

# Let's Build a Dam!

## Teacher's Guide

### An Educator's Guide for grades K-3

May, Lily, and Noah are spending a fun day exploring and discovering their natural environment. As they create and build a dam together, they meet many imaginative characters. The siblings display teamwork, determination, and creativity. But things don't always go as planned. . . .



North  
South



## Introduction: Before Reading

- Introduce the students to the book *Let's Build a Dam!*, written by Daniel Fehr, and illustrated by Mariachiara Di Giorgio. Discuss the role of each artist.
- Discuss the title and the front and back cover illustrations as a motivation.
- How do the illustrations contribute to the meaning?  
What do they tell the reader about the book?
- Open the book and display the continuous cover illustration.  
Why would the illustrator choose to design a continuous cover?
- What is a dam? Write “dam” on the board.
- Have students brainstorm the meaning of “dam” based on previous knowledge and the cover illustration. Chart responses.
- Before determining the true meaning of a dam, invite students to take a picture walk through the book.
- Continue to brainstorm and chart details from the illustrations.
- Create a definition with the students for “dam.”

**A dam is a structure designed to hold back water in a lake, river, stream, or other body of water.**

**Draw a picture of a dam.**







## Make Predictions Based on the Illustrations

Who are the characters?

Where and when does the story take place? (setting)

What is happening? (plot)

Is there a problem or conflict in the story?



## Discussing Genre: Real or Make-Believe?

Invite students to predict whether the book *Let's Build a Dam!* is **fiction**, **nonfiction**, or **realistic fiction**. Look at the characteristics for each genre. Find examples from other books the class has read.

**Nonfiction:** A true story about a real person or event.

**Fiction:** Could not happen in real life. Make-believe. Fantasy.

**Realistic fiction:** Believable events and characters. Realistic means that the events and characters in the story seem like they could happen in real life.

Nonfiction	Fiction	Realistic fiction





## WORD WORK

### Essential Questions

1. Why is it important to understand new vocabulary words and phrases in a story?
2. What strategies can you use to determine unknown words?

### Brainstorm Strategies\*

#### Examples:

Sometimes we do not recognize a word because they have an added beginning or ending sound (prefix or suffix).

**Strategy:** Find the smaller word within the bigger word.

**Strategy:** Write down any unknown word or phrase that you come across during reading.

(Remember: Some words have multiple meanings.)

**Strategy:** Reading unknown words in and out of context is helpful.

Give each student a New Vocabulary, Handout #2: *Let's Build a Dam!*

Allow students to work independently or in small groups.

*\*This activity can be broken down into multiple lessons, depending on the student's abilities.*





Name: \_\_\_\_\_

## New Vocabulary, Handout #2: *Let's Build a Dam!*




Name: \_\_\_\_\_

## New Vocabulary, Handout #2: *Let's Build a Dam!*

Write each new vocabulary word in a box.

anchored  
boarding  
build  
dam  
disbelief  
dragged  
emperor  
fisherman  
fishing  
lure

pirates  
refused  
resist  
rob  
ship  
sternly  
stones  
subjects  
village

### Find:

1. Words that you can act out
2. People
3. Words that have multiple meanings
4. Words that have the same meaning
5. Words you can draw and label





## During Reading

**Read/listen to the story uninterrupted**

**Read/listen to the story a second time**

**As you read/listen to *Let's Build a Dam!*:  
Think about . . .**



- New vocabulary words in context.
- How the illustrator uses facial expressions and body language to enhance the meaning and tone of the story.
- Where and when the story take place. Setting and how it affects the characters and plot development.
- The feelings evoked by the setting.
- The characters and how they are related.
- How each of the children show their creative imagination in the story.
- The individual personality traits, motivations, and accomplishments of the characters.
- The tone of the story. How does the author create humor?
- Conflict. How is it resolved?
- Problems and solutions in the story.
- Central themes and ideas. (Family, friendship, exploration, determination, creative imagination).
- The genre. Could this really happen? (Fiction vs. realistic fiction.)
- Games and activities you play with your siblings or friends.
- How Daniel Fehr structures the text. How does he arrange his sentences?
- Words and phrases and how they convey meaning.
- How word choice affects the mood.
- Passage of time. How does time pass?
- Cause and effect relationships.





## After Reading: Making Text Connection

Go back to the story with a reading partner and find evidence to support the following. Use illustrations and words from the story.

1. A dam is a structure designed to hold water back from a river, stream, or other body of water.
2. The characters are working hard together to build the dam.
3. The characters live near the water.
4. May, Lily, and Noah are siblings.
5. The characters are siblings and good friends.
6. May and Lily want to build a bigger dam.
7. Noah likes to fish.
8. Noah wants to help.
9. May and Lily are the older siblings. Noah is their little brother.
10. The king in the story does not want to help build a dam.
11. May and Lily command respect and get what they want.
12. Noah is little and does what he wants.
13. May, Lily, and Noah look after each other.
14. The dam is destroyed. It is time to go home.
15. May, Lily, and Noah are loyal to one another.
16. The siblings will play together again tomorrow.
17. The mother in the story is familiar with her children's adventures.
18. This story is fiction.
19. The author uses humor.



