MAKING SENSE OF ILLPS AND MATH

OELAS Conference, 2014

Objectives:

- Review the ILLP with a focus on the completion and implementation of Attachment A
- Select performance indicators from the English Language Proficiency Standards: ***Listening & Speaking Domain*** and **the Language Strand-Standard 2** that connect to math lessons/instruction
- Learn instructional strategies on how to support English Language Learners (on an ILLP) in the in a math classroom (through the Oral English Conversation and Vocabulary allocation)

Required ILLP Documentation

There are THREE required documents that must be completed.

1. Individual Language Learner Plan (ILLP) Document
2. Attachment A
3. Attachment B

Individual Language Learner Plan (ILLP) – Attachment A

*Student Name:	*SAIS ID #:		*AZELLA Overall Proficiency Level: *AZELLA Date:		
*ILLP Teacher Signature/Date:	*ILLP Teacher Signature/Date:		*ILLP Teacher Signature/Date:	*ILLP Teacher Signature/Date:	
***Required ILLP Areas**	***Time Allocation**	***Teacher Responsible For Instruction**	***Teacher Highly Qualified***	***ELP Standards and Performance Indicators to be Covered**	***Target Date**
*Oral English/Conversation and Vocabulary	*60 minutes		Y N		
*Reading	*60 minutes		Y N		
*Writing	*60 minutes		Y N		
*Grammar	*60 minutes		Y N		

Revised: June 2013 * Indicates required information to be included Original Document placed in student's cumulative file.

** Indicates if content Highly Qualified / specify content area Copy to identified ILLP classroom teacher(s)

Attachment A

- This document is completed and signed by all teachers responsible for instruction on the ILLP
- ELP Standards and Performance Indicators must be identified for each time allocation.
  - ✓ It is recommended that each ILLP area address four to five Performance Indicators selected for each quarter
  - ✓ Goal should be achievement of Performance Indicators at the High Intermediate proficiency level
  - ✓ The result of a collaborative effort between teachers on the ILLP
- Document the ELPS from Attachment A that are being used to differentiate instruction.
  - ✓ Document in lesson plans or elsewhere in the classroom
  - ✓ Document daily or weekly
  - ✓ Use coding and write out the Performance Indicator

ILLP Team

First Steps…

- Decide on what class or which teacher will be responsible for each of the time allocations.
  - This could be divided in numerous ways depending on students and schedules.
- Begin creating a plan.

1. What are the long range plans for your content?
2. What standards will you be teaching in your content?
3. How could you incorporate the following into your content?
   - Reading?
   - Writing?
   - Oral Conversation/Vocabulary?

Quarter (Grading Period) 1	
Language Arts	Grammar
Math	Oral English Conversation/Vocabulary
Science	Writing
Social Studies	Reading

At the end each of quarter or grading period…

- The team will review and revise the goals in the ILLP(s).
- The team may choose to change the responsibility of the allocations based on schedule changes or long term plans.

Time Allocations
for all Grades and All Proficiency Levels

Time Allocation	Oral English/ Conversation AND Vocabulary 60 minutes	Grammar 60 minutes	Writing 60 minutes	Reading 60 minutes
Standards to Use	**Listening & Speaking Domain** AND **Language Strand** Standard 2 •Vocabulary	**Language Strand** Standard 1 •Standard English Conventions	**Writing Domain**	**Reading Domain**

Listening & Speaking Domain

Standard 1 (Receptive Language)	Standard 2 (Productive Language)
Distinguishing phonemes (sounds)	Articulating phonemes (sounds)
Summarizing main ideas	Reciting poems, chants, tongue twisters
Sequencing information	Expressing needs
Responding to discussions	Socio-functional communication
Following directions	Asking and answering questions
	Stating directions

Language Strand

Standard 2 (Vocabulary)	
Sight words	Multisyllabic Words
High frequency words	Multiple Meaning & Related Words
Academic & Content Vocabulary	Synonyms, Antonyms, & Analogies
Morphology (Word Parts)	Figurative Language

Stages (Grade Band)

