Education Guide

Diary of a Worm, Spider and a Fly

Presented by
Oregon Children’s Theater
Adapted from Diary of a Worm, Diary of a Spider, and Diary of a Fly
By Doreen Cronin with Illustrations by Harry Bliss

Friday, October 25, 2013 • 9:30am and 12:30pm
Tickets: $5.50 per person

Recommended for Grades K through 5

Alberta Bair Theater for the Performing Arts
2801 Third Avenue North
Billings, Montana 59101
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Valley Federal Credit Union Education Series

Alberta Bair Theater
for the performing arts
DIARY of a WORM, SPIDER and a FLY

Activities

1. **An Introduction to Insects!** — The introduction portion of this activity contains insect unit resources and ideas and the vocabulary and concepts discussed in the play. Part Two contains a range of short activity suggestions on a wide range of topics, including life cycles and metamorphosis, climate, migration, the food chain and needs of living things, and more, designed for teachers to pick and choose their own additions to their existing science lesson planning.

2. **Camouflaged Creatures** — Introduce students to predator and prey relationships, and ways in which animals use camouflage to protect themselves. Students will apply these concepts by drawing a butterfly wing pattern that could keep this insect safe.

3. **Diary of a Second Grade Environmentalist** — Students create environment journals in which they observe and record their roles as consumers, their impact on the world around them, and ways in which they can help the environment. Students also compare and contrast their role with Worm’s, and as a class, create a class Environment Code.

4. **A Bug’s Perspective** — After learning about setting and perspective, students create illustrations and writing that contrasts their perception of their surroundings (their house, the classroom, etc.) with that of an insect.

5. **The Jitterbug Ball** — Teach your students to jitterbug and dance the afternoon away! Use this activity as a fun, on-your-feet exercise, encouraging students to use their movements creatively to portray different kinds of insects and different character traits.

Reading List and Online Resources

Adapted from *Diary of a Worm, Diary of a Spider, and Diary of a Fly* by Doreen Cronin with illustrations by Harry Bliss. Book and music by Joan Cushing. Directed by Stan Foote.

ABOUT THE SHOW

Joan Cushing’s script combines the books Diary of a Worm, Diary of a Spider, and Diary of a Fly into a single play, with characters and events added and expanded. The following summary is based on the play, and not Doreen Cronin’s series.

It’s the first day of school, and just like human students, Worm, Spider, and Fly are filled with mixed emotions. Excited to go back to school and see their friends but dreading their homework, Worm, Spider and Fly each confide their own secret dreams, eagerness, and insecurities to their diaries. Although faced with challenges unique to their own species (Spider is nervously waiting to shed his skin, Worm feels shy and self-conscious because he doesn’t have any legs, and Fly is often frustrated by her 327 brothers and sisters), these young creatures also face questions, problems, and milestones familiar to any other elementary school student.
Spider, Worm, and Fly begin their first day back at school with their classmates Ant and Butterfly. Their teacher, Mrs. McBee, asks each student to share something unique and interesting about themselves. Each one responds with gusto — Spider can shed his skin, Butterfly will return to Mexico when the weather gets cold, Ant is very strong and can carry things on his head, Fly has amazing flying skills and wants to be a superhero. But Worm, who is very shy, can’t think of anything interesting to say about himself. His self-doubt increases when Spider and Fly show him all of the cool things they can do with their many legs. Though Worm is very funny and can always make his friends laugh, he still doesn’t think there’s anything interesting about himself.

The three friends spend time together at school — practicing things like avoiding vacuum cleaners in a safety drill, working on science projects, and attending the Jitterbug Ball — and after school, jumping on Spider’s web trampoline and exploring the tunnels at Worm’s underground home. Worm tags along to Fly’s flying class and feels even more embarrassed about his lack of legs and wings. Fly is given an opportunity to test her bravery and superhero skills when she learns that her Aunt Rita is trapped between a window and its screen. Fly coordinates a daring rescue plan with the help of Worm and Ant, and proudly brings Aunt Rita to ‘Show and Tell’ to describe her achievement.

