# Dreaming Up Teacher's Guide





# **Reading Level**

\*Reading Level: Grades 1–2 Interest Level: Grades PREK–3 Guided Reading Level: I

\*Reading level based on the Spache Readability Formula

# Themes

Building, Children's Play, Art, Concrete Poetry, Architecture, Creativity, Engineering

# Synopsis

Here is a unique celebration of children's playtime explorations and the surprising ways childhood experiences find expression in the dreams and works of innovative architects.

Children's fascination with objects in their environment begins at an early age. As they play, they move, haul, stack, balance, and combine items they encounter in numerous and imaginative ways. As they discover their abilities to build, children also become fascinated with actual buildings, a natural outgrowth of their curiosity about anything huge and complex around them.

*Dreaming Up* celebrates all this by pairing illustrations of children's familiar play activities and informative, captivating concrete poems with photographs of real buildings that take the form and structure of children's constructions to the level of architectural treasures. Locations of the buildings highlighted—some famous and some less well-known include Egypt, Japan, the United States, Spain, Columbia, China, Malaysia, and Canada. Brief introductions focusing on the childhoods of the renowned architects from around the world who designed the buildings conclude the book.

Come be inspired to play-dream-build-discover!

# BACKGROUND

*Concrete poetry:* The poems in *Dreaming Up* are examples of concrete poetry, or shape poetry, poems in which the outline resembles the topic of the poem. The visual aspect of a concrete poem is as much a part of the poem's central idea as the meaning of the words. According to the <u>Academy of American Poets at poets.org</u>, the term "concrete poetry" came into use in the 1950s, but the idea of using the arrangement of words to enhance the meaning of a poem is believed to have originated in ancient Greece. The modern concrete poetry movement reached its height in the 1960s and has been

popular ever since.<sup>1</sup>

*Architect vs. engineer:* Whether a bridge or a building, both an architect and an engineer are necessary to construct the structure. Architects typically design the structure and envision a project and engineers translate the design into mathematical and scientific terms to ensure that it is feasible to execute the design. While architects and engineers create and build *both* public and private structures, engineers have a greater focus on public structures (dams, airports, roadways, and so on) that often require more scientific and technical skill. When studying to receive their degrees, architects usually take more art-focused coursework and engineers usually take more physics- and mathematics-focused coursework. For a simplified breakdown of the duties of an architect and an engineer, the New School of Architecture + Design has a clear infographic online.<sup>2</sup>

# **BEFORE READING**

### **Prereading Focus Questions**

(Reading Standards, Craft & Structure, Strand 5 and Integration of Knowledge & Ideas, Strand 7) Before introducing this book to students, you may wish to develop background and promote anticipation by posing questions such as the following:

- 1. Take a look at the front and back covers. Take a picture walk. Ask students to make a prediction. Do you think this book will be fiction or nonfiction? What makes you think so? What clues does the author/illustrator Christy Hale give to help you know whether this book will be fiction or nonfiction?
- 2. What do you know about poetry? What kinds of poetry do you like? What are the typical features of your favorite kind of poetry? Why do you think some authors write poetry? How do you think their reasons differ from authors who write prose?
- 3. What is an architect? What does an architect do? What types of structures might an architect build? Why are architects important? Think of buildings you have been to or seen. Share what made that building special, or explain its purpose.
- 4. Think about an experience you have had building something while you played. Why do children like to build when they play? What kinds of things do children like to build? What can we learn when we build things when we play?
- 5. Why do you think I chose this book for us to read today?

# Exploring the Book

# (Reading Standards, Craft & Structure, Strand 5, Key Ideas & Details, Strand 1, and Integration of Knowledge & Ideas, Strand 7)

Draw students' attention to the title, *Dreaming Up: A Celebration of Building*. Ask students what they think the title means and why the author chose it. Then ask them what they think this book will most likely be about and who the book might be about. What places might be written about in the book? What people might be written about? What information do they think they might learn? What makes them think that?

Have students observe how each poem in the book mimics the shape of the structure in the illustration, and how each illustration of children building has a corresponding photograph of a notable architectural structure that also mimics the shape of the poem. Ask students why they think the author decided shape each poem this way and to arrange the book this way.