- ELL I corresponds to Kindergarten
- ELL II corresponds to grades 1-2
- ELL III corresponds to grades 3-5
- ELL IV corresponds to grades 6-8
- ELL V corresponds to grades 9-12

Organization

Stage: ELL Stage IV: Grades 6-8

Standard: Language Strand — Domain / Strand

Concept: Vocabulary

Proficiency Levels

Performance Indicators

Standard 2: The student will acquire English language vocabulary and use it in relevant contexts.				
Pre-Emergent	Emergent	Basic	Low Intermediate	High Intermediate
PE-1: naming and grouping labeled objects and pictures into given conceptual categories. (math, science, social studies)	E-1: reading and classifying common words into conceptual categories. (math, science, social studies)	B-1: reading and classifying words into conceptual categories and providing rationale for classification with instructional support. (math, science, social studies)	LI-1: reading and classifying words into conceptual categories and providing rationale for classification. (math, science, social studies)	HI-1: reading and classifying words into conceptual categories and providing rationale for classification. (math, science, social studies)
PE-2: repeating and recognizing sight words. (math, science, social studies)	E-2: recognizing sight words. (math, science, social studies)	B-2: identifying the meaning/usage of sight words and applying in context. (math, science, social studies)	LI-2: identifying the meaning/usage of sight words and applying in context. (math, science, social studies)	HI-2: identifying the meaning/usage of sight words and applying in context. (math, science, social studies)
PE-3: repeating and recognizing high frequency words. (math, science, social studies)	E-3 recognizing and identifying the meaning of high frequency words with instructional support. (math, science, social studies)	B-3: identifying the meaning/usage of high frequency words and applying them in context. (math, science, social studies)	LI-3: identifying the meaning/usage of high frequency words and applying them in context. (math, science, social studies)	HI-3: identifying the meaning/usage of high frequency words and applying them in context. (math, science, social studies)

Progression of Skills

- Progression of Skills across Proficiency Levels
  - Complexity of task
  - Varied level of teacher support

PE-13: determining the meaning of words using visual support. (math, science, social studies)	E-13: determining the meaning of words using word parts and context clues. (math, science, social studies)	B-13: applying knowledge of words in context to determine meaning of grade-level content words. (math, science, social studies)	LI-13: analyzing grade-level content words in context to determine meaning with instructional support. (math, science, social studies)	HI-13: analyzing grade-level content words in context to determine meaning. (math, science, social studies)

Instructional support within the Performance Indicators refers to the use of various strategies in order to assist a learner who is not ready to complete a task independently.

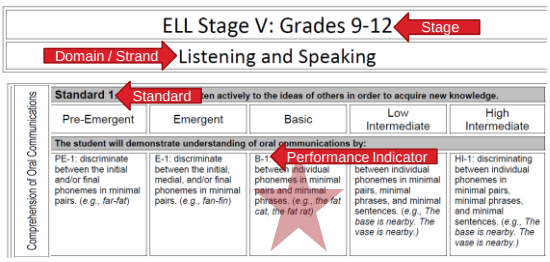
- ✓ sentence frames
- ✓ graphic organizers
- ✓ echo reading
- ✓ cloze activities

Content areas of Math, Science, and Social Studies are referenced where the specific Performance Indicator lends itself well to using these materials.

Citing the Standards

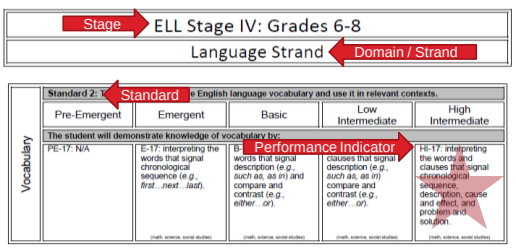
- The *Listening & Speaking* domain and the *Language Strand - Standard 2* are coded the same.