What is happening in the story, and what is meant by the following sentences?

- *“Not far from where they lived . . .”*
- *“Noah would fish in a puddle.”*
- *“Get involved!”*
- *“We don’t take, we build.”*
- *“It would have been a really good day if Noah hadn’t wanted his stone back . . .”*



Name: \_\_\_\_\_

## Character Mapping, Handout #3: *Let's Build a Dam!*

Characters in books have traits, motivations, and behaviors that affect what happens in the story. Under each character's name, write bullet points telling what you learned about May, Lily, and Noah.

Lily	May	Noah

How do you relate to the characters? Write a paragraph explaining your opinion or feelings about them.



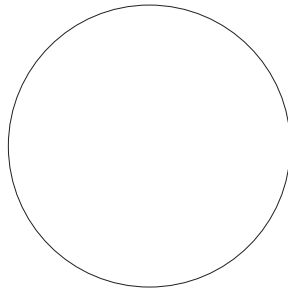
Name: \_\_\_\_\_

## Creative Imagination, Handout #4: *Let's Build a Dam!*

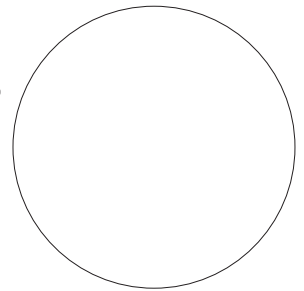
Fill in the thought bubbles for the characters. What were they thinking?



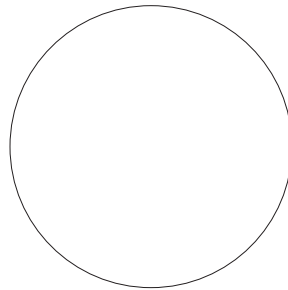
May



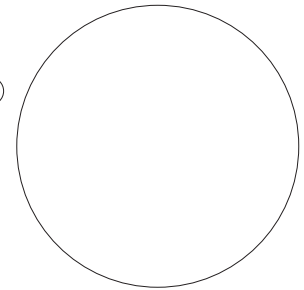
The King



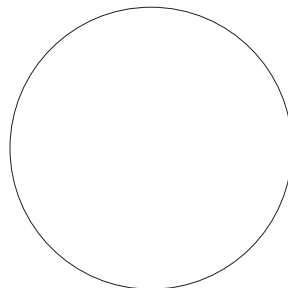
Lily



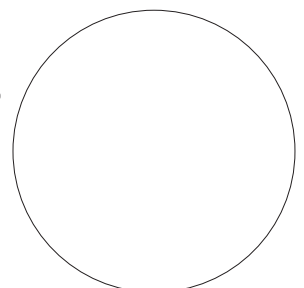
The King's  
subjects



Noah



A pirate





Name: \_\_\_\_\_

## Cause and Effect Relationships, Handout #5: *Let's Build a Dam!*

Cause	Effect
	May, Lily, and Noah had to go home
May and Lily had a creative imagination	
	The kids were wrapped in blankets and had hot chocolate
Noah wanted his green stone	
	The story <i>Let's Build a Dam!</i> could really happen
The dam was too small	
	The king yelled, "Help!"





## Dams: Making Real-World Connections

After reading the story, what did you learn about dams?

**What** is a dam?

**Where** would you find a dam?

**Why** would you need to build a dam?

**How** can a dam be built?

**What** materials can be used?

**Who** builds dams?



In the story *Let's Build a Dam!*, the characters May, Lily, and Noah build a dam near their house for fun, BUT in the real-world, dams are built by humans and animals for many reasons.

**1. Watch this PBS video on how beavers build dams!**



**2. Research dams made by humans.**

**Create a PowerPoint presentation.**

**Share with the class/group.**

- What are dams?
- When did people start building dams?
- Where are dams built?
- Why do people build dams?
- How can I be safe around dams?

