Make and Bake a Hand Stretched Neapolitan Pizza

Description
In this activity, students will make and bake Neapolitan-style pizza from scratch. The students will identify the different stages of the process. They will read a traditional pizza recipe; formulate the recipe to the correct yield; gather ingredients and tools; measure ingredients accurately; mix; make-up; and bake the product.

Students will also study the traditions and history behind the product (optional).

Lesson Objectives
Students will be able to:

• understand ingredients and their functions in the making and baking of pizza
• calculate the amount of ingredients needed to produce the desired amount of product
• prepare and bake pizza using safe food handling practices with appropriate equipment, according to recipe or formula
• apply knowledge of mixing methods to produce a yeast-leavened dough
• evaluate the finished product, and
• learn the history and traditions around the product.

Safety Considerations
Basic food and kitchen safety

Assumptions
Students understand ingredient measurement, food handling safety, and appropriate clothing and personal attire in kitchens.

Terminology

Baking sheet: A tray/pan of specific size with shallow sides used for baked goods that do not need shape support.

Bench/counter: A workspace of appropriate height and material for processing recipes.

Extra virgin olive oil: Oil from the olive fruit that is processed without chemicals or heavy machinery.

Formula: A balanced recipe containing the list and weights of ingredients, procedure, and yield.

Hearth: The floor of a traditional oven, also known as the “sole.” Baking can be done directly on the hearth.
Margherita/marinara: Two traditional styles of basic pizza.

Mother dough/sourdough starter/levain (fr): A mixture of flour and water that has active fermentation and is used to develop fermentation and leavening in a dough.

Neapolitan: A word describing anything that comes from (or is made in the style of) Naples, Italy.

Parchment paper: A sheet of paper with non-stick qualities and heat stability used to line a baking sheet in preparation for baking.

Peel: A flat tool with a handle used to slide a pizza (or other bakery product) onto the hearth of the oven.

Pizza: A flatbread topped with various toppings.

Pizza stone: A flat stone that is pre-heated in a conventional oven to simulate a “hearth oven.”

Pizza wheel: A circular knife used to cut a baked pizza.

Rolling pin: A cylindrical tool, sometimes with handles on bearings and sometimes in one piece used for flattening a piece of dough.

Yeasted dough: Any dough that is risen with the addition of natural or commercial yeast.

Yield: The amount of product produced from a specific recipe or formula.

Estimated Time
45–60 minutes:
Day 1: Preparation of dough to allow to rise overnight.
Day 2: Activity

Recommended Number of Students
This activity should be done in pairs.

Facilities
• Home Economics lab or cafeteria kitchen
• Internet-accessible computer, projector, and screen

Resources
Neapolitan Pizza Margherita – Wood Fired Pizza
https://www.youtube.com/watch?v=FHVZgt3ExDI

Materials
• As per recipe—enough ingredients for all students
• Digital scales (or volume measuring equipment)
• Sheet pans for all students
• Pizza stone (or use the back of a sheet pan)
Demonstrating Skills And Knowledge

Procedure

Day 1
1. Watch video on pizza making.
2. Divide students into pairs.
3. Follow the procedure as per the recipe. (If a sour dough or “mother dough” isn’t available, follow the recipe directions using straight yeast only.) Have the students scale the recipe to make two pizzas weighing 125g each.
4. Explain and explore the measuring of ingredients. If a scale is not available, have the students perform the calculations to convert from grams to volume measurement (cups and spoons).
5. Mix the dough by hand.
6. Explain why the dough has to rest.
7. During proofing, explain the organic leavening process.
8. Cut, round, and rest dough overnight in the correct weight, covered.

Day 2
1. Turn ovens to 230°C (450°F).
2. Place pizza stone or upturned cookie sheet in oven.
3. Stretch pizza to desired width and rest on parchment paper or an upturned well-floured cookie sheet.
4. Top with appropriate ingredients. Emphasize the principle of “less is more.”
5. Slide pizza using a peel or the underside of a cookie sheet onto the pizza stone or heated cookie sheet.
6. Bake for approximately 8–10 minutes.
7. Slice, taste in guided ways, and evaluate.

Topics for Research/Discussion (Optional)

• What is the history of pizza?
• What are the two main ingredients for a Margherita or a Marinara pizza?
• What is the connection between Italian pizza making and Canada?
• Who invented the “Hawaiian” (ham and pineapple) pizza?
• When did the pizza become popular in North America and why?
• Are there songs about pizza?
• Which song about pizza won the academy award for Best Original Song?
• What are the differences in the authentic Neapolitan recipe and what we expect at a North American pizza franchise?
**Evaluation Guidelines**

Consider co-creating the assessment criteria with your students at the beginning of the activity/project. You may want to include the following:

<table>
<thead>
<tr>
<th></th>
<th>Emerging</th>
<th>Developing</th>
<th>Proficient</th>
<th>Extending</th>
</tr>
</thead>
<tbody>
<tr>
<td>Performs professionally in the kitchen following health and safety guidelines.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Applies mathematical principles to appropriately scale recipe to desired yield.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Measures ingredients accurately.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mixes, proofs, cuts, rounds, and covers dough.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stretches and pans pizza; tops with appropriate ingredients.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sets oven temperature and correctly assesses when product is baked.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cools and stores product properly.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluates pizza for quality, taste, and texture in the form of self-reflection notes.</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Pizza Evaluation Chart

**Type of Pizza:**

**Made By:** ___________________________  **Date:** ___________________________

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Excellent</th>
<th>Average</th>
<th>Needs Work</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overall appearance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Quantity of ingredients</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Crust shape, thickness, and stretching</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Baked consistently</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Well-balanced taste</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Basic Pizza Dough

Yield
360 g (3 small or 2 large pizzas)

Ingredients
200 g all purpose flour
20 g mother dough*
144 g water
4 g salt
1.5 g yeast
toppings

*Mother dough or sour dough starter is traditionally used. If not available, increase flour and water by 10 g each.

Preparation
1. The original calls for Tipo 00 flour. This is available in specialty food shops. Alternatively use untreated all-purpose flour.
2. Watch the students as they hand stretch the pizza. Be careful not to make the centre too thin otherwise the pizza will tear and stick.
3. Make sure they do not overload the pizza with ingredients.
4. As you probably will be using a domestic oven or maybe a convection oven there are a few tricks to mimic the wood-fired hearth oven.
5. Heat the oven before baking and leave the pizza stone or an upturned cookie sheet on the middle shelf.
6. Make sure that there is enough flour to allow the pizza to slide off, or use parchment paper.
7. Wait five minutes before cutting and eating.