  Stage - Domain/Strand - Standard # :PI



Stage - Domain/Strand - Standard # :PI

V - LS -1: B-1



Stage - Domain/Strand - Standard # :PI

IV - L - 2: HI-17

Choosing ELPS for the ILLP

1. AZCCRS Math Content Standards
   - What am I teaching this quarter?
2. ELD Strategies in Mathematics
   - What are some ways I can support English language development in the Math?
3. Mathematical Practices
   - Which mathematical practices can I connect to the above strategies?
4. ELPS
   - Which ELPS encompass the identified mathematical practices?

1. AZCCRS

Domain:
Ratio and Proportional Reasoning

Cluster:
Analyze proportional relationships and use them to solve real-world and mathematical problems

Standard (7.RP.A.1) :
Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.

2. ELD Strategies in Math

- Grouping Structures
- Understanding the Problem
- Writing Problems
- The Language of Mathematics
- Graphic Organizers
- Word Walls
- Modeling of Think-Alouds
- Learning Journals
- Academic Language Scaffolding
- Directed Reading-Thinking

Mathematical Practices

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and critique the reasoning of others
4. Model with mathematics
5. Use appropriate tools strategically
6. Attend to precision
7. Look for and make use of structure
8. Look for and express regularity in repeated reasoning

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1. Make sense of problems and persevere in solving them 6. Attend to precision	2. Reason abstractly and quantitatively 3. Construct viable arguments and critique the reasoning of others	**Reasoning and explaining**
	4. Model with mathematics 5. Use appropriate tools strategically	**Modeling and using tools**
	7. Look for and make use of structure 8. Look for and express regularity in repeated reasoning	**Seeing structure and generalizing**

3. Mathematical Practices

Grouping Structures	General Problem Solving
Understanding the Problem	MP 1. Make sense of problems & persevere in solving them
Writing Problems	MP 2. Reason abstractly and quantitatively
The Language of Mathematics	MP 6. Attend to precision
Graphic Organizers	
Word Walls	MP 6. Attend to precision
Modeling of Think-Alouds	MP 6. Attend to precision
Learning Journals	MP 3. Construct viable arguments & critique the reasoning of others
Academic Language Scaffolding	MP 6. Attend to precision
Directed Reading-Thinking	Literacy in Mathematics

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Mathematical Practice 1

Make sense of problems and persevere in solving them

- *Explain* the meaning of the problem
- *Plan* a solution pathway
- *Determine* if the solution is reasonable and accurate
- *Explain* correspondences among models, pictures, diagrams, equations, verbal descriptions, tables, and graphs

Mathematical Practice 3

Construct viable arguments and critique the reasoning of others

- *Explain* the reasoning underlying a strategy, solution, or conjecture
- *Arguments* may rely on definitions, previous results, properties, or structure
- *Present* your arguments
- *Articulate* and *Justify* generalizations
- *Listen to* or *Read* arguments of others. Ask questions to clarify or improve the argument.
- *Communicate* their arguments, *compare* them to others as well as *respond* to the critiques of others

Mathematical Practice 6

Attend to Precision

- *Formulate* precise explanations
- *Use* math vocabulary
- *Use* appropriate labels to *communicate* the meaning of the representation
- *Record* their work

3. ELPS

MP 1. Make sense of problems & persevere in solving them

MP 3. Construct viable arguments & critique the reasoning of others

MP 6. Attend to precision

Listening & Speaking

V-LS-1:HI-7: offering and justifying opinions and ideas in response to questions and statements in academic discourse.

V-LS-1:HI-9: requesting specific details, examples, and information to clarify ideas and concepts.

V-LS-2: HI-5: asking and responding to academic questions (i.e., agreeing/ disagreeing with others, expressing probabilities, hypothetical questions, etc.) in complete sentences.

Vocabulary

V-L-2: HI-4: explaining the meaning and usage of grade-specific academic vocabulary and symbols.

V-L-2: HI-8 stating the words represented by abbreviations in context.

