

D is for Donut

A Quality Control Experiment for K-2

Overview

Primary learners will experience a "taste" of the manufacturing world by creating, filling, and packaging their own playdough donut orders. They will also gain insight and inspiration for their own creations, from the manufacturing processes of NB's own donut experts, Mrs. Dunster's.

NB Curricular Connections

K-2 Learning Areas

English Language Arts:

 Strand: Reading - Big Idea: Reading Comprehension – Skill Descriptor: Construct meaning from oral stories, read-alouds, and text.

Mathematics:

o Strand: Number - Big Idea: Number Sense

Explore Your World:

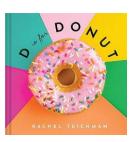
- O *Strand:* Playfulness *Big Idea:* Imagination and Creativity *Skill Descriptors:* Examine new activities, interests, and possibilities.
- O Strand: Playfulness Big Idea: Exploration and Problem Solving Skill Descriptors: Invent approaches to practical problems.

What You'll Need

- Book D is for Donuts (by: Rachel Tiechman)
- PowerPoint Presentation D is for Donuts (see attached)
- Chart paper & marker
- Playdough (2-3 containers per group)
- Brown paper bags (20)
- Assorted playdough tools: cutters, rollers, cookie cutters, etc.
- Donut Order printable cards (see below)
- Placemats (Optional)

Instructions

1. Read Aloud – D is for Donuts: Before reading, ask: "What is your favorite donut?" and allow learners to share. Write down their responses on chart paper. During reading, encourage learners to read the alphabet letters with you on each page. After reading, have learners think about their favorite donut mentioned in the story and describe it to an elbow partner.



2. <u>Donut Order #1:</u> Divide learners into small groups of 3-4. Begin with, "Ordinarily, this is our classroom. Right now, however, it is going to transform into a Donut Factory. We are now "manufacturers" of donuts. What would that term mean – manufacturer?" Use slide 2 of the PPT and allow learners to share their thinking.

A **manufacturer** is a person or company that creates lots of goods, by hand or by machine, to sell. (Miriam-Webster, 2024.)

Instruct: We are going to create, with our hands, donuts for customers wanting to buy our delicious recipe. I am going to give each group a couple of containers of playdough, a donut order, and a brown paper bag. You are to read your donut order, make the donuts, and then bag them for your customer to pick-up. Each donut order tells how many donuts the customer wants. After the supplies and orders have been handed out, get groups to start making and bagging their order.

Once groups have completed their orders, have groups switch their bags with a group to do a quick check – do they have the right number of donuts, do they have the right kinds? Return the brown paper bags and have learners consider: Let's think about the size and shapes of our donuts, what do you notice about the donuts that we made? When we buy donuts from a real-life manufacturer, what is the size and shape like?

- 3. Mrs. Dunster's Manufacturing Process: Using slides 3-8 of the PPT, take a little tour through New Brunswick's own donut manufacturing experts, Mrs. Dunster's, and see how they create, package, and fill orders of thousands and thousands of donuts each day. Invite learners to point out tools, machines, and processes that allow Mrs. Dunster's to provide excellent donuts. Using slide 9, ask learners: How many different people does it take to make tasty and delicious donuts at Mrs. Dunster's? (Have learners list the different tasks and jobs that they noticed throughout the process. Also have learners think about even more people that we didn't see but are just as important janitorial and maintenance crew, managers, graphic designers, accountants, etc.)
- 4. <u>Donut Order #2:</u> Have learners re-use the same playdough BUT this time adding two elements when creating and filling their donut orders:
 - playdough tools (for accurate measuring and size)
 - dividing up tasks (who will roll out, who will cookie cutter, who will decorate, and who will inspect then bag)

Pass out NEW donut order cards (see below), brown paper bags, and playdough tools. After the orders are complete, switch bags with a group to ensure the correct quantity

- and quality. Feel free to repeat if time permits, exchanging donut orders, so learners can experience different tasks.
- 5. Wrap-Up & Discussion: Ask learners: Does Quality Control matter? What is different about the donuts we created with Donut Order #1 and Donut Order #2? (Possible responses: the 2nd order: same size, better quality, faster time, better product, etc.) How did it feel to be a manufacturer? What did you learn from today's quality control experiment?

Extension Ideas

- Using the playdough donuts, review 2D shapes and 3D objects. What different shapes are donuts? Can you come up with a brand-NEW donut shape? Create a donut shape museum and invite another class to examine the playdough donuts that you created.
- Donut Factory Center keep the donut creation going! Place the playdough and tools in a center and allow learners to create and re-create orders.
- O Donut Art Have learners choose their favorite donut and paint it, using the same background as the cover for D is for Donuts. Display on a bulletin board.
- Have a donut-making PARTY: Try one of the donut recipes in the back of the book.
 Divide up tasks, like real manufacturers! Surprise some "school customers" with a tasty treat and a kind note of appreciation.
- Reach out to a local baker for a tour observe how they handle large orders firsthand!
- Purchase a bag or box of donuts have learners do a full quality control inspection.
 What do we notice? Are they the same size, shape, quality? (Be sure to taste for quality, too!)

Reflection Activity

Please see the attached PDF for several choices on how you and your learners can reflect upon today's activity.

Acknowledgements

1. Miriam-Webster, Manufacturer definition: https://www.merriam-webster.com/dictionary/manufacture, 2024.

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Donut Order #1



Cut out orders and give one per small group to create, inspect, and bag.

Donut Order #1

5 five











Rainbow Sprinkled Donuts

Donut Order #1

4 four





Sugar Donuts

Donut Order #1

3 three







Boston Cream Donuts

Donut Order #1

5 five











Rainbow Sprinkled
Donuts

Donut Order #1

4 four





Chocolate Crunch Donuts

(crunch = chocolate cookie crumbs, cinnamon, and coconut)

Donut Order #1

4 four



Koko Nuggets

(chocolate donut holes coated in powdered sugar and coconut)

Donut Order #2



(crunch = chocolate cookie crumbs,

cinnamon, and coconut)

Cut out orders and give one per small group to create, inspect, and bag.



(chocolate donut holes coated in

powdered sugar and coconut)