

THE MYSTERY OF SANDY BOTTOM CREEK

Dear Presenter,

This is a **STORY TELLING** activity for approximately 25 ten year olds. **YOU MUST PRACTICE** telling the story at home before you attempt to tell it during the water festival. When you “practice” the story at home, visualize 25 little bodies watching and listening to you. Plan when you will draw the student’s attention to the large illustrations and when your voice will command the students to look at you. Personalize the story, make it as interesting as you can.

As each new group of students arrive, find the classroom teacher, introduce yourself, and let the teacher know this is a great story with an activity that follows and you will need his/her assistance. If you do not ask for assistance, the teacher will assume that YOU are the EXPERT and they are the observer! Plan when you will ask the teacher for assistance (like choosing which student will be a great dead eagle). **DO NOT** hesitate to call the teacher by name and politely ask for their assistance with ANY of your needs.

As each session begins, introduce yourself to the students. “Good morning, my name is... and I work for..., I am a..... or simply I am happy to be here today.” Then introduce the topic of this presentation. Each step of this presentation is explained in this packet. **These are recommended guidelines and do not have to be followed exactly word for word. However, you may present this material just as written. Feel free to personalize the presentation to suit your personality.**

Thank you for volunteering to tell the story of “**The Mystery of Sandy Bottom Creek.**” Have fun, enjoy yourself, and we hope you will consider volunteering again next year.

Big Sioux Water Festival

THE MYSTERY OF SANDY BOTTOM CREEK

MATERIALS LIST:
(FOR 6 SESSIONS WITH 24 STUDENTS PER SESSION)

CONSUMABLES

- Water maze handouts for students (175)

NON-CONSUMABLES

- 9 white neck cards: 1 farmer, 8 raindrops
- 7 blue neck cards: 4 cattails, 1 mouse, 1 muskrat, 1 eagle
- 15 red neck cards: 8 shellfish, 4 minnows, 2 bass, 1 boy
- Minimum of 8 blue plastic chips
- Minimum of 16 red plastic chips
- 1 text folder with instructions, 10 story cards, and 2 activity cards
- 11 - 30" x 40" foam-core storyboards

THE MYSTERY OF SANDY BOTTOM CREEK

ROOM REQUIREMENTS

- A large easel
- Large room for story telling and “moving” activity

PRE-PREPARATION

Pre-preparation is vital! You must be comfortable TELLING the story.

- Check materials against material list
- Practice telling story
- Practice leading the student activities
- Become familiar with student activity supplies

PREPARATION

- Arrive early (at least 45 minutes)
- Arrange room as necessary. A suggestion would be to remove chairs and have students sit on the floor during the story telling
- Check and arrange supplies
- Set up easel and arrange storyboards
- Plan “stage” for student activities

THE MYSTERY OF SANDY BOTTOM CREEK

EDUCATIONAL INTENTIONS:

- Introduction to bioaccumulation
- Discuss factors contributing to pollution of resources
- Basic knowledge of food chain

INTRODUCTIONS

Have the students sit at desks or on the floor. It is important for every student to be able to see the illustrations. Introduce yourself, tell students they will be hearing the story: "The Mystery of Sandy Bottom Creek." Let students know the whole class will try to solve the mystery at the end of the story. You may wish to ask a student to help change the storyboards for you. This will allow you to walk around the room. Note: It is guaranteed the class will go to sleep if you stand in one place and read the story!

TELLING THE STORY

The story, with black and white illustrations, can be found in this folder.

TITLE PAGE

Draw students attention to pictures on title page. Point out areas of interest. Be sure to mention the name of the illustrator (Tanya Marsh, an 8th grade student from Brookings Middle School).

PAGE 1

Use a narrator's voice. Point out some of the area's illustrated resources: trees, good planting soil, and WATER, etc.

PAGE 2

Start with narrator's voice until quote, then use a voice from "a person in Cedarville" for quote, along with some body gestures or actions (i.e. a farmer with one hand in strap of bibbed overall, pieces of grass in mouth, sort of mumbling quote).

PAGE 3

Use a narrator's voice. Personalize here and allow students to enjoy the illustrations of King's Folly Marsh.

PAGE 4

Use a narrator's voice. May begin some of the narration for page 5 before changing the illustration.

PAGE 5

Use a narrator's voice. Body actions tend to go well with the text: "up in arms", "health official", "a serious face" when boy reported ill, "it's a mystery" with questioning voice, a shake of the head and a shrug of the shoulders. **STUDENTS WILL NOT KNOW THE MEANING OF PESTICIDE.** *Pesticide - a chemical placed on crops to kill unwanted bugs.*

PAGE 6

Authoritative voice as a narrator. A head nodding yes about contribution of small quantities of pollutant, a shoulder shrug with question.

PAGE 7

Narrative voice or almost a newscaster, the suspense is building.

PAGE 8

Anxious voice as a narrator. Towns people are concerned, worried, and confused.

PAGE 9

Still anxious but more analytical, trying to put the pieces together.

PAGE 10

A map to help figure out the mystery.