V-L-2: HI- 20: identifying and applying cross-categorical academic vocabulary. (*e.g., describe, explain, evaluate, paragraph*)

Individual Language Learner Plan (ILLP) – Attachment A

*Student Name: Charlie Brown	*SAIS ID #: 1234567		*AZELLA Overall Proficiency Level: Intermediate *AZELLA Date: 02/16/2014		
*ILLP Teacher Signature/Date: Mr. Wizard	*ILLP Teacher Signature/Date:		*ILLP Teacher Signature/Date:	*ILLP Teacher Signature/Date:	
***Required ILLP Areas**	***Time Allocation**	***Teacher Responsible For Instruction**	**Teacher Highly Qualified**	***ELP Standards and Performance Indicators to be Covered**	***Target Date**
*Oral English/Conversation and Vocabulary	*60 minutes	Mr. Wizard	Y N	IV-LS-1:HI-8: offering and justifying opinions and ideas in response to questions and statements in academic discourse. IV-LS-1:HI-9: making inferences and drawing conclusions using evidence from content area presentations and discussions. IV-LS-2: HI-6: making predictions and inferences about academic content using complete sentences. IV-L-2: HI-4: explaining the meaning and usage of grade-specific academic vocabulary and symbols. IV-L-2: HI-13: analyzing grade-level content words in context to determine meaning.	1/17/14

Implementing the ILLP

- **AZCCRS Standard:** 7.RP.A.1
  - Compute unit rates associated with ratios of fractions, including ratios of lengths, areas and other quantities measured in like or different units.
- **AZCCRS Mathematical Practices**
  - MP3: Construct viable arguments and critique the reasoning of others
  - MP6: Attend to precision
- **ELP Standards**
  - IV-LS-1: HI-8: Offering an justifying opinions and ideas in response to questions and statements in academic discourse.
  - IV-L-2: HI-4: Explaining the meaning and usage of grade-specific academic vocabulary and symbols
  - IV-L-2: HI-13: Analyzing grade-level content words in context to determine meaning

Sample Lesson

- **Student Outcomes:**
  - Students compute unit rates associated with ratios of quantities measured in different units.
  - Students use the context of the problem to define ratio, equivalent ratios, rate and unit rate.
  - Students relate rate and unit rate to the context of the experience.

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- Describe the quantities you want to measure by talking about what units we use to measure each quantity.

  Sample Student Response:

  One quantity measures the number of papers, and the other measures the number of seconds.

- Review the Key Idea box defining ratio, rate, and unit rate on the Student Handout. Focus on reviewing the concept of ratio first, perhaps using a few quick examples.

Terms from Grade 6 Ratios and Unit Rates:
A **ratio** is an ordered pair of non-negative numbers, which are not both zero. The ratio is denoted A:B to indicate the order of the numbers: the number *A* is first and the number B is second.

A ratio of two quantities, such as 5 miles per 2 hours, can be written as another quantity called a **rate**.

The numerical part of the **rate** is called the **unit rate** and is simply the value of the ratio, in this case 2.5. This means that in 1 hour the car travels 2.5 miles. The unit for the rate is miles/hour, read miles per hour.

Describe the quantities you want to measure by talking about what units we use to measure each quantity.

a. *One quantity measures the number of papers, and the other measures the number of seconds.*

PE-4: identifying grade-specific academic vocabulary including key words, symbols, or operations with instructional support. (math, science, social studies)	E-4: identifying grade-specific academic vocabulary including key words, symbols, or operations. (math, science, social studies)	B-4: categorizing grade-specific academic vocabulary and symbols by content. (math, science, social studies)	LI-4: explaining the meaning of grade-specific academic vocabulary and symbols with instructional support. (math, science, social studies)	HI-4: explaining the meaning and usage of grade-specific academic vocabulary and symbols. (math, science, social studies)

To measure use a _____.

or

Describe the quantities you want to measure by talking about what units we use to measure each quantity.

a. *One quantity measures the number of papers, and the other measures the number of seconds.*

PE-4: identifying grade-specific academic vocabulary including key words, symbols, or operations with instructional support. (math, science, social studies)	E-4: identifying grade-specific academic vocabulary including key words, symbols, or operations. (math, science, social studies)	B-4: categorizing grade-specific academic vocabulary and symbols by content. (math, science, social studies)	LI-4: explaining the meaning of grade-specific academic vocabulary and symbols with instructional support. (math, science, social studies)	HI-4: explaining the meaning and usage of grade-specific academic vocabulary and symbols. (math, science, social studies)

