Ozobot’s Fairytale

Lesson 1

Prepared for Ozobot
By Linda McClure

Essential question
How can we use programming in literature?

Overview
This lesson connects writing and programming. Students “act out” a fairytale using Ozobot as the main character. Part of the story will require programming the Ozobot to complete a task or engage in a behavior related to the story.

Suggested prerequisites
Knowledge of how to program Ozobot Bit using blocks from the Movement category. To practice, please complete the Shape Tracer games on games.ozoblockly.com.

Materials
• Ozobot Bit, one or more per group
• Copy(s) of a fairytale
• ozoblockly.com on a computer or tablet
• Handout: Fairytale Elements Template
• Handout: Ozobot’s Fairytale Sketch

Grouping
Whole class
Differentiation for older students: Independent, in groups of two or three

Age/Grade Level
Grade 2 and up

OzoBlockly programming topics
Movement, Logic and Loops
**OzoBlockly mode**
Use any mode

**Duration**
Guided Activity: 55 Minutes
Independent Activity: 55 Minutes
Can be extended to multiple class sessions

**Vocabulary**
*Ozobot Bit* - Little robot that can follow drawn lines and can be programmed using visual codes or through the OzoBlocky programming language
*OzoBlocky* - A visual editor which allows to create programs by plugging blocks together. The blocks can be used to control Ozobot’s behavior like movement, LED lights, etc.
*Rotate Right or Left* – 90° turn
*Rotate Slightly Right or Left* – Aprox. 45° turn
*Steps* – a unit of movement forward or backward
*Line Following* - Ozobot’s capability of sensing and following lines on paper or tablets
ACTIVITY

1. Introduction

Read one or more of these rare, not widely known fairytales with your students or pass out copies and have them read them independently or in groups.

- The White Snake
  [Link to The White Snake]
- The Devil with the Three Golden Hairs
  [Link to The Devil with the Three Golden Hairs]
- List of Fairytales
  [Link to List of Fairytales]

2. Guided Activity

**Discuss and Identify**

Pass out the “Fairytale Elements Template.” Discuss with the students what elements are found in all fairytales and identify those elements in the story you read (Opening, setting, character, problem/conflict, solution, conclusion). As you discuss the fairytale the class read, show the students how to fill out the template notating important parts of the story in the designated sections.

*Differentiation: With older students, pass out the template and have them work in groups to complete the task. Come back as a whole group and share and discuss.*

**Connect Ozobot to the Story**

To spark the students’ creativity and prepare them to create an “Ozobot Fairytale”, have them imagine their Ozobot as the main character. If the main character had been an Ozobot Bit, what type of behavior could it do if it was acting out the story? Two or more Ozobot Bits can be assigned different roles in the story. Have the class come up with different behaviors for each Ozobot character. Write these in the “Ozobot Behavior” box on the template.

Make sure the Ozobot Bit behavior is complex enough to demonstrate that programming Ozobot would be interesting and challenging. For example, Ozobot can dance, navigate
around obstacles, or try to evade a villain. In The Devil with Three Golden Hairs, Ozobot could take the “trip” to the Queen or even the journey of the box. In the White Snake, Ozobot can take the servant’s journey.

**Programming Preparation**
Pass out the “Ozobot’s Fairytale Sketch” handout. Guide the class to draw the Ozobot character’s movements. Incorporate turns, color changes, and other elements.

*Differentiation: Each group decides on Ozobot’s character and behavior. One student in the group records and draws instructions while the group discusses.*

**3. Independent Activity**

In pairs or groups, go to [ozoblockly.com](http://ozoblockly.com). Students program Ozobot to complete the behavior. Challenge students to make the program complex. Ozobot can move slow and fast. Ozobot can demonstrate fear, happiness, and curiosity using color and movement.

*Differentiation: younger students can use the Novice or Beginner mode. Older students or students with experience can use the Intermediate or Advanced mode of OzoBlockly and achieve more effects.*

**4. Extension**

Customize Ozobot Bit to reflect the character (using DIY skins) and/or create a setting for the fairytale with cardboard, colored paper, etc.

**5. Share**

We would love to see your student’s creations! Please share your documents, photos and videos with us for a chance to win cool prizes and be featured on our website. Contact us at ozoedu@ozobot.com.

**Next activity:**
Ozobot’s Fairytale Lesson II - Students write and program their own Ozobot Bit tale!
# FAIRYTALE ELEMENTS
## LESSON I TEMPLATE

**Title of Fairytale** ___________________________________

<table>
<thead>
<tr>
<th>Fairytale Elements</th>
<th>Ideas</th>
<th>Your Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Beginning/Opening</strong></td>
<td>Describe the opening. How did it grab your attention? What are the ‘traditional’ elements?</td>
<td></td>
</tr>
<tr>
<td><strong>Setting</strong></td>
<td>Where did the story take place? Be sure to add details!</td>
<td></td>
</tr>
<tr>
<td><strong>Characters</strong></td>
<td>Hero/heroin, Villain, Family</td>
<td></td>
</tr>
<tr>
<td><strong>Problem/Conflict</strong></td>
<td>All good fairytales have some sort of problem that needs to be solved. What was the conflict in this story?</td>
<td></td>
</tr>
<tr>
<td><strong>Ozobot Bit Movement/Behavior</strong></td>
<td>If your Ozobot Bit was the main character in this story, what activity or behavior could it do?</td>
<td></td>
</tr>
<tr>
<td><strong>Solution to Problem</strong></td>
<td>How was the conflict solved?</td>
<td></td>
</tr>
<tr>
<td><strong>Conclusion</strong></td>
<td>At the very end, what was the outcome? What traditional language was used?</td>
<td></td>
</tr>
</tbody>
</table>
Title of Fairytale  

Ozobot Bit Character Description  

Describe the behavior of Ozobot during your story  

In the box below (or on a blank sheet of paper if needed), sketch out the movements and behaviors you want your Ozobot Bit to complete. Be sure to include arrows to indicate the direction your Ozobot Bit is moving so you will be able to program your Ozobot Bit correctly.