**Dam info and safety**



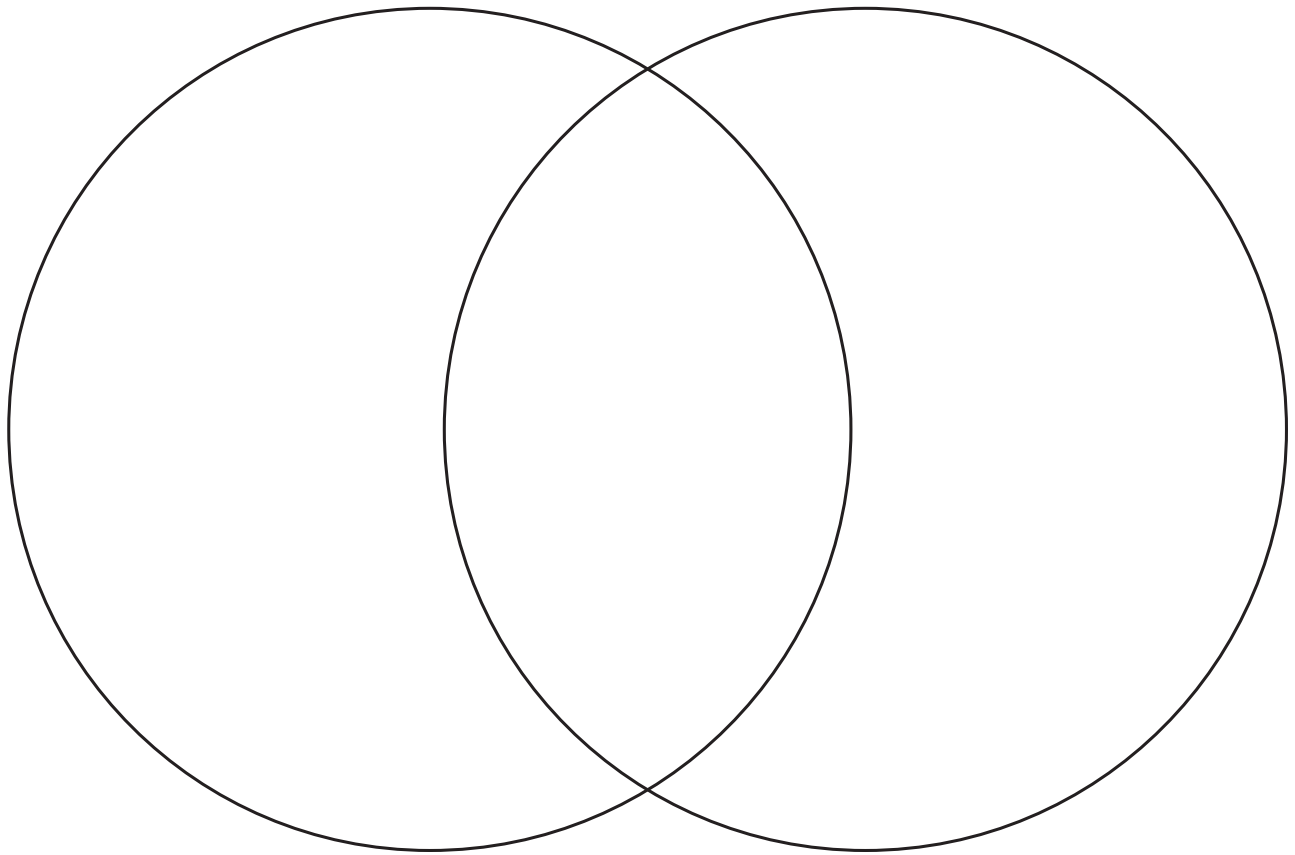


## STEAM connections

Compare and contrast human-made vs. animal-made dams.

Human-made dams

Dams made by beavers





## Let's Build a Beaver Dam!

This can be done in pairs or small groups. Working in small groups encourages teamwork and reinforces cooperative learning.

### You will need:

1. **Any waterproof container deep enough to hold water:** a flat rectangular baking dish, plastic container, water table, etc.
2. **Building materials:** Recycled items found outdoors, at home, or in the classroom: mud, dirt, sand, rocks, sticks, string, toothpicks, plants, leaves, a towel.
3. **Tools:** What would a beaver use? Or just use your hands!
4. **Water:** hose, bucket, sink.

### What to do:

1. Create a sketch or plan for your dam.
2. Pretend you are a beaver looking to build a dam. What would a beaver use?
3. Get your container ready.
4. Gather your dam-building materials! Make sure to think and act like a beaver. Mix water and dirt to make a nice sticky mud!
5. Build up your dam using layers of mud, sand, twigs, or whatever materials you collected.
6. Test it! Slowly pour a small amount of water on one side of the dam. Did the water break or go through your dam?
7. Adjust it as needed. Add materials.

Remember: Some water will trickle past your dam; a beaver dam on a stream or river doesn't completely hold back the water.





**Name:** \_\_\_\_\_

## **Building a Dam, Handout #6: *Let's Build a Dam!***

Who was in the group?

What was the problem to be solved?

Did your dam hold **most** of the water back?

### **Process:**

What were the steps in your process?

How did you plan what to build?

Did you make a sketch before starting?

Did you test your materials before or during building?

### **Teamwork:**

How well did your team work together?

Did everyone share ideas?

Did you make decisions by voting, or was there a leader?

### **Design:**

Did you test your design?

Did you need to adjust it as you started to build? How?

Did you change your design along the way? Explain.

### **Challenges:**

What were the challenges you encountered?





## Think About It ...

How can dams be damaging to the land around them and the animals that live nearby?

Consider further research that you and your students can do together.

**Resources for further learning:**

<https://archive.internationalrivers.org/environmental-impacts-of-dams>

<https://www.dw.com/en/five-ways-mega-dams-harm-the-environment/a-53916579>

<https://theconstructor.org/structures/environmental-impacts-of-dams/236/>

<https://www.americanrivers.org>

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