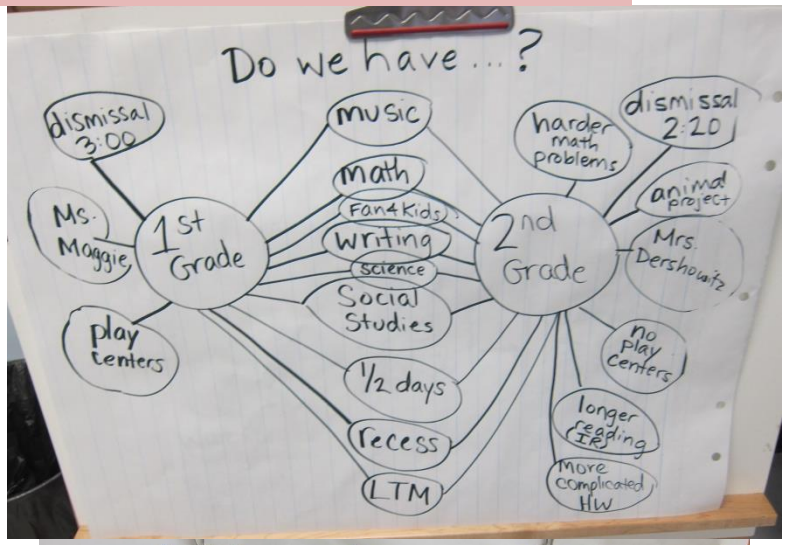
Chemical vs Physical Changes Lab Stations

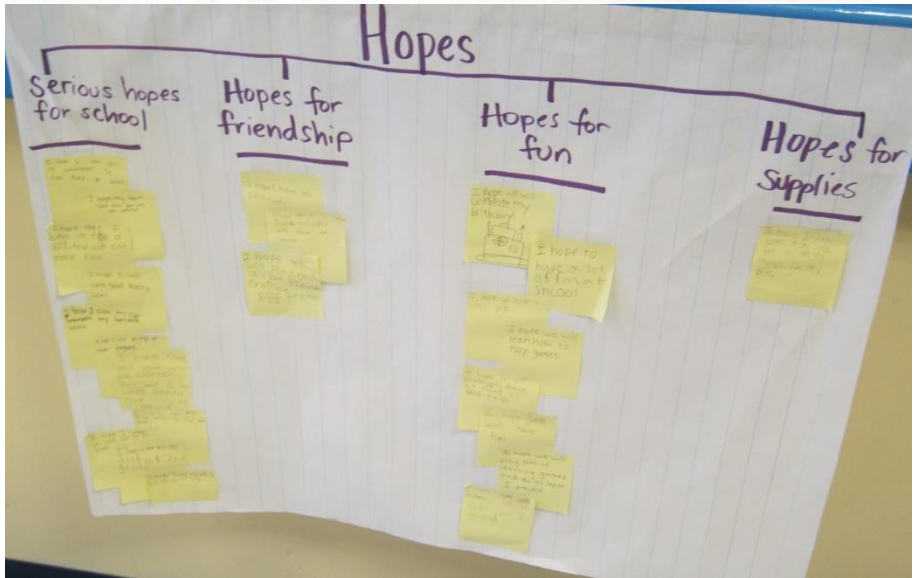
	Physical or Chemical Change	Explain observation	Is the change reversible
Station A	Nail Polish Halloran	1. apply nail polish to clean piece of paper 2. glu-sticks {1- Take one and blend it	
Station B	Tart Warmer	1. observe the tart before 2. " after 3.	
Station C	leaves	1. observe the leaf before 2. " after 3.	
Station D	pumpkin	carve	Station D: pumpkin 1. observe the 2. record your
Station E	Strike the match		
Station F	Alka Seltzer	1. Take a piece of Alka- and place in wat	

