"See children as full of potential, competent and capable of building their own theories".

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Supporting Kindergarten ELLs Learning Through Exploration and Inquiry

Establish a Table Partners

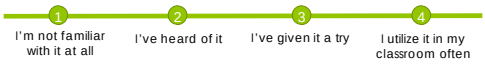

Partner A

Partner B


Goals

- Define inquiry-based learning.
- Use content topics in language instruction.
- Identify language structures for academic discussion found in the English Language Proficiency Listening & Speaking and Vocabulary Standards.
- Explore hands-on experiences which give young learners the opportunity to be active constructors of knowledge.

On the continuum below, how would you rate your familiarity with inquiry-based learning?



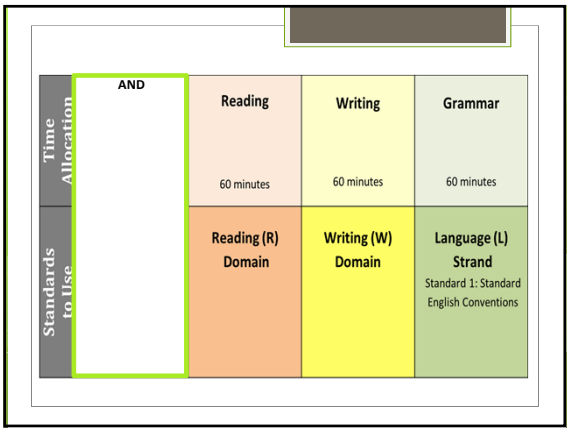
I'm not familiar with it at all | I've heard of it | I've given it a try | I utilize it in my classroom often

Inquiry-Based Learning is:

- taking themes from **science** and **social studies** standards and making them student-led and project-based.
- an opportunity to explore concepts/questions directly and deeply over time through experiments, predictions, observations, and inferences.

Why this may be difficult for ELLs

- ELLs may not have enough English language to communicate their thoughts.
- They must learn everyday vocabulary, content-specific vocabulary, and language structures in order to participate.
- Science-specific words can be confusing for ELLs, multiple meaning words.
- Struggles with language of instruction lead students to partial or inaccurate understandings of the content.



Teacher's Role in Inquiry

- Formulate an open-ended question
- Determine the academic language demands
- Plan for inquiry – brainstorm, research, interpret data, reflection
- Gather materials
- Organize the environment
- Scaffold the learning
- Check for understanding throughout

What science content do you think you could use to teach academic language?

Partner B

Partner A

Planning for this Unit of Discovery

Consider content standards for topics

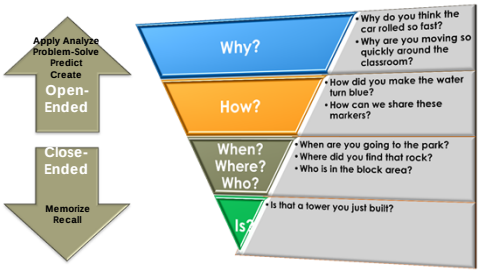
Start with an open-ended question

Formulating an Open-Ended Question

Plan to use questions that encourage thinking and reasoning. **The answer cannot be a simple fact.**

The questions must be answerable.

Formulating Open-Ended Questions



Consider the topic your group has been provided.

Generate 2-3 possible questions could you pose to students to start this inquiry.

Academic Language Necessary for Inquiry

Formulate hypotheses

Draw conclusions

Ask questions

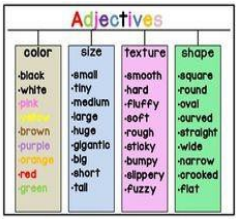
Make predictions

Make inferences

Identify Language Skills for this Unit of Discovery

Academic Language

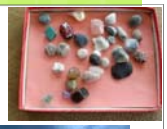
- Ask questions
- Make predictions
- Identify objects
- Describe objects and events
- Categorize



Plan for Inquiry and Gather Materials/Resources

- books
- guest speakers/experts
- items for experiments/investigation

Materials for this Unit of Discovery



Organize the Environment

- Plan space for individual, small, and large group activities
- Set up for student movement
- Organize an area for supplies for students
- Create bulletin boards/walls to post questions and findings

Environment for this Unit of Discovery

Rock Unit Lessons and Exploration

Scaffold the Learning

- Make Content Comprehensible
  - vocabulary banks, pictures, realia
- Provide Opportunities for Communication
  - whole group, small group, partners
- Provide Support for Communication
  - echo response, choral response, sentence frames, pre-teach language structures

Hold high expectations for all students.

Lesson 1
Review adjectives:

- large/small
- heavy/light
- dark/light
- smooth/rough
- color

Lesson 1

Teach the language structures we use to describe objects by:

- **shape, size, color**

It (The object) is adjective.

