Successful literacy instruction and interventions... provide a strong core of highly explicit, systematic teaching of foundational skills such as decoding and spelling skills, as well as explicit teaching of other important components of literacy such as vocabulary, comprehension, and writing.

Fletcher et al., 2018; Gersten et al., 2008; Graham et al., 2012; Torgesen, 2004
The Science of Reading
The Simple View
Gough & Tunmer, 1986
Decoding x Linguistic Comprehension
= Reading Comprehension

Scarborough, 2001 Used with Permission
The Language-Reading Comprehension Connection
Expert teaching of reading and writing is only possible when the teacher knows not just the meanings conveyed by language, but how language itself works.

Moats, 2010
...reading comprehension is not a single entity that can be explained by a unified cognitive model. Instead, it is the orchestrated product of a set of linguistic and cognitive processes operating on text and interacting with background knowledge, features of the text, and the purpose and goals of the reading situation.

Castles, A., Rastle, K., & Nation, K., 2018
The **products** of comprehension are indicators of what the **reader knows and understands after reading** is completed, whereas the **processes** of comprehension are those **cognitive activities by which the reader arrives at those products**.

Rapp et al, 2010
Antonio-first grade
*Velveteen Rabbit*
What do you think this means: “When a child loves you for a long, long time, not just to play with, but REALLY loves you, then you become Real.”

Kayla-third grade
*Mystery of the Tattooed Mummy*
Why were the archaeologists surprised when they discovered the mummy?

Matt-fifth grade
*Tuck Everlasting*
Would you want to be immortal? Why or why not?

Lily-ninth grade
*Animal Farm*
In what ways, does this fable serve as a condemnation of Soviet Communism?
The **products** of comprehension are indicators of what the **reader knows and understands after reading** is completed, whereas the **processes** of comprehension are those **cognitive activities by which the reader arrives at those products**.

Rapp et al, 2010
LANGUAGE COMPREHENSION

BACKGROUND KNOWLEDGE
(facts, concepts, etc.)

VOCABULARY
(breadth, precision, links, etc.)

LANGUAGE STRUCTURES
(syntax, semantics, etc.)

VERBAL REASONING
(inference, metaphor, etc.)

LITERACY KNOWLEDGE
(print concepts, genres, etc.)

WORD RECOGNITION

PHONOLOGICAL AWARENESS
(syllables, phonemes, etc.)

DECODING (alphabetic principle,
spelling-sound correspondences)

SIGHT RECOGNITION
(of familiar words)

SKILLED READING:
Fluent execution and
coordination of word
recognition and text
comprehension.
reading comprehension is not a single entity that can be explained by a unified cognitive model. Instead, it is the orchestrated product of a set of linguistic and cognitive processes operating on text and interacting with background knowledge, features of the text, and the purpose and goals of the reading situation.

Castles, A., Rastle, K., & Nation, K., 2018
Levels of language processing…

Based on Oakhill & Cain, 2007
The Research to Practice Connection
Constructing the Comprehension House

A Structured Approach to Reading Comprehension Instruction

A Blueprint Based in the Science Literacy & Content Goals Purposeful Readings Evidence Based Strategies & Activities

Hennessy, 2020
# Blueprint for Comprehension Instruction

## Preparing for Instruction: Critical Understandings of Text

What do you want students to know and understand after reading the text? What are the critical concepts and understandings—big ideas you want your students to acquire? What texts will support these understandings?

## Purpose for Reading Text

What are the content instructional goals and objectives? What are the literacy instructional goals and objectives?

## Text Reading: Vocabulary

- Which words will your students need to know? Which are worth knowing?
- Which ones will you intentionally target and directly teach? Which ones will you incidentally-on-purpose teach? How, when?
- Which words will you purposefully discuss and incorporate into expressive language activities? How and when will you teach and foster the use of independent word-learning strategies?