**LEAVE MAP DISPLAYED FOR REFERENCE
WHILE DOING STUDENT ACTIVITIES
TO SOLVE THE MYSTERY**

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STUDENT ACTIVITIES

The following two activities will be lead and directed by you. **Remember you are still telling the story.** You will need to explain how each of the steps could happen. Some guidelines are provided as recommendations.

- Keep an eye on the clock. These activities can get to be time consuming. Students will tend to want to have discussions about the neck cards, their roles, the plastic chips, etc.
- Do not allow students to switch cards.
- Designate an area of the room for the activity.
- If space allows, set the stage in the room by designating an area for the field, the marsh, the river, & New Port City.
- It is important to try and include all the students in the activities. If the class is large, be sure the students who don't get to participate in the first activity get to participate in the second activity.
- If the class size is small, you may have to include the teacher, any other volunteers and yourself as characters in the story.
- Both activities are written on Activity Cards found in this folder.
- Introduce the definition of bioaccumulation during Activity 1. Reiterate it after Activity 2 and in further topic discussions.
- Both activities are about bioaccumulation. Spend a few minutes explaining how pesticides accumulate throughout the food chain, resulting in many animals, including humans, getting sick and in some cases (such as the eagle in our story) dying.

THE MYSTERY OF SANDY BOTTOM CREEK

ACTIVITY 1

- Give one white neck card to 9 students: 8 raindrops and 1 farmer
- Give one blue neck card to 7 students: 4 cattails, 1 mouse, 1 muskrat and 1 eagle (ask the teacher prior to the story telling which student you should choose to play the role of the dying eagle)
- Give farmer 8 blue plastic chips representing pesticide (state the meaning of the word pesticide again) that he/she uses on their crops
- Ask farmer to carefully distribute (sprinkle) pesticide over the land.
- Each raindrop picks up one blue chip. Rain dissolves pesticide and carries it to the marsh
- 4 cattails “drink” 2 raindrops and now each have 2 blue chips
- Mouse “eats” one cattail and muskrat “eats” 3 cattails. Each will take blue chips from cattails
- Eagle SWOOPS down and “eats” mouse. Eagle is still hungry, however, so it SWOOPS down and “eats” muskrat. Eagle collects all 8 blue chips from mouse and muskrat. Eagle begins to fill ill and then dies
- Take a few minutes to introduce and discuss bioaccumulation
- Collect all white and blue cards along with 8 blue chips
- Explain the eagle mystery. Eagle ate 2 animals from King’s Folly Marsh - two animals that were loaded with pesticide. The Eagle-death mystery is solved. By what about the boy? Remember the boy had never visited Cedarville or King’s Folly Marsh

THE MYSTERY OF SANDY BOTTOM CREEK

ACTIVITY 2

- Include any students who were not involved in Activity 1
- Give one white neck card to 9 students: 8 raindrops and 1 farmer
- Give one red neck card to each remaining student. If there are not enough students, some of the white card students who were not involved in Activity 1 can also have a red card as long as it is not a shellfish card
- Give farmer 16 red plastic chips representing pesticide (review one more time the meaning of the word pesticide) he/she uses on crops
- Ask farmer to carefully distribute (sprinkle) pesticide over the land.
- Each raindrop picks up two red chips. Rain dissolves the pesticide and carries it to the marsh
- At the marsh, each shellfish “filter feeds” from water picking up 2 red chips
- Also at the marsh, each minnow “eats” 2 shellfish (gaining 4 red chips each)
- Minnows swim to Johnstown River
- Each bass “eats” 2 minnows, collecting 8 red chips each
- Boy goes fishing and catches both bass for supper (collecting all 16 red chips). Boy eats the bass for dinner and gets sick
- Reiterate the meaning of bioaccumulation - at this point, most students will have solved the mystery and are excited about talking with you and each other about it.
- Collect all white and red neck cards and red chips
- Lead a short discussion about “The Mystery of Sandy Bottom Creek.” Make sure to have students brainstorm ideas about how they would correct the problems that happened in Cedarville. All ideas should be given consideration and a lively discussion should occur

THE MYSTERY OF SANDY BOTTOM CREEK

FINALLY

- Hand out water maze handouts
- Thank the children for attending your session, compliment them on their behavior and their ideas.
- Arrange storyboards for next session. Arrange supplies for next session

FINAL CLEAN UP AFTER LAST SESSION

Approximately 15 minutes

- Place the 10 storyboards into large storage case
- Place protective board in front of storyboards
- Replace all story, cue and activity cards into folder
- Replace all blue & red plastic chips into their respective Ziplock bags
- Replace neck card into their respective Ziplock bags for storage
 - ▶ 9 white neck cards (1 farmer, 8 raindrops)
 - ▶ 7 blue neck cards (4 cattails, 1 mouse, 1 muskrat, 1 eagle)
 - ▶ 15 red neck cards (8 shellfish, 4 minnows, 2 bass, 1 boy)
- Place all Ziplocks and the presenter kit instruction folder into large storage case