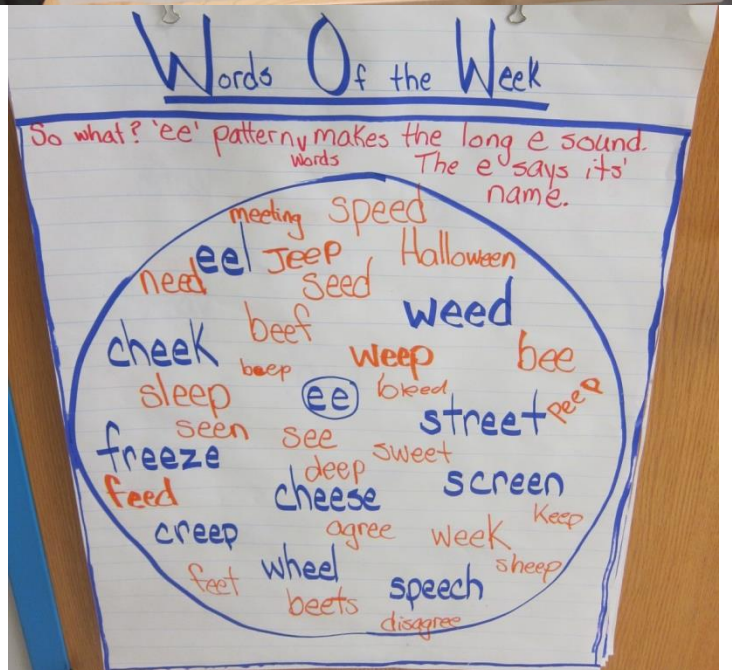


Graphic organizer

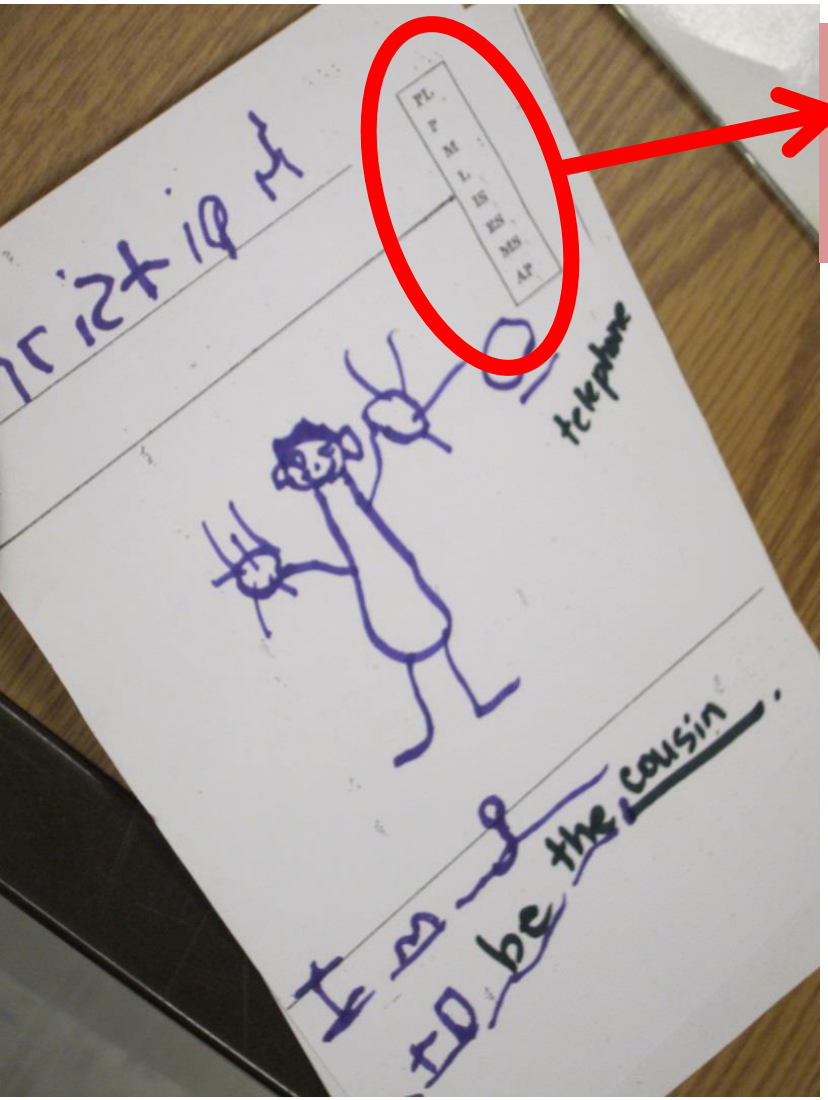








Quick assessment tools



ongoing assessment

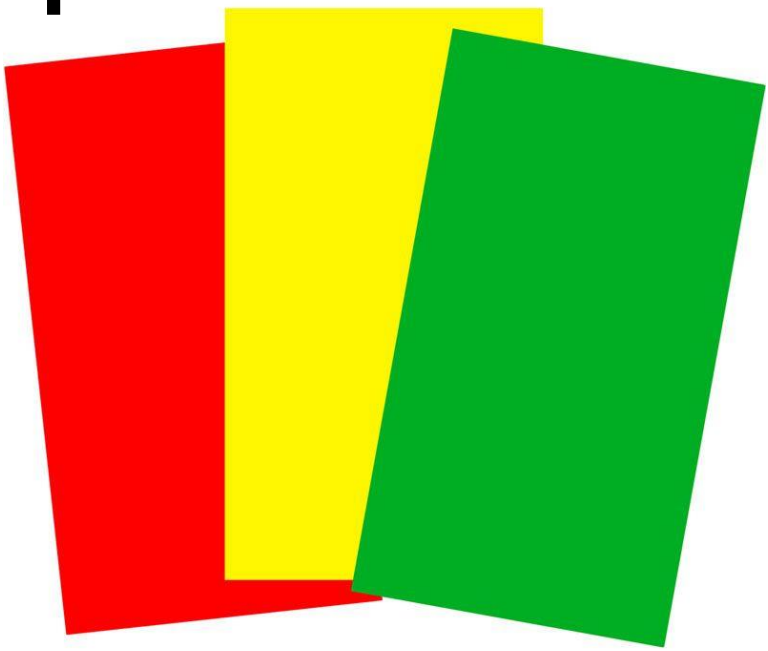
whiteboard

Quick assessment tools