## Language Structures (phrases, clauses, sentence comprehension)

- Are there phrases, clauses, and sentence structures that may be difficult for your students?
- How and when will you directly teach sentence comprehension? How and when will you teach students to work with challenging sentences?
- How will you facilitate the integration of ideas within and between sentences, e.g., the use of cohesive ties and connectives? How and when will you teach students to work with these?

## Knowledge

- **Text Structure**
- **Background Knowledge**

- How is the text organized? How and when will you directly teach students the purpose, features, and signal words of different genres? How will you teach students to use the structure to understand purpose? To organize and express their understanding?

- What background knowledge is critical to understanding the text? How and when will you teach students to access and build their knowledge and integrate it with the text?

## Levels of Understanding and Inference

- How will you teach students to construct meaning at different levels of understanding, including the surface code, textbase, and mental model of text? How will you directly teach students to use inference to integrate ideas and connect background knowledge to the text? How will you support your students’ deep comprehension of text?

## Expression of Understanding

- What strategies and activities will you use for students to demonstrate understanding at different levels during and after reading? How will you support their oral and written expression of understanding?
An framework, based in the science, designed to guide and structure support the educator as he/she identifies learning goals, sets purpose, organizes instruction, selects instructional strategies and activities, delivers effective instruction, monitors students' progress and adjusts accordingly.
 ✓ Revisit the components of Reading Comprehension Blueprint.
 ✓ Consider the role of enduring understandings, purposeful texts and content and literacy goals and evidenced based strategies in comprehension instruction.
 ✓ Q & A
Shifting to Structured Literacy Instruction:

The Critical Role of Vocabulary Instruction

Ohio Literacy Academy

Nancy Hennessy, M.Ed.
March 15, 2021
Words are not just words. They are the nexus—the interface—between communication and thought. When we read, it is through words that we build, refine, and modify our knowledge. What makes vocabulary valuable and important is not the words themselves so much as the understandings they afford.

Adams, 2009
Today

What evidence supports the vocabulary-comprehension connection?

How can we define and describe vocabulary?

What are the components of an informed instructional framework?
Making meaning is dependent on the ability to work with the words, their meaning at the word, and sentence level. 
Oakhill, Cain & Elbro, 2014
...early as kindergarten, language measures, including vocabulary, add to the prediction of reading comprehension difficulties over and above other word reading predictors and are direct measures of word reading performance in second grades.

Catts et al, 2014

Children with better vocabulary knowledge have higher reading comprehension scores concurrently and longitudinally.

Oakhill, Cain & Elbro, 2015
Levels of language processing...

Based on Oakhill & Cain, 2007
What evidence supports the vocabulary-comprehension connection?

How can we define and describe vocabulary?
Vocabulary

...an individual’s lexicon or mental dictionary of words that serve multiple purposes.
Vocabulary knowledge is...

- Incremental (bit by bit)
- Interrelated (semantic networks)
- Multidimensional in nature
What evidence supports the vocabulary-comprehension connection?

How can we define and describe vocabulary?

What are the components?
Constructing the Comprehension House

A Structured Approach to Reading Comprehension Instruction

A Blueprint Based in the Science Literacy & Content Goals Purposeful Readings Evidence Based Strategies & Activities

Hennessy, 2020
Which words will your students need to know?  
Which are worth knowing?

Which ones will you intentionally target and directly teach?

Which ones will you incidentally-on-purpose teach?  
How? When?

How and when will you teach and foster the use of independent word learning strategies?

Which words will you purposefully discuss and incorporate into expressive language activities?
# Informed Vocabulary Framework

<table>
<thead>
<tr>
<th>Intentional Instruction</th>
<th>Incidental on Purpose Instruction</th>
<th>Intentional Independent Word Learning Strategies Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>✓ Word Choice</td>
<td>✓ Structured Point of Contact Teaching</td>
<td>✓ Using the Dictionary</td>
</tr>
<tr>
<td>✓ Principles of Instruction</td>
<td>✓ Structured Teacher-Student Talk</td>
<td>✓ Using Context Clues</td>
</tr>
<tr>
<td>✓ Instructional Routines</td>
<td>✓ Structured Shared Reading</td>
<td>✓ Using</td>
</tr>
<tr>
<td>✓ Processing &amp; Practice Activities</td>
<td>✓ Structured Independent Reading</td>
<td>Morphemic Analysis</td>
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<td></td>
<td><em>Purposeful Activities</em></td>
<td></td>
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</table>