Spider, meanwhile, is absent from school — he’s finally begun to shed his exoskeleton! After he’s finished shedding, he becomes larger and more grown-up, and struggles with whether or not he should act like a grown-up or still play in the dirt with his friends.

With the help of his friends, Worm realizes that there are unique and wonderful things about being a worm — helping the earth by helping things grow! His self-confidence soars as he proudly announces all the amazing things about being a worm (digging, being able to grow new segments, having aortic arches) at school to his teacher and classmates.

The play ends on the last day of school, and Spider, Fly, and Worm all reflect on their past school year and changes they’ve gone through to their diaries. Even though he’s more of a grown-up, Spider realizes that Worm and Fly are still his best friends. Fly realizes that her dream of being a superhero wasn’t silly or foolish at all. And Worm’s shyness has vanished, as he proudly remarks on his newfound abilities for stand-up comedy and his discovery that he is a friend to the earth. All three of them are pleased with their school year and excited for the new adventures that summer vacation will bring.
The Author, Doreen Cronin

Doreen Cronin grew up in Merrick, Long Island. As a child, Cronin thought she’d grow up to be either a police officer or an FBI agent. Instead, she started law school. When her father, struck by illness, died suddenly, she suspended her law studies and pursued a career in publishing. Soon after her father’s death, Cronin awoke in the night and wrote Click, Clack, Moo: Cows That Type, her first book. She knew that it would have made her father laugh, just as she laughed at the hilarious stories he told her. She returned to law school, and was practicing law when the book was selected as a Caldecott Honor Book in 2001. Giggle, Giggle, Quack soon followed, and Cronin continues to write humorous stories about Farmer Brown and his animals today. In 2003, she began the Diary series with the publication of Diary of a Worm. Diary of a Spider and Diary of a Fly completed the series in 2005 and 2007. She lives in New York with her husband and two daughters.

The Illustrator, Harry Bliss

Harry Bliss is a cartoonist and cover artist for The New Yorker magazine. Bliss’s first children’s book, A Fine, Fine School by Newbery Award-winning author Sharon Creech, was a New York Times bestseller. Bliss has illustrated many picture books since then including Which Would You Rather Be? by William Steig, Countdown To Kindergarten, Mrs. Watson Wants Your Teeth, and A Very Brave Witch, all by Alison McGhee, the number one New York Times bestselling series by Doreen Cronin: Diary of a Worm, Diary of a Spider, and Diary of a Fly, and Louise, the Adventures of a Chicken by Kate DiCamillo. Luke on the Loose, the first book Bliss both wrote and illustrated, was published in 2009. In addition, he is the 2007 winner of Nickelodeon Magazine’s Distinguished Achievement Award for children’s design and illustration. He lives in South Burlington, Vermont.

The Playwright, Joan Cushing

Joan Cushing, former elementary school teacher and performer, is an acclaimed playwright and composer. Her political satire revue Mrs. Foggybottom & Friends opened in Washington, D.C. in 1986, where it ran for ten years. Other recent musicals for adults include Flush! and Tussaud. She is the winner of the Washington Theatre Festival’s H.D. Lewis, Pat Sheehy, and Ensemble Awards. Cushing’s adaptations of seven popular children’s books as musicals have resulted in over two hundred productions and two national tours, and include Miss Nelson is Missing (performed by Oregon Children’s Theatre in January 2007), Petite Rouge (performed by OCT in April 2009), Junie B. Jones & a Little Monkey Business, Miss Nelson Has a Field Day, and Brave Irene. Her recent projects include a new musical, The Christmas Doll, Ramana’s Garden (based on the true stories of children in a Northern India orphanage), and Heidi: the Musical, commissioned by Imagination Stage. Ms. Cushing lives in Washington, D.C., with her husband and son.
Activities in this guide meet the following EDUCATIONAL STANDARDS:

- **Arts**: Create, Present, and Perform: Create, present and perform works of art
- **Arts**: Create, Present, and Perform: Apply the use of ideas, techniques and problem solving to the creative process and analyze the influence that choices have on the result of this process.
- **English**: Literature: Literary Text: Demonstrate General Understanding: Demonstrate general understanding of grade-level literary text
- **English**: Literature: Literary Text: Examine Content and Structure: Examine content and structure of grade-level literary text
- **English**: Writing: Writing Applications: Expository Writing (K-3)
- **English**: Writing Applications: Narrative Writing: Write narrative, expository, and persuasive texts
- **English**: Writing: Communicate supported ideas across the subject areas
- **Physical Education**: Expressive and Efficient Moving: Balance, demonstrating momentary stillness, in symmetrical and asymmetrical shapes on a variety of body parts
- **Physical Education**: Expressive and Efficient Moving: Demonstrate three different step patterns and combinations of movements into repeatable sequences
- **Science**: Interaction and Change: Describe the basic needs of living things
- **Science**: Interaction and Change: Living and non-living things change: Describe life cycles of living things
- **Science**: Interaction and Change: Living and non-living things interact: Describe the basic needs of living things
- **Science**: Interaction and Change: Living and non-living things interact with energy and forces: Compare and contrast the life cycles of plants and animals
- **Science**: Scientific Inquiry: Science explores the natural world using evidence from observations: Record observations with pictures, numbers or written statements
- **Science**: Structure and Function: Living and non-living things have characteristics and properties
- **Science**: Structure and Function: Living and non-living things vary throughout the natural world: Compare and contrast characteristics of plants and animals and the environments in which they live
- **Science**: Structure and Function: The natural world includes living and non-living things: Compare and contrast characteristics of living and non-living things
The Big Ideas

- Fantastical and complex worlds can be found right under your nose or in your own backyard.
- No matter how small or shy a person is, each individual has unique skills and talents.
- Writing can be many things: a way to communicate, a great creative outlet, a way to express your thoughts and feelings, and even a source of emotional support.
- Even though people are extremely different, they can live together as a community.
- Growing up and experiencing change can be scary, but it can also be fun and exciting.

Discussion and Writing Prompts

1. How do Fly, Worm, and Spider feel about their first day of school? How did you feel on your first day of school this year?
2. Are the insects and creatures in Diary of a Worm, a Spider and a Fly similar to the insects and creatures that live in your house or yard? What are some of the other kinds of bugs you’ve met before?
3. Have you ever kept a diary? Why? What kinds of things did you write or draw about?
4. Why do Mrs. McBee’s students learn how to scare people at school? Are you scared of insects? Why or why not?
5. How is Mrs. McBee’s class similar to your class? How is it different?
6. Why do the students have a safety drill? What kinds of things are they learning to keep themselves safe from? Do you have drills at school, and what happens during those drills?
7. Why does Worm not want to do his ‘All About Me’ report? What advice would you give him?
8. Why does Spider tell Fly that she can’t be a superhero? Do you agree or disagree with him?
9. Why is Fly so frustrated by her many siblings?
10. How are Spider, Worm, and Fly different from each other? How are they similar?
11. Which character in the play do you think is the most similar to you and your experiences? Why?
12. Choose one of the characters from the play and list the special skills and traits that make that character unique. What makes you unique?
13. Write about or draw how you think Worm feels at the beginning of the play and then at the end of the play. Does he feel different later? If so, what do you think makes his feelings change?
14. Why doesn’t Spider want to play in the dirt with Worm and Fly after he sheds his skin?
15. Write about or draw how Spider feels before he sheds his skin, and while he is shedding, and after he is done shedding. How has he changed?
AN INTRODUCTION TO INSECTS!