Take students on a book walk and draw attention to the following parts of the book: front and back covers; introductory quotation; dedication; title page; poems, illustrations, and

<sup>&</sup>lt;sup>1</sup> http://www.poets.org/poetsorg/text/brief-guide-concrete-poetry

<sup>&</sup>lt;sup>2</sup> http://newschoolarch.edu/academics/school-of-architecture/infographic-architecture-vs-engineering/

photographs; backmatter; acknowledgments; photograph credits; authors' sources; and quotation sources.

### Setting a Purpose for Reading

(Reading Standards, Key Ideas & Details, Strands 1–3)

Have students read to find out about:

- the different methods and materials children use to build when they play
- the characteristics of various types of architecture
- examples of notable architecture from around the world
- influential architects' experiences and inspirations

Encourage students to consider why the author would want to connect notable works of architecture with children's play structures.

#### VOCABULARY

#### (Language Standards, Vocabulary Acquisition & Use, Strands 4-6)

The story contains several content-specific and academic words and phrases that may be unfamiliar to students. Based on students' prior knowledge, review some or all of the vocabulary below. Encourage a variety of strategies to support students' vocabulary acquisition: look up and record word definitions from a dictionary, write the meaning of the word or phrase in their own words, draw a picture of the meaning of the word, create a specific action for each word, list synonyms and antonyms, and write a meaningful sentence that demonstrates the definition of the word.

CONTENT SPECIFIC sea glass easy peasy

#### ACADEMIC

stacking	view	hideaway	cozy	anchored	directions
form	fluid	treasures	twist	towers	castle
interlock	connect	plastic	brace	moment	balance
roam	dome	reused	shifting	patterns	flickering
slats	slits	caverns	secret	forts	

#### **AFTER READING**

#### **Discussion Questions**

After students have read the book, use these or similar questions to generate discussion, enhance comprehension, and develop appreciation for the content. Encourage students to refer to passages and/or illustrations in the book to support their responses. **To build skills in close reading of a text, students should cite evidence with their answers.** 

Literal Comprehension				
(Reading Standards, Key Ideas & Details, Strands 1 and 3)				
1. What materials do the children in the book like to use to build? What materials do the				
featured architects use to build their structures?				
2. What shapes do you see in each structure the children make and in the photographs				
of structures?				
3. Select one of the poems and focus on the description words. What adjectives are				
used to describe the structure?				
4. Compare one of the structures the children build to the photograph of a real structure.				
What do the creations have in common? What makes them different?				
5. Describe one of the structures in the photographs. What shapes do you see? What is				
the structure made of? How big might it be? What do you think is its purpose? Where				
do you think it is located?				

6. Study the illustrations and photographs. Which materials are more effective for making curved structures? Which materials are more effective for making tall structures? Why? What are the strengths and limits of the materials used?

# Extension/Higher Level Thinking

(Reading Standards, Key Ideas & Details, Strand 2 and 3, Craft & Structure, Strand 6, and Integration of Knowledge & Ideas, Strand 7)

- 1. Why does the author, Christy Hale, choose to begin the book with the quotation, "If they can dream it, they can build it," by Madhu Thangavelu? Who might the "they" refer to? How does this quote relate to the central idea of the book?
- 2. Explain how the poems exemplify concrete poetry.
- 3. Why does a photograph of a real structure accompany each illustration of children playing? What do these pairings suggest about the central idea?
- 4. The author chooses to shape each poem like the structure the children are building. How does this choice affect the tone and mood of the book?
- 5. Study the photographs of the notable structures. What factors do architects need to consider when designing a new structure? (cost of materials, availability of materials, size, purpose, etc.) How might these factors influence the shape of the structure?
- 6. When creating a structure for play, what factors does the child builder/architect have to think about? (purpose of structure, availability of materials, etc.) How might these factors influence the shape of the structure?
- 7. What do children and architects have in common? Why would the author connect children playing with famous structures on the same spread in the book? What impact can play have on adult careers?
- 8. Why do you think the author chooses the title *Dreaming Up: A Celebration of Building*? What does this choice demonstrate about the author's perspective? Whose creations is this book celebrating? Why do you think the author wants to celebrate the act of building?
- 9. The author, Christy Hale, is an art educator as well as an author and an illustrator. How might her career as an art educator have influenced her to write a book about creating and celebrating structures?
- 10. How do the children and featured architects demonstrate creativity?
- 11. The main text and the afterword both give facts about architecture and building. How are these sections different from each other? How are they similar? How are both parts of the text examples of informational nonfiction?
- 12. How do the materials impact the structures children can create? For example, how does a material such as toothpicks influence the shape of the structure the children build?
- 13. How does the purpose of a structure impact the structure the children create? For example, how does the purpose of a reading fort influence the shape and materials the children use?
- 14. Several of the poems in the book use rhyming. What effect does rhyming have on the tone and mood of the book? How does rhyming reinforce that this book is *celebrating* building?

