Arizona Grown Specialty Crop Lesson Plan

Watermelon Fun

LEVEL: Grades K-2
SUBJECTS: Science and Math
AZ ACADEMIC STANDARDS: 1.OA.B.3, 1.OA.C.5, 1.OA.C.6, 1.NBT.A.1, 1.MD.A.1, SC01-S1C2-01, SC01-S1C3-01, SC01-S5C1-01, I.MP.5, SC01-S1C3-02, SC01-S1C2-03, SC01-S1C2-04, SC01-S1C1-01, 2.OA.A.1, 2.OA.C.3, 2.NBT.B.3, 2.MD.A.2, 2.MD.A.3, 2.MD.A.1, 2.SL.3, 2.MD.A.4, SC02-S1C2-03, SC02-S1C1-03, SC02-S1C3-03, SC02-S1C2-04, SC03-S4C1-01, SC03-S4C2-01

MATERIALS

1. Book: No Spitting Watermelon Seeds by Martha Rose Woodward or another non-fiction book that walks students through the life cycle of a watermelon using correct vocabulary and pictures
2. Watermelons
3. Watermelon Fun recording sheet
4. scale (in pounds)
5. bucket filled with water (large enough to place watermelon in unobstructed)
6. flexible tape measures or long piece of yarn that can be used to measure circumference and then measured itself along ruler
7. large knife for watermelon carving
8. plates

VOCABULARY

Watermelon, vince, blossom, seed, rind, flesh, float, sink, inch, pound, circumference, buoyancy

SUPPORTING INFORMATION

There are many varieties of watermelon that grow here in the state of Arizona. Watermelon grows very well in the extreme heat of our deserts. Most watermelons have the distinctive dark green outer rind with a pale green or whitish rind inside and a beautiful red edible flesh. But there are some fun, unique watermelons that you might want to share pictures of with your students including Moon and Stars and Yellow Doll, just to name a couple. Another important fact is that not all watermelons have seeds. Some watermelons today have been bred to be seedless. For this lesson, make sure to purchase traditional watermelons with seeds, otherwise you'll have some disappointed students when it comes time for the seed spitting contest!

Moon and Stars Watermelon

Yellow Dot Watermelon

GETTING STARTED

1. This activity can be done with one watermelon for the whole class but is not as fun. It would be ideal to break your students up into groups of 4-6 and have one watermelon per group, if you are able.

BRIEF DESCRIPTION

After reading about watermelons, students will perform investigations recording their predictions and test results for various math and science based activities.

OBJECTIVES

- Students will be able to make predictions regarding buoyancy (float/sink), weight, circumference, and seed spit distance for their watermelons.
- With assistance, students will perform investigations and record actual results for all tests listed above.

ESTIMATED TEACHING TIME

60 minute class period

2. Make sure to purchase watermelons with seeds.
3. Have Watermelon Fun!!! recording sheet copied (one per student).
4. Have a bucket pre-filled with water that the students can test the buoyancy of their watermelon in.
5. Have a scale ready for watermelon weigh-ins.
6. Have a tape measure available for each group to measure the circumference of their watermelon.
7. Depending on age and skill level of your students, you might consider recruiting parents or an older buddy class to help with this activity in "stations" or "centers".
8. For seed spitting competition, (recommended outside) set up a start line that students will stand behind and have a tape measure available for them to use to measure the distance the seed travels.

