

Garden: Scene 1 – In the Tree

“Fox! Glove!” yelled Melissa from amongst the tree leaves.

“Come down from there, and tell me what you are talking about!” said Melissa’s friend Katherine from her spot on the ground.

Melissa stuck her head out of the leaves screening her body from being seen from below. “I don’t know what happened to Sam. They said it had something to do with fox gloves.”

“Foxes don’t wear gloves.” said Katherine.

“I know that foxes don’t wear gloves. I said ‘foxglove’. Sam was taken to the emergency room because of ‘foxglove’,” said Melissa.

“Please come down and tell me what you are talking about,” said Katherine.

“All right.” said Melissa as she emerged from the magnolia leaves and started a quick descent down the tree trunk.

Garden : Scene 2 – On the Ground

“We were walking home from the video store. Sam said that he had visited his Aunt Louise over the weekend, and they had been talking about her work. She is a botanist, you know” said Melissa.

“She knows about all kinds of plants, from trees to weeds” continued Melissa. “She teaches college students about plants. Some of her students are planning to be teachers like Ms. Brown.” Ms. Brown had been the kids’ 6th grade science teacher.

“I have heard Sam mention his Aunt Louise before. I think that he would like to be a scientist like she is” said Katherine.

“She was telling him about some of the plants in her flower garden. She talked about Lily of the Valley and how people have had different uses for different plants at various times in history. Plants are a good source of medicines.” said Melissa. “Apparently, Sam decided to conduct a science experiment.”

Garden : Scene 3 – Later, at the hospital

Katherine and Melissa walked quietly down the corridor of the hospital, glancing into different rooms as they went. Although they knew which room number they were looking for, they were curious about why all the kids that they glimpsed as they walked were here. They felt intimidated by the equipment and the different people that they saw walking purposefully down the hallways. Finally, they found Sam's room and walked timidly in. Sam's eyes were closed, but opened sleepily as Katherine and Melissa entered the room.

"Hey," said Katherine. "What's up?"

"A science experiment gone way wrong." said Sam. "Won't ever happen again."

"What happened?" asked Melissa.

"It's a long story." said Sam. "The short version is that I was trying to make medicine the way a medieval medicine man or woman would have. I decided to try some myself. What a mistake."

"What were you trying to make?" asked Melissa.

"Well, my Aunt Louise told me that people in historical times would take plants from their gardens and use different parts like the seeds, leaves, stems, or flowers to make concoctions and drink it to make them feel better. I picked some flowers and leaves from my Mom's garden and mashed them up and boiled them. They turned a pretty purplish color. I thought I would take a tiny taste to see if they tasted grape flavored because they were purple. The next thing I knew I started sweating and breathing hard and I felt like my heart was pounding. I ran next door to my Uncle Bo's house, and he called 911. When the ambulance came, they grabbed a handful of the leaves that I had cut up and boiled and brought them with us to the emergency room. After they gave me something to make me throw up, they called a botanist at the CDC to help identify the plant that I had used to make my "tea". It was called foxglove."

Garden : Scene 4 – Still later, at the hospital

Sam's Mom walked in with his Aunt Louise.

“Sam, Sam, I was so worried.” cried Aunt Louise. “I am afraid that I am the cause of your being ill.”

“No, Aunt Louise. It was a stupid mistake on my part. I have certainly learned better than to ever eat or drink anything that is part of one of my science experiments,” said Sam.

“You have learned an important lesson the hard way. Don't ever touch or taste a plant that you are not familiar with. The consequences can be disastrous.” said Aunt Louise.

Garden : Scene 5 – A week later

“I talked to Aunt Louise today,” said Sam to Melissa and Katherine as they were walking to the local public pool. “I told her that I would like to do a project that would help other kids to not make the same mistake that I did with the poisonous plant. She said that she would be happy to talk to Mr. McGee (who would be the kids’ 7th grade science teacher next year) about coming to talk to the class about plants.

“You are a living testimony to the importance of knowing about plants!” said Melissa.

Garden: Assignment

Design a medicinal plant garden for your school. Make a list of plants with medicinal uses that will grow in your area. Investigate the growth habits of each plant. Do they need sun, part sun, shade? How tall do they get? How much space does each individual plant need? Will the plant live year after year (a perennial) or will it need to be replanted every year or every two years (an annual or a biennial)?

Investigate principals of garden design. How are plants placed in a landscape plan based on size, color, texture, growth habits? Decide within your group on a geometric design that appeals to you. For example, one type of geometric design that you could decide upon would be a mandala. Another type of geometric design would be a knot design.

Measure our outdoor space and determine how much space your design will be able to occupy. Make a scale drawing of the space and make a key showing where each plant in your plan will be located. You will need to have at least 10 different plants in your design.

Make a table with the following information about each of your plants.

- common name
- scientific name
- is the plant a perennial, an annual, or a biennial?
- location in the garden design
- calculate the circular area that the mature plant will occupy in the garden design (make sure that the circular areas of each plant will fill in the geometric design that you have chosen and show those calculations)
- tell why each plant was located in each position (color, texture, height?) in the design
- list the medicinal uses of the plant
- tell which parts of the plant are used medicinally
- tell how the medicine is obtained from the plant
- tell which culture or geographic location used or discovered the use of the plant as a medicine

Garden: Box Chart

<p><u>Facts</u> (What we know right now)</p>	<p><u>Questions</u> (Based on current knowledge)</p>
<p><u>Hypotheses</u> (Based on facts and questions)</p>	<p><u>Learning Issues</u> (What we need to learn)</p>

Self/Group Evaluation

Date _____

Your Name: _____ Group # _____

Instructions: Please circle the response with which you agree the most. This evaluation will only be read by your teacher and will **not** be shown to other students.

1. How would you rate your participation in group discussion and group work?

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

2. How would you rate your effort in completing the case:

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

3. Did you complete the assigned homework? **Yes** **No**

If no, explain why:

4. How well did you work with everyone in your group:

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

5. Overall, how would you rate your performance in this case?

5 Excellent 4 Very Good 3 Good 2 Fair 1 Poor

6. Your total score _____

7. Rate each group member on a scale of 1-5

Group Member	Participation in group discussion	Completed Assigned Task	Worked well within group	Overall performance	Total Score