# **Literature Circles**

(Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3 and Presentation of Knowledge & Ideas, Strands 4–6)

(Reading Standards, Integration of Knowledge & Ideas, Strand 9)

(Writing Standards, Research to Build & Present Knowledge, Strands 7 and 9)

If you use literature circles during reading time, students might find the following suggestions helpful in focusing on the different roles of the group members.

- The **Questioner** might use questions similar to the ones in the Discussion Questions section of this guide.
- The **Passage Locator** might look for words or phrases in the poems that identify different materials children can use to build structures.
- The **Illustrator** might work with the **Connector** to find a notable structure in their community, city, or state and draw/create a concrete poem about the appearance or purpose of the structure.
- The **Connector** might find websites or other books about a well-known structure in their community, city, or state (such as a museum, performing arts center, place of worship). Who built it and when? For what is the structure used? Where is it located? What is it made of? Why were those materials used? What is special about the design? What challenges did the architect have in creating this structure?
- The **Summarizer** might provide a brief summary of the group's reading and discussion points for each meeting.
- The **Investigator** might look for information about one of the architects featured in the book and his/her structure. What is the building used for? Where is it located? What is the building made of? Why were those materials used? What is special about the design?

\*There are many resource books available with more information about organizing and implementing literature circles. Three such books you may wish to refer to are: GETTING STARTED WITH LITERATURE CIRCLES by Katherine L. Schlick Noe and Nancy J. Johnson (Christopher-Gordon, 1999), LITERATURE CIRCLES: VOICE AND CHOICE IN BOOK CLUBS AND READING GROUPS by Harvey Daniels (Stenhouse, 2002), and LITERATURE CIRCLES RESOURCE GUIDE by Bonnie Campbell Hill, Katherine L. Schlick Noe, and Nancy J. Johnson (Christopher-Gordon, 2000).

# **Reader's Response**

(Writing Standards, Text Types & Purposes, Strands 1 and 2 and Production & Distribution of Writing, Strands 4 and 6)

#### (Reading Standards, Integration of Knowledge & Ideas, Strands 8)

Use the following questions and writing activities to help students practice active reading and make personal connections to the book. Suggest that students respond in reader's response journals, essays, or oral discussion. You may also want to set aside time for students to share and discuss their written work.

- Imagine you are one of the architects written about in the book and you are asked to design a new school. Write a letter, from the point of view of the architect, describing the materials you will need and what the building will look like. As you think about the design and materials needed, consider the types of spaces children in the school will need to learn, read, eat, study; what you will need to make the building safe and sturdy; and what will make it an attractive place in which to learn.
- 2. How would you define the word *artist*? Who do you think is an artist in your life and why? Do you think architects who design buildings are artists? Can a building be art? Argue why or why not.
- 3. Imagine you have a meeting with the mayor of your city. What would you say to persuade the mayor to support play in school? What makes play meaningful and educational? Do you think children should have time to play in school or only outside of the school day? Why?
- 4. Which parts of the book did you connect to the most? Which parts of the book did you connect to the least? Why? What memory can you share of a time you built something or saw a structure that inspired you?
- 5. Archtober is celebrated each October in New York City to celebrate architecture and design. What parts of *Dreaming Up* make this book a leading example for an Archtober read aloud?

# **ELL Teaching Activities**

(Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3 and Presentation of Knowledge & Ideas, Strands 4–6)

(Language Standards, Vocabulary Acquisition & Use, Strands 4-6)

These strategies might be helpful to use with students who are English Language Learners.

- 1. Assign ELL students to partner-read the book with strong English readers/speakers. Students can alternate reading between pages, repeat passages after one another, or listen to the more fluent reader.
- 2. Have each student write three questions about the text. Then let students pair up and discuss the answers to the questions.
- 3. Depending on students' level of English proficiency, after the first reading:
  Review the illustrations and photographs in order and have students summarize what is happening on each page, first orally, then in writing.
  Have students work in pairs to retell either the plot of the book or key details. Then
- ask students to write a short summary, synopsis, or opinion about what they have read. 4. Have students give a short talk about which play structure or famous structure they
- admire whether for its beauty, purpose, or safety.
- 5. The book contains several content-specific and academic words that may be unfamiliar to students. Based on students' prior knowledge, review some or all of the vocabulary. Expose English Language Learners to multiple vocabulary strategies. Have students make predictions about word meanings, look up and record word definitions from a dictionary, write the meaning of the word or phrase in their own words, draw a picture of the meaning of the word, list synonyms and antonyms, create an action for each word, and write a meaningful sentence that demonstrates the definition of the word.

