

Home Connections: Engaging Families Through Bilingual Math Activities

Justin Johnson
Portland Public Schools
jmjohnson@pps.net

I put a _____ on the big hexagon.



triangle



rhombus



trapezoid



hexagon

The Homework Connection: Engaging Families in Classroom Academic Language Through Bilingual Math Activities at Home

Families want to participate with homework, but language can often be an obstacle. In this interactive workshop participants will define bilingual academic language support, explore its use during family-centered homework activities, and see it modeled during a video of families working together on math activities. This practical tool for students, families and teachers can bridge the language of school and home while simultaneously supporting biliteracy and academic success. The presentation highlights an asset-based view of what our Emergent Bilinguals bring culturally and linguistically to our classrooms.

*Participants will analyze the benefits of bilingual academic language supports use in the home.

*Participants will evaluate these practical tools and examine how to bridge the language of school and home simultaneously to support biliteracy.

*Participants will take away concrete ideas on how to implement academic language supports in core content areas in their classroom.

An example of bilingual homework language frames:

GR 2 Work Place 6C Language Frames

我放一个_____在这个大六角形上。



Triangle 三角形



Rhombus 菱形



Trapezoid 梯形



Hexagon 六角形

I put a _____ on the big hexagon.



triangle



rhombus



trapezoid

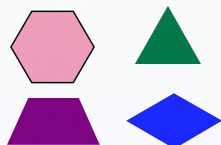
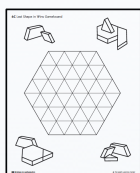


hexagon

An example of visual homework directions in English:





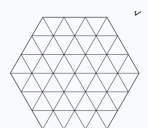



Gr 2 Work Place 6C Last Shape In Wins Simplified Directions

What you need:



- Pattern Blocks:
 - 10 hexagons
 - 20 trapezoids,
 - 20 triangles
 - 20 blue rhombuses
- A Last Shape In Wins gameboard

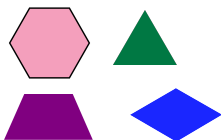
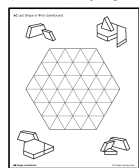
What to do:

1.  Find a partner.
2.  Get some pattern blocks and a gameboard.
3.  Decide who will go first and who will go second.
4.  Take turns placing the blocks on the gameboard.
5.  Each time it is your turn, you get to put one block anywhere on the gameboard you want.
6.  You may use any of the four shapes.
7.  You must take your turn every time, down to the very end.
8.  The object of the game is to be the person who gets to complete the big hexagon by fitting in the final shape.

An example of visual homework directions in Chinese:

Gr 2 Work Place 6C Last Shape In Wins Simplified Directions

你需要什么:



花样积木:

-10 个六角形

-20 个梯形

-20 个三角形

-20 个蓝色形

游戏板

游戏指示:

-  找一位伙伴。
-  拿一些积木和一个游戏板。
-  决定谁先放积木, 谁放后。
-  轮流把积木放在游戏板上。
-  每次轮到你的时候, 你都可以把一个积木放在游戏板的任何地方上。
-  你可用选者这四种形状里的任何一个积木。
-  到你的时候你必须放积木, 一直到最后。
-  谁能把最后一个积木放在游戏板上并且完成大六角形就是赢家。

“English Language Learners are the fastest growing group of students across the nation. Most states and districts lack a vision for ELL education that builds on families’ cultural and linguistic assets. They also mostly underfund ELL education and adopt primarily subtractive ELL approaches, in which students lose their first language and identity and are immersed in English-only environments. The role of ELL leaders in most states and districts is marginalized rather than elevated and is focused on compliance rather than asset and capacity building. ...We need to shift the paradigm by increasing the opportunities and choices for students and families to those that support the acquisition of academic English, while simultaneously developing the students’ native language and teach the students content.”

-Dr. Rosann Tung

(2013) *Innovations in Educational Equity for English Language Learners*

Annenberg Institute for School Reform



= **bold text**



= *italic type*

①



Why do you think that Rosann Tung wrote this?

I think she wrote it because _____.

②



What part of this statement resonates with you?
Why?



The part of the text that states, _____
resonates with me because _____.

③



How do we apply Dr. Tung's passage to our experience?

I think _____.