Red→ Stop and need help

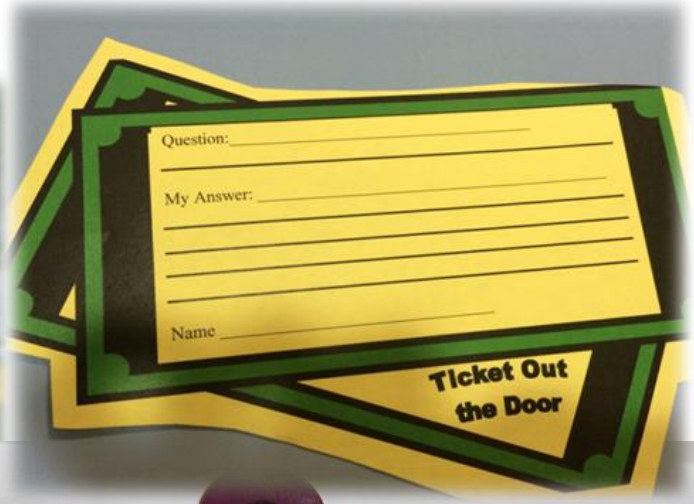
Yellow→ I'm doing OK

Green→ I understand your talking

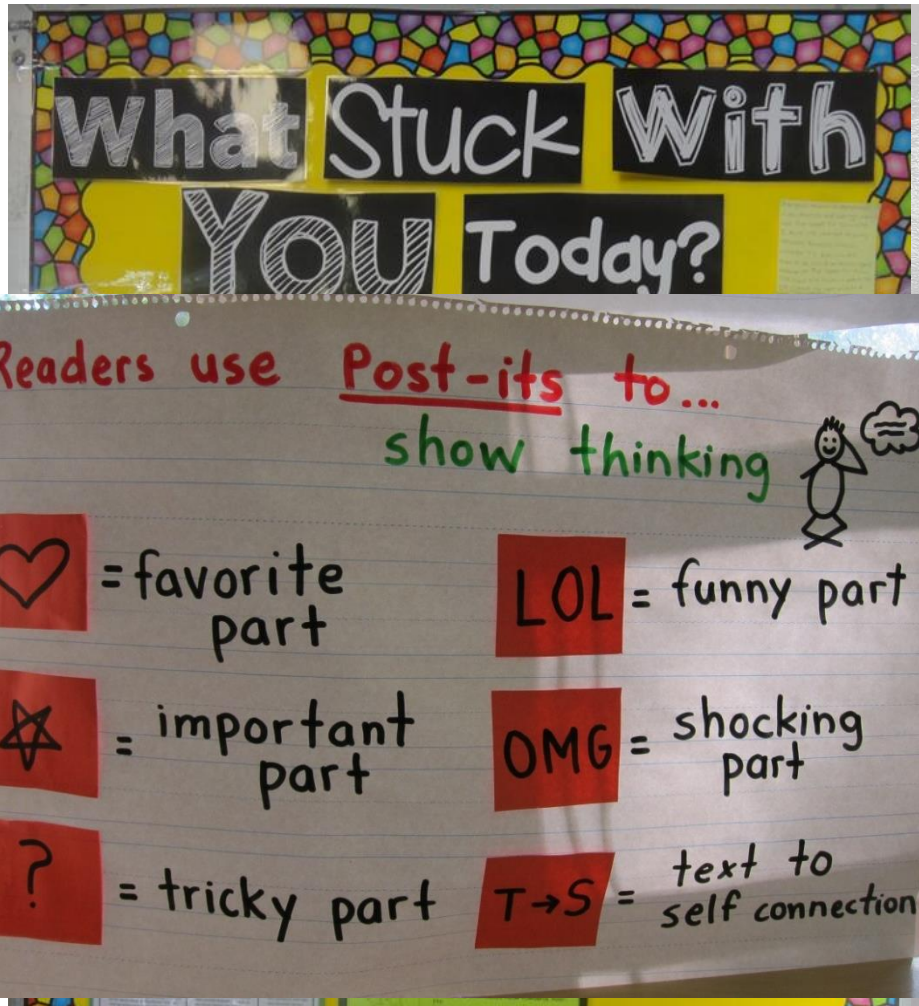


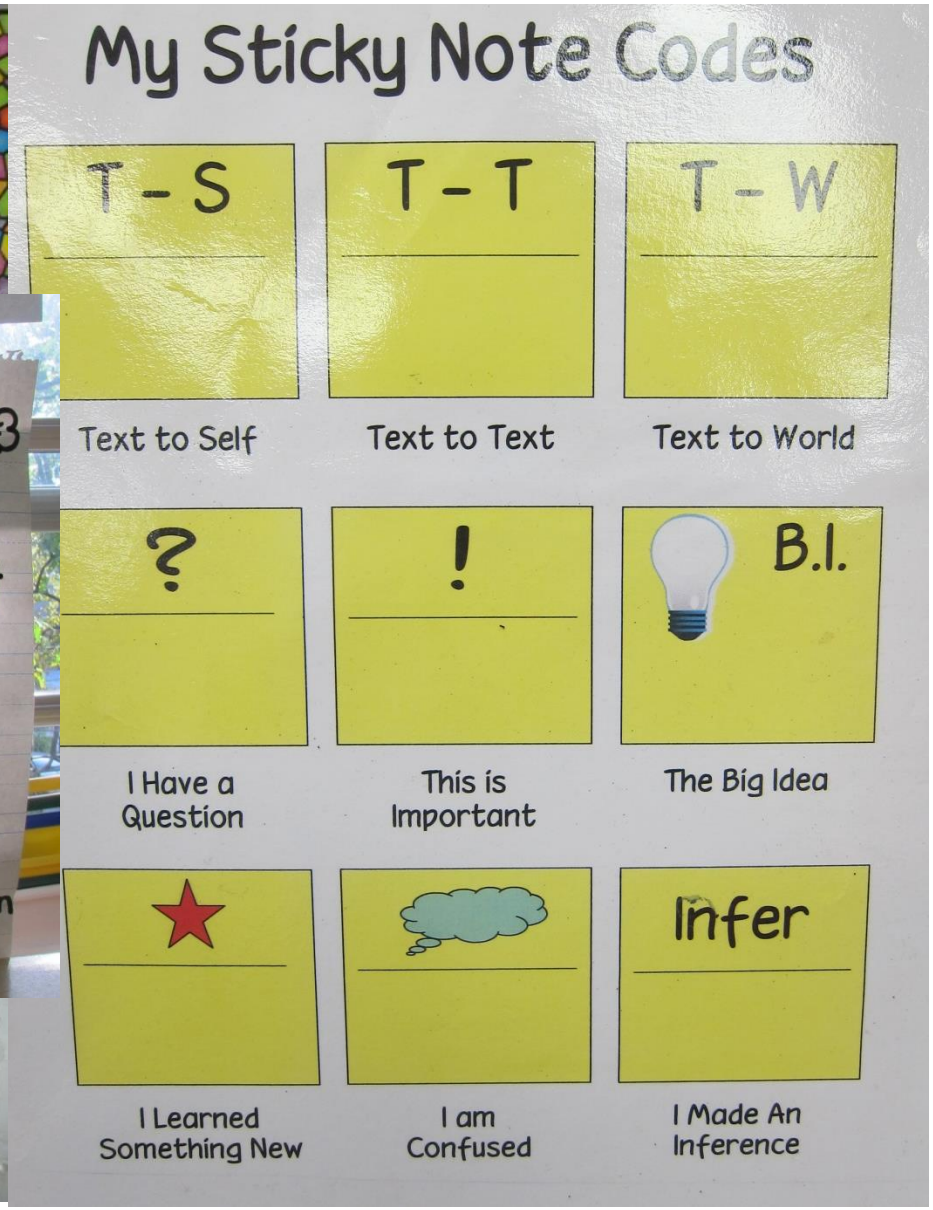
Index card