### INTERDISCIPLINARY ACTIVITIES

(Introduction to the Standards, page 7: Student who are college and career ready must be able to build strong content knowledge, value evidence, and use technology and digital media strategically and capably) Use some of the following activities to help students integrate their reading experiences with other curriculum areas. These may also be used for extension activities, for advanced readers, and for building a home-school connection.

#### Science/STEM

(Reading Standards, Integration of Knowledge & Ideas, Strands 7–9) (Writing Standards, Text Types & Purposes, Strands 1–2 and Research to Build & Present Knowledge, Strands 7 and 8)

(Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3)

- Ask students to research the many different types of materials that can be used to build structures. Why might an architect use steel instead of wood, or bamboo instead of concrete? Students can make a chart of popular building materials to compare the advantages and disadvantages of each. Have students consider brick, wood, bamboo, clay, concrete, steel, glass, iron, recycled materials, and more. Topics to compare include cost of the material, availability, resiliency in natural disasters, typical lifetime, flexibility and ability to shape the material, environmental friendliness, and beauty/appeal.
- 2. Have students investigate why different regions of the world have structures made of different materials. What role does climate and geography play in choice of building materials? What does an architect need to consider in terms of a structure's physical location? How would a structure in an area known to have earthquakes compare to a structure in an area known to have hurricanes/typhoons? How would a structure in the desert compare to a structure near a forest?
- 3. Encourage students to examine the differences between architecture and engineering. How do these two fields depend on each other? What is unique about

each field? What do architects contribute to building a structure? What do engineers contribute?

- 4. Have students study the roles that appeal/beauty, safety, and function/purpose play in the design of a structure. Is one preferable over the other? Why? Do these factors all work together or can they be in conflict with one another? Students can look at one specific structure to see how the architect addressed each of these issues.
- 5. Watch <u>PBS's "Building Big,"</u> a five-part miniseries on bridges, domes, skyscrapers, dams, and tunnels. Each one-hour program explores the different type of structures and what it takes to build them. An educator's guide of activities from PBS is available online.<sup>3</sup>

# Math/STEM

#### (Geometry Standards, Reason with Shapes & Their Attributes, Strands 1–3) (Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3)

- 1. On each page of the book, have students identify the shapes that appear in the child's/children's and architect's structures. Why might they have chosen these shapes? Have students think about why a particular shape would be used. Does it make the structure stronger, more beautiful, or serve other purposes?
- 2. Ask students to think about materials, their shapes, and the forms they can be turned into. What kinds of geometric shapes can be used to create a dome structure? What kinds of geometric shapes can be used to create a pyramid? A sphere? A tower?
- Lead students in a step-by-step activity to create their own geodesic dome, sandcastle, toothpick structure, or floor plan. Instructions can be found online at the <u>archKIDecture website</u>.<sup>4</sup>

# Writing

(Writing Standards, Text Types & Purposes, Strands 1–2 and Production & Distribution of Writing, Strand 4)

- Have students research the life and work of a professional architect, either one from the book or one of their own choosing. What types of structures did he or she design? What challenges did the architect face in pursuing a career in architecture or in building a particular structure? From what does the architect draw inspiration for his or her designs? Based on their findings, what advice would students give to someone who wants to become an architect?
- 2. The author/illustrator Christy Hale begins the book with the quotation: "If they can dream it, they can build it," by Madhu Thangavelu. Who is Madhu Thangavelu? Have students research his life and career. What contributions has he made to architecture and/or engineering?

# Reading

(Reading Standards, Key Ideas & Details, Strand 1 and Integration of Knowledge & Ideas, Strand 9) (Writing Standards, Research to Build & Present Knowledge, Strand 7)

- For second through fourth grade students, have them read Lee & Low Books' <u>Sky</u> <u>Dancers</u> written by Connie Ann Kirk and also illustrated by Christy Hale.<sup>5</sup> What is the central idea of Sky Dancers? What does the story teach about architecture and the process of building a structure? How does Sky Dancers compare to Dreaming Up?
- 2. For kindergarten and first grade students, have them read Bebop Books' <u>Shapes</u> <u>Where We Play</u>.<sup>6</sup> What shapes can be found at a playground? Talk about the similarities and differences among shapes. How do shapes help us? Why is it important to study how shapes work in our world?