Focus on Language during Mathematics Games –

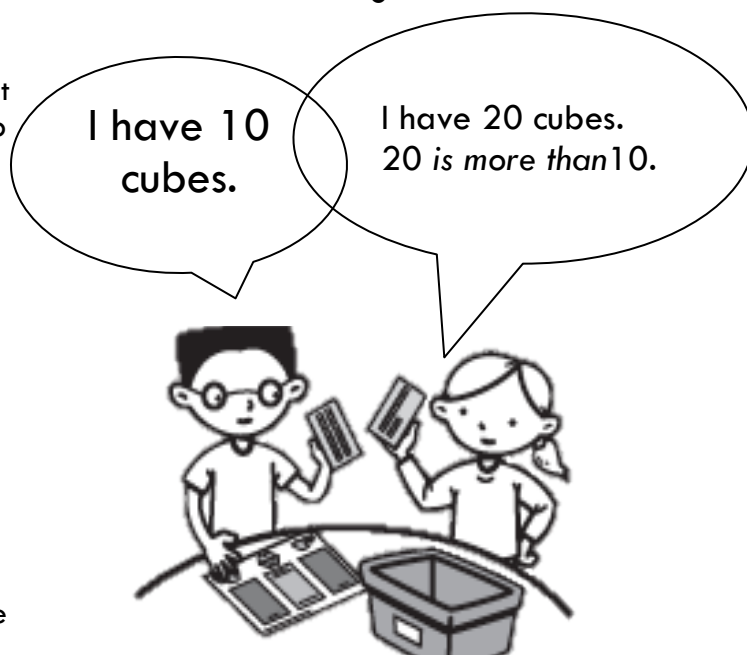
an excerpt from Achievement Inspired Mathematics for Scaffolding Student Success...

Many mathematics programs include games that students play to reinforce concepts and develop automaticity. We typically model for students how to play the game, but we also need to teach students the language they should be using while playing. This includes phrases like “It’s your turn,” “Roll the dice,” or “It’s time to clean up.” It’s also essential to teach students the academic language that goes with the specific game. This could include sentences like “The 3 is in the hundreds place,” or “Nine is a larger product than six,” or “Twelve is a multiple of six.”

Recently a first grade class was playing *Top-it* (*Everyday Math*) to work on the concept of more and less. Students play with partners. Each partner chooses a card. The person with the highest card adds both cards to their pile. Typically, students flip through the deck very quickly and what you hear is “I win,” or “You get the cards.”

In this classroom, when the teacher modeled the game, she also taught the students the words **more or less** and the frames **___ is more than ___ and ___ is less than ___**. Each student needed to use one of these frames to describe their cards before the round was over. While students were playing, the teacher circulated to reinforce the language they were using and to model when necessary.

Including a language focus in the lesson elevates all students’ language and gives them multiple opportunities to practice these essential mathematical structures. It is very important that the teacher set an expectation that all students will use this language. It has to be an integral part of playing the game. Then the teacher can positively reinforce the use of high academic language by highlighting students using it. For example, “I just heard Kayla say ‘Seven is more than five,’ and Miguel said ‘Three is less than five.’ That is the mathematical language we want to hear!”



Teacher and students review the game together:

T - What word will we hear every time that you have the low card during Top-it?

S - Less

T – What would we say with these two cards? (points to five and ten)

S and T – Five is less than ten.

T – Let’s say it again.

S – Five is less than ten.

T – What word will we hear every time you have the high card?

S – More.

T – What would you say with five and ten? (pointing)

S – Ten is more than five.

T – Here’s a challenging one. What would you say if you have five and five? (pointing)

S – The same.

T – They are the same. We can say five is equal to five or they are equal. Say that with me.

S and T – Five is equal to five. They are equal.

T – Great. When you are playing today, our goal is to use that language every time.

Steps toward Engaging Families in the Academic Language of the Classroom:

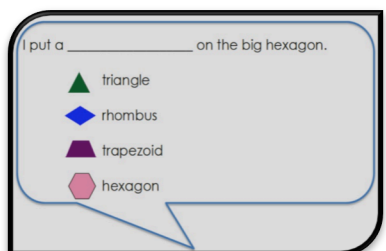


An Equitable Lens



Teacher Professional Development and Resources that Support Language Learning in Core Content Areas:

www.sentenceframes.com



Language Frames and Visual Homework in Multiple Languages



Opportunities for Families to Learn about the Provided Resources



Collaboration Between Departments