

The Mangrove Tree

RIF EXTENSION ACTIVITIES FOR EDUCATORS

STEAM-THEMED: SCIENCE, TECHNOLOGY, ENGINEERING, ART, MATH

SCIENCE, MATH, LITERACY SALT WATER SCIENCE

Materials per group: 2 clear plastic cups, marker, 2 carrots, water, 1 tsp. salt, ruler, scale, pencil, observation chart (see attached)

Day 1: Each group should label their cups “fresh water” and “salt water.” Fill each cup with one cup of water. Add one tsp. of salt to “salt water” cup and stir gently until dissolved. Have students measure the width, length, and weight of each carrot. Observe texture, firmness, and color. Record data on attached chart. Place one carrot in each cup. Have each group hypothesize what will happen to the carrots.

Day 2: Remove both carrots from water and repeat the measuring and observation steps from Day 1.

Do the carrots look the same? Has the texture changed? Has the color changed? Do you see any other changes? If so, what? Was your hypothesis correct? Why do you think the salt water carrot changed? How did this experiment help you understand the problem in the story?

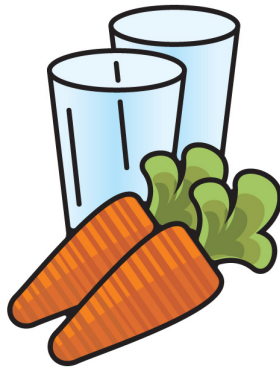
TECHNOLOGY, LITERACY CLICK TO CARE

Go to www.themanzanarproject.com/videos.html and watch the first video to see the Manzanar project in action.

Visit www.freerice.com and register your class to help feed the hungry by answering vocabulary questions. Each correct answer is worth ten grains of rice.

ENGINEERING, ART, MATH, WRITING CREATE A COMMUNITY HELPER

Challenge: Design a machine that could help make a difference in a community. Include a design plan, details about the machine’s function, why it is needed, and how it will operate. Students should also include what inspired the idea. Let students work alone or in small groups or pairs. Be sure they give their machine a name!



ART ART FOR CHANGE

Materials: scrap paper, cardboard, packing materials, glue, paper

Revisit the illustrations in the story. Let students study the illustrator’s technique of using paper to create scenery, animals, and people. Collect different types of scrap paper, cardboard, and packing material. Have students create their own pictures by gluing the paper scraps and cardboard onto thick paper. Display the pictures as an art exhibit. Invite parents, friends, and PTA members to visit the exhibit. Ask that each visitor bring a can of food to be donated to the local food bank.



MATH COUPONS FOR COMMUNITIES

Your class can help the community by collecting coupons. Have students practice math concepts by: adding up the coupon values for like products, matching coins to coupons (e.g., this coupon is worth 3 dimes and 1 nickel), or calculating savings by using a grocery store flyer to subtract the coupon from an item’s original price. Once coupons have been

collected and used for math, donate them to your local food bank.



OBSERVATION CHART FOR SALT WATER SCIENCE

	Carrot 1 (Fresh Water)		Carrot 2 (Salt Water)	
Length	Day 1	Day 2	Day 1	Day 2
Width	Day 1	Day 2	Day 1	Day 2
Weight	Day 1	Day 2	Day 1	Day 2
Texture	Day 1	Day 2	Day 1	Day 2
Color	Day 1	Day 2	Day 1	Day 2
Firmness	Day 1	Day 2	Day 1	Day 2
Additional Observations				
Draw a before/after picture for each carrot.	Day 1	Day 2	Day 1	Day 2