Self assessment

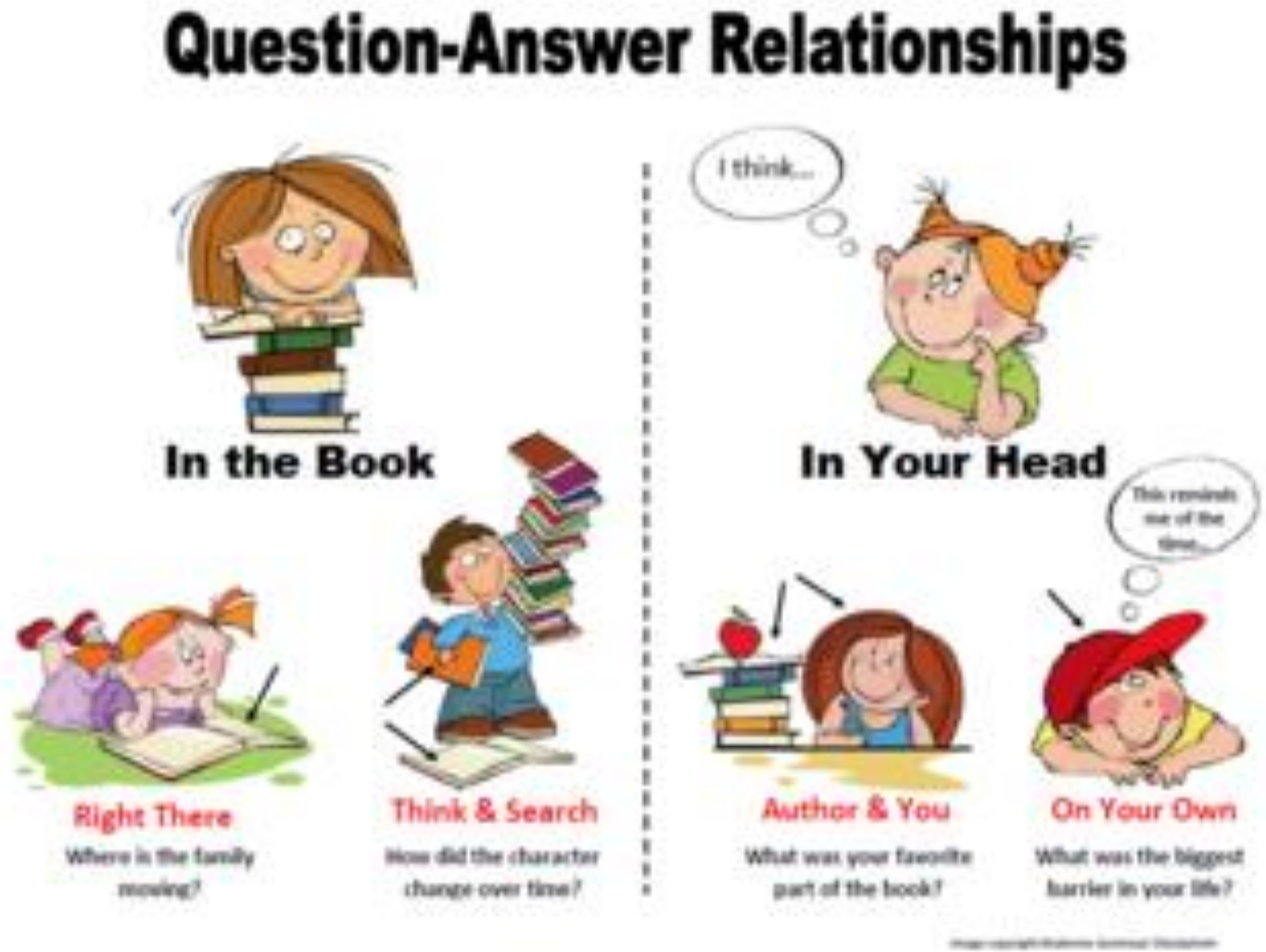


Self assessment

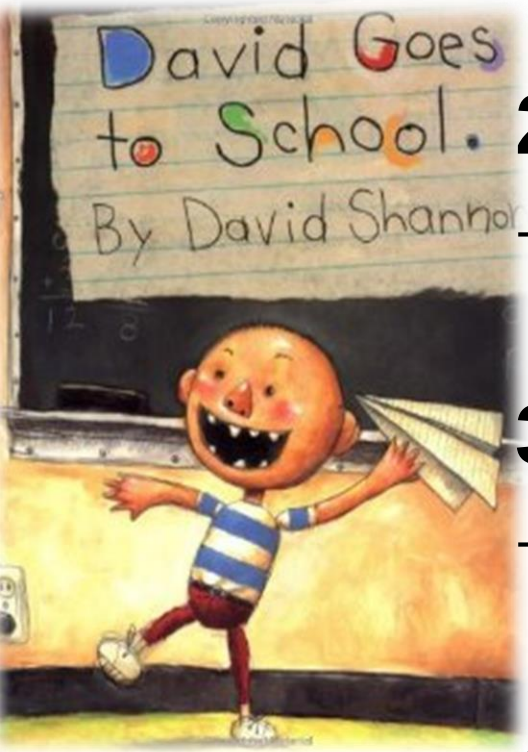




The question–answer relationship (QAR) strategy



QAR for *David Goes to School*



1. Right there

→ What did the teacher ask David to do after school?

2. Think and search

→ How did David's classmate feel? Why?

3. On my own

→ Are you a good boy or girl in your class?

4. Author and me

→ Do you think the teacher is angry at David?

My DI classroom

Task card

Meet students' needs

Respect

Implementing ideas

Lesson agenda

Word wall

Graphic organizer

If children do not learn the way we teach them, then we must teach them the way they learn.

THANKS FOR LISTENING