PROCEDURES

1. Gather students around and ask them if they can think of a fruit that grows in the summer time they can eat to help them cool off. Give clues such as: it's green and red, it can have seeds, it grows on a vine, it starts with a 'w'… etc.
2. Once they guess watermelon, bring out one of the watermelons. Ask students who's ever seen a watermelon before, who's ever tasted a watermelon before, maybe who's even grown a watermelon before?
3. Read No Spitting Watermelon Seeds or another non-fiction book that describes the life cycle of a watermelon.
4. Then, share with students that today they are going to do all sorts of experiments with their watermelons with an exciting grand finale.
5. Pass out the Watermelon Fun recording sheet and have the students follow along as you explain each of the experiments.
6. Depending on age and skill level, you may have to set this up as stations with adult helpers (or an older buddy class), as a whole group activity, or by having students complete independently with you as the facilitator.
7. Complete the float/sink, weight, and measurement components.
8. Gather the students together and have them share one group at a time their findings and perhaps why the results were different for each group. Also, talk about why the watermelon floats. (Teacher note: watermelons float because they are less dense than water. But also because the inside of a watermelon isn't hollow but it does have a lot of air inside.)
9. While the kids are sharing , cut up watermelon for the students to eat. (This would be an excellent parent helper job.)
10. Even if they don't like watermelon have them take 2-3 seeds each.
11. Take the students outside for a watermelon eating party and have them save 2-3 seeds (however many "tries" you'd like to give them).
12. Have students take turns seeing how far they can spit their seeds and measure the distance. They can do 2-3 and take the best score. Have them record their distance on their recording sheet.
13. Crown a Seed Spit Champion!
14. Gather the students back around to share their ideas on how they could have gotten their seed to go further, who liked/disliked the watermelon, and something new that they learned about watermelons today.

EVALUATION OPTIONS

1. Have students circle/write their experiment predictions with marker so they are not able to change them later to be "right". Make sure to stress that scientists are usually wrong with their initial predictions but they use what they learn to make better predictions the next time. After test results are recorded, teachers can use student predictions as an informal estimation assessment.

EXTENSIONS AND VARIATIONS

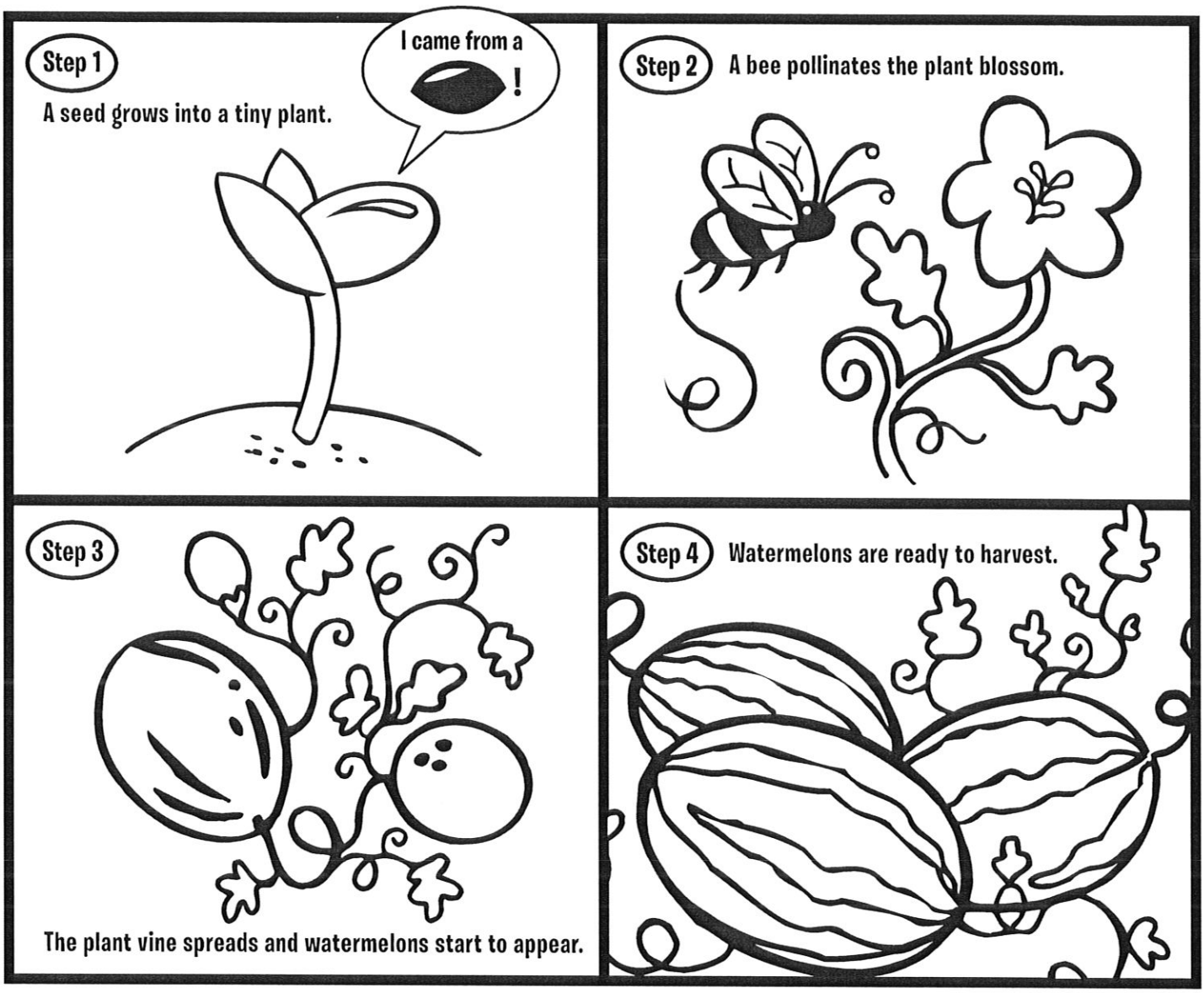
- Complete the "How to Grow a Watermelon" activity page with your students. Compliments of www.watermelon.org
- Taste testing with different varieties of watermelon.
- Taste watermelon flavored candy vs. real watermelon to compare/contrast.
- Make Watermelon Moon Sand with your students… fun to stamp out spelling words in. Link here: http://www.growingajeweledrose.com/2014/05/watermelon-moon-sand-recipe.html?m=1

