Spice It Up with Food Science

Presented by:

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Employability Skills Developed

Your FCS classroom is helping to prepare the workforce of tomorrow.
How Spicy Are You?
World of Spices
Herbs and Spices of the World

https://www.agclassroom.org/matrix/lesson/114/
Spice Profiles

Sweet warming phenols - cinnamon, clove, anise, vanilla
Warming phenols - nutmeg, caraway, dill, annatto
Fragrant terpenes - juniper, rose, coriander,
Earthy terpenes - cumin, nigella
Penetrating terpenes - cardamom, bay,
Citrus terpenes - dried lime, lemongrass
Sweet-sour acids - sumac, tamarind
Fruity aldehydes - barberry, cacao
Toasty pyrazines - paprika, sesame
Sulfurous compounds - garlic, curry leaf, mustard
Pungent compounds - black pepper, ginger, chili
Unique compounds - saffron, poppy, turmeric
Spices 101

SPICE 101
WITH ALTON
How do you store dried herbs and spices?
You store dried herbs in a dark, dry place in a glass bottle. Do NOT put them near heat or light, such as over a stove.
What is an herb/spice blend?

An herb blend is a combination of several different herbs that complement each other to create a new taste.

Examples of herb blends are:

- Taco seasoning
- Italian seasoning
Mix It Up

Weights and measures
Ratio of ingredients
Sensory evaluation

https://cdn.agclassroom.org/media/uploads/lp114/spice_rack2.jpg

https://www.amazon.com/Spice-Mixes-Spices-Seasoning-Cookbook-ebook/dp/B00VIWKRRK/ref=sr_1_5?keywords=spice+mixes&qid=1637183558&s=books&sr=1-5
Sensory Vocabulary
Lab: Chai Tea!

https://insanelygoodrecipes.com/starbucks-chai-tea-latte/
the science chef
100 fun
food experiments and recipes for kids

Joan D'Amico, Ed.D. and Karen Drummond, Ed.D.
How Does Food Cook?

Heat transfer - potatoes

- baked potato topped with chive, dill, etc.
- potato skins with salsa, cilantro, parsley
- potato salad with mustard, dill, parsley, paprika

https://www.loveandlemons.com/baked-potato/
Why Does Popcorn Pop? (scientific method)

Cheddar Cheese and Chive Popcorn
Popcorn Santa Fe - cumin, chili powder

https://www.simplyrecipes.com/recipes/perfect_popcorn/
Grow Your Own Herbs

https://www.realityworks.com/hydroponics-educational-systems/
What other topics could be incorporated?

Sauces
Biscuits
Breads
Eggs
Salad Dressings
Fermentation
Dehydration
Sift Food Labels: Scanner
Know What's In Your Food
Sift Food Labels
Designed for iPhone

Take the guess work out of food labels.

Scan the barcode of any food product.

Sift translates the ingredients.

Ingredients banned in other countries are flagged.

Sift Food Labels breaks down complicated ingredient labels so you know what's in your food. Simply scan the barcode of any food product and Sift will translate the ingredients into easy-to-understand terms - flagging ingredients that are banned in other countries. All for FREE!

Sift offers support for ingredient based elimination diets - Gluten Free, Dairy Free, Low FODMAP, Pale...
K-12 Teaching Resources

Feeding Tomorrow, IFT's Foundation, is committed to encouraging young minds to pursue careers in the science of food. To meet the challenges ahead of us, the world needs the brightest minds engaged in the science of food in order to feed a projected population of 9 billion by 2050.

NEW! Explore a virtual experience “From Milk to Ice Cream and the (Food) Science behind It” by taking a journey through real facilities of ice cream production.

Watch video

Classroom Resources and Lessons

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Science of Thanksgiving

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