

muse®

Fun by Design

Playgrounds have changed over time to be more than safe places to gather children. See what it takes to design a playground where all children can explore, problem-solve, and have fun.

CONVERSATION QUESTION

What is important in playground design?

TEACHING OBJECTIVES

- Students will learn how playground design has changed over time
- Students will learn about the benefits and features of alternative playgrounds
- Students will learn how designers make playgrounds accessible
- Students will identify design solutions
- Students will collect evidence that supports an argument
- Students will identify patterns and models
- Students will engage in argument from evidence
- Students will write informative text
- Students will write an opinion piece supported with reasons and evidence
- Students will apply information to different contexts
- Students will write an opinion piece using reasons and evidence
- Students will use design skills to identify a problem and solution



In addition to supplemental materials focused on core STEM skills, this flexible teaching tool offers vocabulary-building activities, questions for discussion, and cross-curricular activities.

SELECTIONS

- **We Love Playgrounds**
Expository Nonfiction, ~750L
- **The Thrill of Getting Grubby**
Expository Nonfiction, ~950L
- **Fun for Everyone**
Expository Nonfiction, ~850L

We Love Playgrounds

pp. 10–11, Expository Nonfiction

Learn how playgrounds have changed and evolved over the past 100 years to help students identify design solutions.



RESOURCES

- Designing Solutions

OBJECTIVES

- Students will learn how playground design has changed over time
- Students will identify design solutions
- Students will write informative text

KEY VOCABULARY

- **dodged** (p. 10) moved quickly to get out of the way
- **delinquents** (p. 10) young persons who regularly do illegal or immoral things
- **supervisors** (p. 10) people who oversee to make sure things are going well
- **leisure** (p. 11) free time used for pleasure

ENGAGE

Conversation Question: What is important in playground design?

Ask students if they think what is important in playground design is the same now as it was 100 years ago. Have students draw a picture of what they think one of the earliest playgrounds looked like and compare it to a modern playground. Ask students to predict how playgrounds have changed before reading the article.

INTRODUCE VOCABULARY

Display the vocabulary words and ask students to share how these words might relate to the topic of playgrounds. Next, have students find the words in the article and explain what each word means using context clues. Answer questions and clarify any misunderstandings about the definitions.

READ & DISCUSS

Have students read the article and then lead a class discussion based on the following prompts.

- Why were the first playgrounds started in the early 1900s?
- How did playground designs in the 1960s cause new problems?
- Why is playground design more complex now than in the past?

CONCEPT/SKILL FOCUS: Designing Solutions

INSTRUCT: Ask students to identify the problems playground designers have worked to solve in the article. Explain that designers work to solve problems and these problems change through time. Have students use the *Designing Solutions* graphic organizer to describe solutions to each problem as found in the article. Encourage students to choose the details that explain how each design was a solution to the given problem.

Tell students that playground design is still growing and changing. Have students discuss and answer the question: What problem do you imagine playground designers will need to solve next?

ASSESS: Review the graphic organizer and discussions to assess if students are able to identify design problems and solutions.

EXTEND

Language Arts Have students work with a group to design a new piece of playground equipment. Have them explain how this equipment will enhance the playground and solve a playground problem. Students share their design by making a poster that shows and describes the important features.

Designing Solutions

Use this chart to organize information about how playground designers have solved problems to meet the needs of children with diverse needs.

Page	Problem	Solution

What problem do you imagine playground designers will need to solve next?

How would you solve this problem?

The Thrill of Getting Grubby

pp. 12–15, Expository Nonfiction

Where are the swings and slides? Use this article to show students how evidence is used to support alternative playground design.



OBJECTIVES

- Students will learn about the benefits and features of alternative playgrounds
- Students will collect evidence that supports an argument
- Students will write an opinion piece supported with reasons and evidence

KEY VOCABULARY

- **potentially (p. 13)** having a chance or possibility that something will happen or exist in the future
- **raw materials (p. 13)** materials such as wood, metal, or rock that things are made from
- **alternative (p. 15)** one of two or more available possibilities
- **makeshift (p. 15)** used as a usually rough and temporary replacement for something

ENGAGE

Conversation Question: What is important in playground design?

Ask students what they think of when they hear the word ‘playground.’ Have students draw a picture of what they think they would find in a playground. Then have students predict what might be different between a traditional playground and an ‘adventure playground.’

INTRODUCE VOCABULARY

Together, review the vocabulary words and read them aloud. Then ask students to make predictions about the topic of the text using the vocabulary words. If necessary, help students guess the topic by revealing the title of the article.

READ & DISCUSS

Have students read the article and then lead a class discussion based on the following prompts.

- Why were the first junk playgrounds created?
- What types of things does one find on a junk playground?
- Why aren’t adults invited into junk playgrounds?

CONCEPT/SKILL FOCUS: Argument from Evidence

INSTRUCT: Use this article to model how evidence is used to support the argument for alternative playgrounds, such as, “It’s endless, endless fun for the imagination,” and “Adventure playgrounds trust that kids are smart.” Have students work in pairs to collect five statements from the article they feel best support the design of alternative playgrounds.

ASSESS: Students share the statements they chose and explain why this provides the best evidence to support the argument for alternative playgrounds.

EXTEND

Language Arts Students write a pretend proposal to advocate for an alternative playground. The proposal should include the basic design features and provide evidence for why this playground is a benefit for students.

Fun for Everyone

pp. 20–23, Expository Nonfiction

Use this article about designing accessible playgrounds to help students recognize and apply creativity and problem-solving skills in design thinking.



RESOURCES

- Accessible Design

OBJECTIVES

- Students will learn how designers make playgrounds accessible
- Students will identify solutions to design problems
- Students will use design skills to identify a problem and solution

KEY VOCABULARY

- **accessible (p. 21)** able to be reached or approached
- **sensory-processing (p. 22)** how someone takes in information from their environment
- **inclusive (p. 23)** covering or including everything or everyone
- **universal design (p. 23)** the planning of buildings, products, and environments that are accessible to all people

ENGAGE

Conversation Question: What is important in playground design?

Ask students to share what playground features and equipment would be a problem for children with different physical abilities. Have students share examples of how playgrounds can be adapted to include more children.

INTRODUCE VOCABULARY

Display the vocabulary words. Ask volunteers to define each word. Then have other students use the word in a sentence. Provide additional information and examples for words/terms as necessary. Ask students to share ideas about how each word might be related to the topic of accessible playground design.

READ & DISCUSS

Have students read the article and then lead a class discussion based on the following prompts.

- How does a designer need to be creative to design playgrounds that work for everyone?
- How did the sandbox example show universal design?
- What can be done to make play areas more accessible for children with autism or sensory processing challenges?

CONCEPT/SKILL FOCUS: Designing Solutions

INSTRUCT: Return to the conversation question to further guide discussion about how universal design is necessary to make playgrounds available to all children. Have students use the *Accessible Design* graphic organizer to describe solutions to each problem as found in the article. Review the first one completed as an example.

ASSESS: Review the graphic organizer and discussions to assess if students are able to identify design problems and solutions to meet the needs of all children.

EXTEND

Engineering Have students assess a playground or other play space for accessibility. Using notes on potential problems, have groups of students come up with a design solution and present their ideas to the class.

Accessible Design

Use this chart to organize information about how designers have solved problems to make play spaces accessible for children with diverse needs.

Page	Problem	Solution
20	Swings are designed for children who can hang on to the chains.	Design swings that have backs and harnesses to support those who can't hang on.