- Visit www.watermelon.org for LOTS of freebies including stickers, recipe cards, brochures, posters, activities, and lessons. They have a fantastic Educator section.

Resources

- Peter Spit a Seed at Sue by Jackie French Coller
- One Watermelon Seed by Celia Barker Lottridge
  The Watermelon Seed by Greg Pizzoli

CURRICULUM DESIGN
Jennifer Smith
1st Grade Teacher
Eduprize
Queen Creek, AZ



How to Grow a Watermelon

You can plant your watermelon seeds right from your next watermelon slice!

Supplies you will need:

- Watermelon Seeds (about 10-15)
- Planting pot or a sunny place outside to plant your seeds
- Dirt (enough to fill the pot)
- Water
- Sunshine

If using a planting pot, place your dirt inside planting pot. Place your seeds about 1 inch deep into the dirt. Water immediately after planting.

Water once a week and continue to weed out (remove) the weakest plants and any weeds that may grow close to your seeds. You should begin to see plants in about 10 days.

Keep in mind that to grow a watermelon takes extra special care. While you may not grow a watermelon, you should begin to grow the vine. If you do grow a watermelon, it may not taste as good as those you buy at the grocery store because watermelon growers have years of experience growing great tasting watermelons.

watermelon.org
National Watermelon Promotion Board

Watermelon Fun!!!

Melon expert: _____

Do you think your watermelon will sink or float?

Prediction:

sink float

Test-Result:

sink float

Were you correct?

yes no

I predict my watermelon will be ____ inches around.

We measured my watermelon and it was actually ____ inches around!

Was your guess…

too high
too low
pretty close

I predict my watermelon will weigh ____ pounds.

We weighed my watermelon and it was actually ____ pounds!

Was your guess…

too high
too low
pretty close

I predict I can spit my watermelon seed ____ inches.

I actually spit my seed ____ inches!!!