It's adjective.

They are adjective.

- **texture**

It (The object) feels adjective.

They feel adjective.

Listening and Speaking
I-LS-2:HI-9: naming and describing objects, people, and events.

Exploration

Rocks Mystery Box

Put several rocks in a shoebox. Students will reach in and feel the rocks in the box.

Students will describe such attributes as shape, size, or texture of the rock.

Vocabulary
I-L-2:HI-1: naming and sorting common objects and pictures into self-selected categories and providing rationale.

Lets see exploration in action!

Lesson 2

Academic Discussion -Whole group

- "What do we already know about rocks?"
- "What do we want to know about rocks?"

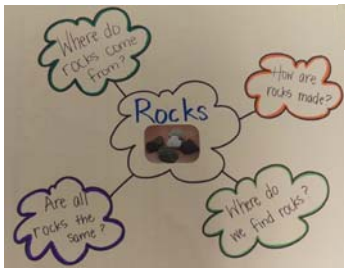
Listening and Speaking
I-LS-1:HI-6: responding to comments and questions in social conversations by asking questions, sharing one's experiences, and expressing one's thoughts.

What resources could you provide students to scaffold responses?

Partner A

Partner B

Sample for this Unit of Discovery



Lesson 3

- Teach terms for rocks

solid **pebble**

soil **stone**

Vocabulary
I-L-2:HI-5: using key words, symbols or operations that represent grade specific academic vocabulary within a given context.

Lesson 4

- Read Aloud (narrative)
- Listening comprehension – listen for key words **pebble** and **rock**

Listening and Speaking
I-LS-1:HI-3: responding to read-alouds by identifying main ideas/concepts and details using key words in complete sentences.

Stand Up!

Lesson 5

- Teach students a poem related to topic
- Focus on expressive phrasing
- Scaffold using physical movement (TPR) and pictures

Listening and Speaking
I-LS-2:HI-10: producing rhyming words and short, simple, rhyming phrases and songs using accurate pronunciation as well as expressive phrasing and intonation.

Lesson 6

Teach language structures we use to make predictions.

- I guess ____
- I think ___
- I predict ____

How to Teach

- Introduce frame
- Have students repeat frame
- Direct attention to new vocabulary or syntax (future)
- Randomly call on students to use the frame (praise and error correction)
- Partner A shares, Partner B restates partner A's response
- Partner B shares, Partner A restates partner B's response

Listening and Speaking
I-LS-1:HI-6: responding to comments and questions in social conversations by asking questions, sharing one's experiences, and expressing one's thoughts.

In partners, students discuss their predictions (applying academic language starters) about the kind of rocks they think they will find out on the playground.

Whole group share out.

Exploration

- During a recess break, go with the students to collect rocks from the playground. Also, teacher could partner with PE teacher to have the students pick up a rock on the way back to class.
- Or if that isn't possible…send a letter home to families asking the kids to bring in one or two rocks from home.
- During Writing time – complete their "My Rock Report"

Lesson 7

Interview - Partner A/B

- "Where did you find your rock?"
- "How would you describe your rock?"

Scaffold with answer frames

Listening and Speaking
I-LS-1:HI-6: responding to comments and questions in social conversations by asking questions, sharing one's experiences, and expressing one's thoughts.

Rally Robin

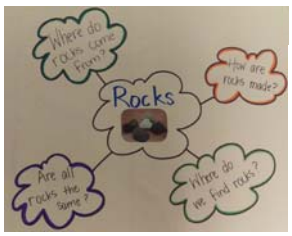
What language structures could you teach next?

Partner B to start

Revisit Questions

Have we found answers to any of our questions yet?

Let's think about this question?



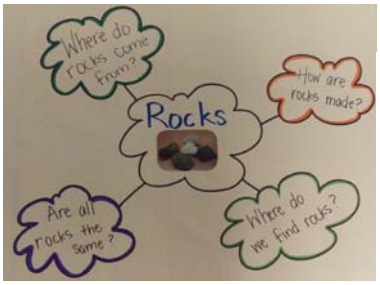
Lesson 8

- Label and sort classroom rocks
- Provide rationale

These rocks are grouped together because ____.

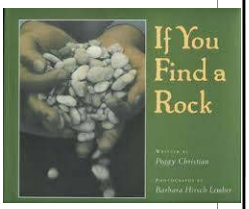
Vocabulary
I-L-2:HI-1: naming and sorting common objects and pictures into self-selected categories and providing rationale.

Reflection



Lesson 9

- Read Aloud (informational)
- Listening comprehension – whole group, complete graphic organizer to record details found in the text that answer questions from initial web



Listening and Speaking
I-LS-1:HI-3: responding to read-alouds by identifying main ideas/concepts and details using key words in complete sentences.