©2011 Nancy Hennessy
Multiple exposures to targeted words

Engagement in deep processing of each word

Multiple activities before, during, after reading

Principles of Instruction
Stahl, 2005
## Teacher Behavior

- Pronounces targeted word and discusses structure and/or asks questions about linguistic structure.
- Asks students to repeat.
- Explains the meaning in everyday language.
- Provides examples from context and other situations. Asks students for example.
- Says, spells and writes the word.

### Simple Routine-
Definitional & Contextual Information
Principles of Instruction
Stahl, 2005

1. Definitional & Contextual Information
2. Engagement in deep processing of each word
3. Multiple activities before, during, after reading

- Multiple exposures to targeted words
## Processing & Practice

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<thead>
<tr>
<th>Connect</th>
<th>Represent</th>
<th>Use</th>
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<tr>
<td>Semantic Maps</td>
<td>Pictures</td>
<td>Questions, Examples</td>
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<td>Drawings</td>
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<td>Videos</td>
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<tr>
<td>Semantic Feature Analysis</td>
<td>Gestures and Movement</td>
<td>Conversation Prompts</td>
</tr>
<tr>
<td>Concept Maps</td>
<td>Word Walls</td>
<td>Writing Stems</td>
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*Multiple exposures & deep processing...*
## Informed Vocabulary Framework

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Deeper Dive

✓ Delve into critical aspects of intentional instruction using examples from text.
✓ Share examples of incidental on purpose instruction and instructional examples for applying independent word learning strategies.
✓ Q & A
Shifting to Structured Literacy Instruction:

Nancy Hennessy, M.Ed.
May 10, 2021

The Critical Role of Background Knowledge

Ohio Literacy Academy LIVE
All learning involves transfer from previous experiences. Even initial learning involves transfer that is based on previous experiences and prior knowledge.

National Research Council, 2000
Today

✓ What evidence supports the connection between background knowledge & comprehension?

How can we define background knowledge?

What are the components of an informed instructional framework for background knowledge?
This topical knowledge has also been described as “the key to comprehension.”
Research over the past 40 years or so has made it clear that the knowledge that students bring to a text—any text—will have an impact on what is comprehended or learned from that text. The more you know, the better your comprehension tends to be.

Shanahan, 2017

Comprehension demands background knowledge because language is full of semantic breaks in which knowledge is assumed and, therefore, comprehension depends on making correct inferences.

Willingham, 2018
…that whether or not readers understand a text depends far more on how much background knowledge and vocabulary they have relating to the topic than on how much they’ve practiced comprehension skills.

Willingham, 2018
Levels of language processing...

Based on Oakhill & Cain, 2007

- **Words & Phrases**
  - Academic vocabulary
  - (breadth, depth, precision)

- **Sentences**
  - Density
  - Length
  - Structure
  - Cohesive ties & connectives

- **Knowledge**
  - Schema
  - Text structure
  - Inference
    - Local
    - Global

- **Coherent representation of Text**

Surface code → Text base → Situation/Mental model
Proficient readers construct an *integrated representation of meaning*
rather than an exact record of specific words, syntax, or structure.

*They create a mental model or situation model by *intertwining*
background knowledge and experiences with this text-based
representation.*

Snow, 2002

This effortful process of *aggregating successive units of meaning*
results in the construction of the mental model.

Hennessy, 2020
Today

✓ What evidence supports the connection between background knowledge & comprehension?

✓ How can we define background knowledge?

What are the components of an informed instructional framework for background knowledge?
Background knowledge is specific to the situations, problems, and concepts presented in targeted texts used in an academic setting.

Concepts, experiences, information, and text structures that are relevant to a text under study.