Sort into categories the following words related to the word measure. Be sure to label each of your categories.

inch, quart, clock, meter stick, minute, ruler, yard, second, pound, time, hour, liter, stopwatch, meter, millimeter, centimeter, ounce, cup, pint, scale, yardstick, number, gallon

Describe the quantities you want to measure by talking about what units we use to measure each quantity.

a. *One quantity measures the number of papers, and the other measures the number of seconds.*

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Definition: Glossary- Self-	**Related Words:**
Example: Mathematical- Real-Life-	

Measure

Key Terms from Grade 6 Ratios and Unit Rates:

A ratio is an ordered pair of non-negative numbers, which are not both zero. The ratio is denoted A: *B* to indicate the order of the numbers: the number *A* is first and the number *B* is second.

Two ratios A: *B* and C:*Dare* equivalent ratios if there is a positive number, *c,* such that *C* = *cA* and *D* = *cB.*

A ratio of two quantities, such as 5 miles per 2 hours, can be written as another quantity called a rate.

The numerical part of the rate is called the unit rate and is simply the value of the ratio, in this case 2.5. This means that in 1hour the car travels 2.5 miles. The unit for the rate is miles/hour, read miles per hour.

PE-13: determining the meaning of words using visual support. (math, science, social studies)	E-13: determining the meaning of words using word parts and context clues. (math, science, social studies)	B-13: applying knowledge of words in context to determine meaning of grade-level content words. (math, science, social studies)	LI-13: analyzing grade-level content words in context to determine meaning with instructional support. (math, science, social studies)	HI-13: analyzing grade-level content words in context to determine meaning. (math, science, social studies)

Common Kinds of Context Clues

- A definition, usually offset by commas or dashes (an appositive)
  - A balloonist, the pilot of a hot air balloon, avoids sultry days.
- A synonym or a rephrasing
  - It was sultry, very hot and humid indeed.
- An antonym
  - The weather was sultry, not cool and crisp.
- An example
  - The day was sultry; it felt like a bathroom after a hot shower.
- Generally helpful context
  - It was a sultry day. The day was very hot and humid. If you moved at all, you would break out in a sweat. It was one of those days to drink water and stay in the shade. (from Baumann et al., 2007, p. 117)
- Common signal words
  - which is, in other words, also known as, also called, that is, or, for example, such as, but, in contrast, however, etc.

Key Terms from Grade 6 Ratios and Unit Rates:

A ratio is an ordered pair of non-negative numbers, which are not both zero. The ratio is denoted A: *B* to indicate the order of the numbers: the number *A* is first and the number *B* is second.

Two ratios A: *B* and C:*Dare* equivalent ratios if there is a positive number, *c,* such that *C* = *cA* and *D* = *cB*.

A ratio of two quantities, such as 5 miles per 2 hours, can be written as another quantity called a rate.

The numerical part of the rate is called the unit rate and is simply the value of the ratio, in this case 2.5. This means that in 1hour the car travels 2.5 miles. The unit for the rate is miles/hour, read miles per hour.

Words that signal an example(s) or a definition is on the way-

which is, in other words, also known as, is/also called, that is, or, for example, such as, but, in contrast, however, which means

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- When we started passing papers, the ratio was *24 papers in 12 seconds,* and by the end the ratio was *24 papers in 8 seconds.* Are these two ratios equivalent? Explain why or why not.
  - *Guide students in a discussion about the fact that the number of papers was constant, and the time decreased with each successive trial. See if students can relate this to rate and ultimately determine which rate is greatest.*
- The following questioning is meant to guide students into the realization that unit rate can act as an equalizer, allowing us to make comparisons between a variety of ratios and helping us to compare different data points.

MP3

MP6

MP6

When we started passing papers, the ratio was *24 papers in 12 seconds,* and by the end the ratio was *24 papers in 8 seconds.* Are these two ratios equivalent? Explain why or why not.