Culminating Activity

- "The topic of my presentation is _____."

Listening and Speaking
I-LS-2:HI-9: naming and describing objects, people, and events.

Jot Thoughts

What opportunities could you provide for students to further explore rocks?

Where could we go next?

Academic Language	Science Content
comparison	soil
contrast	uses of rocks
sequencing	sink or float
analyzing	living/non-living
argumentation	
questioning	

Check for Understanding Throughout

Observe – taking anecdotal notes; using checklists and rubrics

- During whole group discussions
- During partner work
- During one-on-one conferencing
- During presentations

Formative Assessments

During **Oral English Conversation and Vocabulary** we are assessing students ability to:

- **name, describe,** and **sort** common objects into categories and providing rationale
- **responding** to read-alouds using key words **in complete sentences**
- responding to comments and questions by **asking questions** and **expressing one's thoughts**
- using **accurate pronunciation**, **expressive phrasing**, and **intonation**
- using key words that represent grade specific **academic vocabulary**

Name: _____ Score: _____

Oral Presentation Rubric

	4—Excellent	3—Good	2—Fair	1—Needs Improvement
Delivery	• Holds attention of entire audience with the use of direct eye contact, seldom looking at notes • Speaks with fluctuation in volume and inflection to maintain audience interest and emphasize key points	• Consistent use of direct eye contact with audience, but still returns to notes • Speaks with satisfactory variation of volume and inflection	• Displays minimal eye contact with audience, while reading mostly from the notes • Speaks in uneven volume with little or no inflection	• Holds no eye contact with audience, as entire report is read from notes • Speaks in low volume and/or monotonous tone, which causes audience to disengage
Content/ Organization	• Demonstrates full knowledge by answering all class questions with explanations and elaboration • Provides clear purpose and subject; pertinent examples, facts, and/or statistics; supports conclusion/ideas with evidence	• Is at ease with expected answers to all questions, without elaboration • Has somewhat clear purpose and subject; some examples, facts, and/or statistics that support the subject; includes some data or evidence that supports conclusions	• Is uncomfortable with information and is able to answer only rudimentary questions • Attempts to define purpose and subject; provides weak examples, facts, and/or statistics, which do not adequately support the subject; includes very thin data or evidence	• Does not have grasp of information and cannot answer questions about subject • Does not clearly define subject and purpose; provides weak or no support of subject; gives insufficient support for ideas or conclusions
Enthusiasm/ Audience Awareness	• Demonstrates strong enthusiasm about topic during entire presentation • Significantly increases audience understanding and knowledge of topic; convinces an audience to recognize the validity and importance of the subject	• Shows some enthusiastic feelings about topic • Raises audience understanding and awareness of most points	• Shows little or mixed feelings about the topic being presented • Raises audience understanding and knowledge of some points	• Fails to increase audience understanding of knowledge of topic • Shows no interest in topic presented

readwritethink

Discussion Rubric

CATEGORY	4	3	2	1
Participation	Student takes an active role, (without prompting), in classroom discussions, contributing relevant and insightful comments as well as posing thoughtful questions.	Student willingly participates in classroom discussions, offering useful and relevant comments.	Student responds to teacher prompts during classroom discussions, but seldom volunteers. Comments are sometimes not relevant to the discussion.	Student may or may not willingly respond to teacher prompts during classroom discussions, and never volunteers. Comments are seldom relevant to the discussion.
Comprehension	Student comments reflect a deep understanding of the topic being discussed.	Student comments indicate good understanding of the topic being discussed.	Student comments indicate less than clear understanding of the topic being discussed.	Student comments indicate little understanding of the topic being discussed.
Respect for Others	Student listens carefully to others, waits patiently for a turn to speak, and is respectful of other points of view.	Student listens to others, rarely interrupts, and generally accepts other points of view.	Student does not consistently listen to others, interrupts frequently and demonstrates little respect for other points of view.	Student typically does not listen to others, interrupts frequently and/or is rude and intolerant of other points of view.

POLL

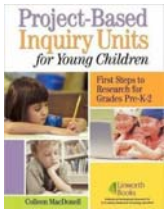
Which best defines inquiry-based learning?

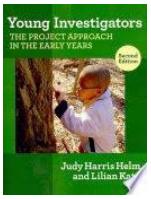
A. Inquiry-based learning is a lesson in which teachers ask students questions.

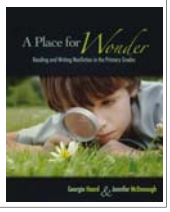
B. Inquiry-based learning is hands-on, student-centered discovery that is based on students' questions in order to convert information and data into useful knowledge.

C. Inquiry-based learning is instruction that teaches students to follow the scientific method.

Resources







In Review:

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