<sup>&</sup>lt;sup>3</sup> http://www.pbs.org/wgbh/buildingbig/educator/index.html

<sup>&</sup>lt;sup>4</sup> http://archkidecture.org/teach/

<sup>&</sup>lt;sup>5</sup> http://www.leeandlow.com/books/110/pb/sky\_dancers

<sup>&</sup>lt;sup>6</sup> http://www.leeandlow.com/books/267/pb/shapes\_where\_we\_play

#### Art

(Writing Standards, Research to Build & Present Knowledge, Strand 7 and 8) (Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3)

Have students select one of the notable structures profiled in the book to research further. When was it constructed? Where is it located? What is the purpose of/use for the structure? Is it open to the public to visit? How does the structure represent the country or culture where it is located? What role did safety play in the design of the structure? What role did beauty play? What challenges existed in designing and completing the structure?

#### **Home-School Connection**

(Speaking & Listening Standards, Comprehension & Collaboration, Strands 1–3) (Writing Standards, Text Types & Purposes, Strand 2 and Research to Build & Present Knowledge, Strand 7)

- Invite students with their families to find a notable structure in their community or state and draw/create a concrete poem about the appearance and use(s) of the structure. The poem may also address some of the following questions: Who built the structure and when? Where is it located? What is it made of? Why were those materials used? What is special about the design? What challenges did the architect have in creating this structure? How is it special or typical of other buildings in the area?
- 2. Encourage students, with their siblings, to build a structure at home. If it is large, they can take a picture of it or draw it to display in class. If it is small and secure, they may wish to take it to class. What materials did they use? What is the purpose of the structure? What did they think about when choosing the materials and design of the structure? What difficulties did they face in building it? What are the advantages of the structure. For example, is it safe, sturdy, attractive, cheap, and/or easy to build?
- 3. Challenge students with their families to study their own home. How would they describe it? What materials were used to construct it? Students can show what their home looks like by writing a concrete poem in the shape of their home.

#### ABOUT THE AUTHOR AND ILLUSTRATOR

**Christy Hale** has illustrated numerous award-winning books for children, including several for Lee & Low Books. *Dreaming Up* is the second book for which she is also the author. The first book she wrote and illustrated is *The East-West House: Noguchi's Childhood in Japan*, a *Kirkus Reviews* Best Book of the Year selection. Hale also illustrated *Elizabeti's Doll* and its two sequels. As an art educator, Hale has written about artists for *Instructor* magazine's Masterpiece of the Month feature and workshops. Her inspiration for *Dreaming Up* dates back to her first encounter with Barcelona's La Sagrada Família. "I'm sure I made the sandcastle connection way back then," says Hale. From then on "it became a fun challenge to think of the many ways kids build, and then buildings that corresponded to their building play." Hale lives with her family in Palo Alto, California. Visit her online at christyhale.com.

Awards and honors Dreaming Up: A Celebration of Building has received include:

- Best of the Best 2012, Chicago Public Library
- Nonfiction Honor Winner, Boston Globe-Horn Book Award
- 2012 California Book Award
- Best Children's Books of the Year, Bank Street College of Education
- Children's and Young Adult Book Award Honor, International Reading Association

#### **Book Information**

\$18.95, HARDCOVER 978-1-60060-651-9 40 pages, 8-3/4 x 8-3/4 \*Reading Level: Grades 1–2 \*Reading level based on the Spache Readability Formula Interest Level: Grades PREK–3 Guided Reading Level: I

Themes: Building, Children's Play, Art, Concrete Poetry, Architecture, Creativity, Engineering

#### **RESOURCES ON THE WEB**

Learn more about *Dreaming Up: A Celebration of Building* at: https://www.leeandlow.com/books/2814

**BookTalk with Christy Hale on Dreaming Up: A Celebration of Building:** http://www.leeandlow.com/p/christy\_hale\_bt.mhtml

Order Information On the Web: http://www.leeandlow.com (general order information) https://www.leeandlow.com/books/2814 (secure online ordering)

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