PE-8: responding to academic content ideas and concepts by using key words, phrases, and gestures.	E-8: responding to academic content ideas and concepts by using key words in complete sentences.	B-8: responding to questions and statements in an	LI-8: responding to questions and statements in an	HI-8: offering and justifying opinions and ideas in
(math, science, social studies)	(math, science, social studies)			

	Casual Conversational English	Formal Spoken & Written English
Sharing Personal Ideas or Opinions	I think… I learned that…	I decided that … I believe that … I concluded that … I observed that …
Pointing Out Similarities	Mine's the same. Oh yeah. Right. Me too.	My idea is similar to __'s. My idea builds upon __'s. I agree with __. I also think that __.

Grouping Structures

MP 3. Construct viable arguments & critique the reasoning of others

MP 6. Attend to precision

When we started passing papers, the ratio was *24 papers in 12 seconds,* and by the end the ratio was *24 papers in 8 seconds.* Are these two ratios equivalent? Explain why or why not.

PE-8: responding to academic content ideas and concepts by using key words, phrases, and gestures. (math, science, social studies)	E-8: responding to academic content ideas and concepts by using key words in complete sentences. (math, science, social studies)	B-8: responding to questions and statements in an academic discussion by using key vocabulary in complete sentences. (math, science, social studies)	LI-8: responding to questions and statements in an academic discussion by using key vocabulary in complete sentences. (math, science, social studies)	HI-8: offering and justifying opinions and ideas in response to questions and statements in academic discourse. (math, science, social studies)

Grouping Structures

MP 3. Construct viable arguments & critique the reasoning of others

MP 6. Attend to precision

- Multiple
- Purposeful
- Allow multiple entry points

When we started passing papers, the ratio was *24 papers in 12 seconds,* and by the end the ratio was *24 papers in 8 seconds.* Are these two ratios equivalent? Explain **why** or **why not**.

(p. 13)

Prior Learning

The unit rate tells the quantity of one unit required for just one of another unit. For example, a unit price of .4 means 1 juice box from a six-pack costs $0.40.

Assessment: Statement of Understanding

How is finding an associated rate or unit rate helpful when making comparisons between quantities?

Exemplar Response

"Unit Rate can be helpful for comparing ratios and their associated rates when measured in different units. The unit rate allows you to compare varying sizes of quantities by examining the number of units of one quantity per 1 unit of the second quantity."

Your Turn

Listening & Speaking

IV-LS-1:HI-8: offering and justifying opinions and ideas in response to questions and statements in academic discourse.

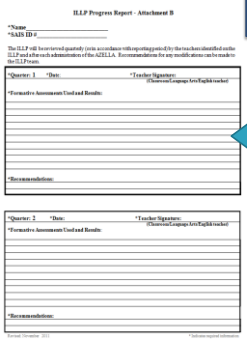
IV-LS-1:HI-9: making inferences and drawing conclusions using evidence from content area presentations and discussions.

Vocabulary

IV-L-2: HI-4: explaining the meaning and usage of grade-specific academic vocabulary and symbols.

IV-L-2: HI-13: analyzing grade-level content words in context to determine meaning.

Attachment B



ILLP Progress Report - Attachment B

*Name _____
*SAIS ID # _____

The ILLP will be reviewed quarterly (or in accordance with reporting period) by the teachers identified on the ILLP and after each administration of the ACELLA. Recommendations for any modifications can be made to the ILLP team.

*Quarter: 1 *Date: *Teacher Signature: (Classroom/Language Arts/English teacher)

*Formative Assessments Used and Results:

*Recommendations:

*Quarter: 2 *Date: *Teacher Signature: (Classroom/Language Arts/English teacher)

*Formative Assessments Used and Results:

*Recommendations:

Revised November 2013 *Indicates required information

At the end each of quarter or grading period…

- The teacher will review and revise the goals in the ILLP(s).

- Formative Assessments (ex Math Notebooks (quick writes), Checks for Understanding, Ticket Out the Door, etc.)
- Benchmark Assessments
- Program Assessments
- Oral Presentations
- Responses Within Academic Discussions