Brody, 2001
knowledge about the topic at hand is like mental velcro. The relevant knowledge gives the words of the text places to stick and make sense, thereby supporting comprehension and propelling the reading process forward.

Adams, 2015
Today

✓ What evidence supports the connection between background knowledge & comprehension?
✓ How can we define background knowledge?
✓ What are the components of an informed instructional framework for background knowledge?
Constructing the Comprehension House

A Structured Approach to Reading Comprehension Instruction

A Blueprint Based in the Science Literacy & Content Goals Purposeful Readings Evidence Based Strategies & Activities

Hennessy, 2020
General Instructional Recommendations

What kids read matters.

Kids should learn what they read.

Kids should review and revisit content.

Jacobsen, 2019
What background knowledge/schema is critical to understanding the text?

How and when will you teach students to access, build and integrate knowledge with the text?

<table>
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<tr>
<th>Blueprint for Comprehension Instruction</th>
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<tbody>
<tr>
<td><strong>PREPARING FOR INSTRUCTION</strong></td>
</tr>
<tr>
<td>Critical Understanding of Text</td>
</tr>
<tr>
<td>What do you want students to know and understand before reading the text? What are the critical concepts and understanding? The time you want your students to engage with the text? What does that imply about your understanding?</td>
</tr>
</tbody>
</table>

| **PURPOSE FOR READING TEXT**              |
| What are the underlying structural goals and objectives? What are the literacy goals and expected outcomes? |

| **TEXT-READING VOCABULARY**               |
| Which words will your students need to know/understand? Where are they difficult to spell and check? How will you teach students to understand the meaning? How will you help students to use the vocabulary meaningfully? |

| **LANGUAGE STRUCTURES (Schemata, Themes, etc.)** |
| What are some key phrases, story elements, or other features that may be difficult for your students? How will you help students integrate this information? How will you help students build connections between these elements and already known information? |

| **KNOWLEDGE**                           |
| Underlying, Background Knowledge        |
| How do you plan to help students understand the background knowledge they need to understand the text? How will you help students build on their prior knowledge? |

| **LEVELS OF UNDERSTANDING AND INTEGRATION** |
| How will you help students connect and make sense of different parts of the text, including the authors' views, evidence, and motives? How will you help students to see the authors' points of view, and the evidence to support them? |

| **EXPRESSION OF UNDERSTANDING**         |
| What strategies and activities will you use to ensure that students demonstrate understanding of the text? How will you provide feedback and support for students who are struggling to understand the text?
<table>
<thead>
<tr>
<th>ABCs Instructional Tools</th>
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<tbody>
<tr>
<td><strong>Activate &amp; Assess</strong></td>
<td><strong>Build Background Knowledge</strong></td>
<td><strong>Connect to Background Knowledge</strong></td>
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<tr>
<td><strong>Anticipation Guides</strong></td>
<td><strong>Multiple Topical/Themed Texts</strong></td>
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</tr>
<tr>
<td><strong>Questions &amp; Prompts</strong></td>
<td><strong>Virtual &amp; Real Time Experiences</strong></td>
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<tr>
<td><strong>Charts, Webs, Maps</strong></td>
<td><strong>Authentic Artifacts</strong></td>
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</tr>
<tr>
<td><strong>Visual Images</strong></td>
<td><strong>Vocabulary Connections</strong></td>
<td><strong>Application to Other Readings</strong></td>
</tr>
</tbody>
</table>

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Anticipation Guides:

Teacher prepares a series of written statements that may or may not reflect the critical content of the targeted texts. Before students read, they indicate whether they agree or disagree with statements. After reading, students can compare initial responses and discuss differences.

Visual Images:

Teacher identifies pictures, photographs, illustrations, artwork from picture books, texts or online resources. Coupled with targeted questions, they can support activation of relevant background knowledge from targeted texts before and then, during reading.

Hennessy, 2020
Deeper Dive

✓ Surface current instructional practices.
✓ Delve into critical aspects of intentional instruction using examples from text.
✓ Q & A