Target Grade Level: 1-3

STANDARDS

Science: Structure and Function: Living and non-living things have characteristics and properties

Science: Structure and Function: Living and non-living things vary throughout the natural world: Compare and contrast characteristics of plants and animals and the environments in which they live

Science: Interaction and Change: Describe the basic needs of living things

Science: Interaction and Change: Living and non-living things change: Describe life cycles of living things

Science: Interaction and Change: Living and non-living things interact with energy and forces: Compare and contrast the life cycles of plants and animals

Science: Scientific Inquiry: Science explores the natural world using evidence from observations

LESSON OVERVIEW

Diary of a Worm, a Spider and a Fly presents science learning opportunities that are a great addition to curriculum on insects and bugs, life cycles and metamorphosis, the food chain and needs of living things, and climate and migration (just to name a few connections). The introduction portion of this activity contains resources and ideas for an insect unit and an introduction to vocabulary and concepts introduced in the play. Part Two contains a range of short activity suggestions on a wide range of topics, suited for different grade levels, designed for teachers to pick and choose their own additions to their existing science lesson planning.

Length of Lesson (Varies)

LEARNING OBJECTIVES

- Introduce students to different species of insects, arachnids, and annelids in order to increase knowledge of the natural world and biological needs of living things.
- Increase familiarity with vocabulary and concepts used in Diary of a Worm, a Spider and a Fly, including insect terminology, life cycles and metamorphosis, the food chain and ecosystems, and migration.
- Increase students’ use of scientific and investigative skills, including observation, data collection and interpretation, and awareness of the world around them.

Materials – create your own “shopping list” based on this outline.

- Vocabulary and Concepts list
- Chart paper and markers, paper and pencil, creatures for study: worms, butterflies, flies, ants, spiders, etc.
- See http://insected.arizona.edu/ for detailed information on obtaining and caring for insects in your classroom.
ACTIVITY INSTRUCTIONS
INTRODUCTION
1. Ask students what kinds of things they would like to learn about different insects and use their answers to format different research questions. Record these questions on the board or where students can see them.

2. Create a chart on a large piece of paper with your students to serve as a resource both for seeing Diary of a Worm, a Spider and a Fly and for more in-depth insect study. Incorporate the research questions your class has brainstormed. Other possible questions/categories for the chart include:
   - What does this animal eat?
   - Where does it live?
   - Is it an insect, or something else?
   - How does this animal protect itself?
   - What eats this animal?
   - How does this animal help its environment?

3. Work with students to fill in answers to the chart. Depending on grade level, use one or more of the following approaches:
   a. Create or obtain insect information sheets (http://insected.arizona.edu is a great resource for facts and photos) and instruct students to read for information independently or in small groups.
   b. Work with students as a class to brainstorm prior knowledge about each insect and fill in knowledge gaps. Show students a photo of each insect or creature to brainstorm inferences or educated guesses for questions they might not know.

4. After the chart has been filled in, ask students to write a true sentence about each insect or creature using two or more boxes from the chart, or have students draw a picture that illustrates two or more facts about this animal.

5. Use the chart, students’ statements and artwork, and vocabulary from the play (see page 8 of this guide) to create a reference bulletin board.

6. If possible, keep worms, spiders, flies, butterflies, or caterpillars in the classroom for observation and study. Have students keep daily observation logs (using writing or illustrations, or a combination of both) about these creatures and what they notice.
CLASSROOM CONNECTIONS

LIFE CYCLES AND METAMORPHOSIS

1. Create a three-dimensional life cycle of a butterfly in your classroom. Create 3-5 work stations in a circle in your classroom — one for the egg stage, one for larvae, one for pupa, one for adult. Students move in small groups from station to station at teacher-determined times. If you like, emphasize the transition time from work station to work station by encouraging students to act out the transition (e.g., students move like eggs becoming larvae when moving to the respective station).

Possible Work Stations:

- Brainstorm a list of things a butterfly parent should think about when choosing where to lay eggs — location, shelter, predators, etc.
- Observe a caterpillar and record 3 things about provided categories — color, shape, texture, movement, etc.
- Write an acrostic using metamorphosis as the vertical word about the chrysalis phase — do you think the butterfly is bored?

2. Create a Venn diagram or chart (in pairs, as a class, or independently) comparing the life cycle of a spider with the life cycle of a butterfly. What is different? What is the same?

Food Chain/Needs of Living Things

1. Cross the Room: After learning about insects, their habitats, what they eat, and about their effects on the environment around them, have each student draw a nametag with the name of an insect or other creature. Wearing the name tags, have students form two lines facing each other. The teacher or leader calls out statements about the needs of living things.

2. Create food chain collages using photos of plants and animals from nature magazines. Encourage students to be creative, but emphasize that they should include plants, primary consumers, and secondary consumers. After students have created their collages, ask them to incorporate one or more different species of insects mentioned in Diary of a Worm, a Spider and a Fly.

3. Instruct students to draw a picture of a large predator and show something that could be found inside their stomach (i.e., what this predator eats). Then, have students show what is inside that animal’s stomach. Repeat the drawing process until students reach the bottom of the food chain.

4. Imagine a day without insects! With your students, brainstorm a list of ways that insects and worms impact the world around them — for example, do they control certain populations by eating them? What animals eat them for food? Do they impact the environment around them by helping with the decomposition process or by enriching the soil? Create a web to help students visualize this impact. Next, ask students to imagine that all these creatures (sometimes thought of as gross or as a nuisance) have disappeared. What would happen? Ask students to write (or draw) their predictions about what would happen to the earth.
Climate, Geography, and Migration

- Compare a species of spider that lives in the Pacific Northwest with one that lives in a different climate or biome, such as a desert or tropical rainforest. Discuss differences or similarities in appearance, defenses, habitat, prey, behavior, web building, etc. Incorporate any classroom work with map skills, climate comparisons, and any other relevant geography subjects. What might happen if the spider from a different climate decided to travel to the Portland area? Discuss possible consequences, both to the spider (they might not be able to find food, stay warm, etc.) and to the environment around them. Instruct students to draw a picture or write a short story either from the point of view of the spider or another animal in a Pacific Northwest ecosystem that describes some of these consequences.

- Migration pathways in the Pacific Northwest: Using Butterfly’s experience with migration to and from Mexico as an example, learn about local examples of migration with your students. What kinds of animals migrate? Do they all have wings, or are there some animals that migrate on land or by water? Where do these animals go? How far do they travel? Do they ever return to the Pacific Northwest after their journey? Creating a migration map with different colored threads for different animals or methods of migration.
Diary of a Worm, a Spider and a Fly
Student Questionnaire

NAME: ____________________________________________________________
GRADE: _________________________________________________________
TEACHER: _________________________________________________________

1. Which character did you think was the most fun and interesting? _______________

2. Can you remember all of the changes that this character endured? _______________
   Describe the changes. ___________________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________

3. Did the changes make you happy, sad, excited or frightened? _______________
   Why? __________________________________________________________
   _____________________________________________________________
   _____________________________________________________________
   _____________________________________________________________

4. What do the words on this list mean?
   Queen Ant _______________________________________________________
   Worker Ant _____________________________________________________
   Chrysalis _________________________________________________________
   Arachnid _________________________________________________________
   Larva __________________________________________________________
   Pupa ___________________________________________________________
   Pollinate _________________________________________________________
   Colony _________________________________________________________
   Metamorphosis ___________________________________________________
   Exoskeleton _____________________________________________________
Diary of a Worm, a Spider and a Fly
Teacher Evaluation

NAME: ____________________________________________________________
CONTENT AREA: ____________________________________________________
GRADE LEVEL: _______________________
SCHOOL: __________________________________________________________

1. What did you take away from the experience that directly improved your teaching effectiveness?
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

2. How could the matinee and/or study guide have been improved?
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

3. In your opinion, what could be done to more effectively address the core curriculum within the context of ABT education programming and/or ancillary professional development related to the education programming?
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________
   _________________________________________________________________

Please return this evaluation and your student questionnaires to:
Dr. William Mouat
Director of the ABT Department of Education and Community Outreach
P.O. Box 1556 • Billings, Montana 59103