Tools from NMSU’s Media Productions

Learning Games Lab

Animations • Video • Games • Apps • Virtual Labs

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Games
maths-snacks.org
Impact of *Math Snacks* Games on Math Test Performance of 5th Graders

*n=741 students in fifth grade*

Math Snacks introduced to Group A after Test 1
Impact of *Math Snacks* Games on Math Test Performance of 5th Graders

*n=741 students in fifth grade*
one great idea
myth of educational design

start with an IDEA

for a great game.

(or something that really needs to be taught.)
start with a process with clear outcomes.
What change do I want to see in the learner?
What change do I want to see in the learner?

What activities lead to that change?
What change do I want to see in the learner?

What activities lead to that change?

How can gameplay facilitate those activities?
What change do I want to see in the learner?

What activities lead to that change?

How can gameplay encourage those activities?
What do we want the learner to be able to do?

- Inquiry-based learning
- Gamification
- Have them do it & reward them
- Create an environment where they reveal how to do it themselves
answering questions may yield success in answering questions

but does it transform the learner?
Earnings: $574

- $0.00985
- $9.85 \times 10^3$
- $98.5$
- $9.85 \times 10^1$
- $9,850$
- $9.85 \times 10^{-3}$

Match up the clouds correctly.
Guiding Questions

• If the learner doesn’t know this coming into the game, will she learn it through game play?
• Will this lead to the desired outcome?
• Is it fun enough to sustain engagement?
• Are we maximizing this game’s potential?
Important Elements:

- Quality Advisory Committee
- User testing
- Teacher Training Camps
Mobile Apps
Eat & Move

About

Español

Play

Ready to make healthier choices about eating & moving?

Eat & Move o-matic

Candy Bar

Full Size Candy Bar
Instead of eating a full size candy bar, share with a friend or pick a mini bar.

Fast Biking

More pedaling and less cruising is considered fast biking.

1 Burger, 12 oz. Soda

Calories

134

IN

OUT 134

Time Span

1 hr 45 min
Subject Data

Student Survey_LK

Questionnaires

4-H Common Measures_LK
ASSQ: Exercise Questions_LK
ASSQ: How Likely Are You... Questions_LK
ASSQ: Nutrition Labels and Food Questions_LK
ASSQ: TV Watching and Video Game Questions_LK
ASSQ: What You Ate Yesterday_LK
Global Self Worth_LK

Endurance / Performance

PACER Individual Score Sheet

4-H Common Measures

Please tell us about your experience with 4-H CT FANs IM Program. This survey is not a test. There are no wrong or right answers. Your answers are private. If you do not want to do the survey, you do not need to. However, we hope you will because your answers are important. Your answers will not affect your participation in the program.

Please be honest as you can.
Thank you for your help!

Language/Idioma

- English
- Español

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We would like to know what you learned or now do differently since you have been in 4-H CT FANs IM program? How much do you agree or disagree with each statement?
Choose “SA” if you strongly agree. Choose “A” if you agree. Choose “N” if you neither agree nor disagree. Choose “D” if you disagree. Choose “SD” if you strongly disagree

I learned the foods that I should eat every day.

I learned what makes up a balanced diet.

I learned how to make healthy food choices.

I eat more fruits and vegetables.
Credit Score Game
Animations & Social Media
Scientific Visualizations

Norovirus
Caliciviridae Family

Small Round Structured Viruses

Image credit: CDC
Our Media Limelight
DON'T WASH YOUR CHICKEN!
Julia Child Was Wrong: Don't Wash Your Raw Chicken, Folks

by MARIA GODOY
August 23, 2013 8:48 AM ET

Listen to the Story
Morning Edition
DON'T WASH YOUR CHICKEN

Although raw chicken and turkey can carry bacteria on their surfaces, research has shown that washing raw poultry under running water in your kitchen sink is a bad idea.

If germs were visible to the naked eye, you would see that washing poultry just splashes bacteria all over you, your kitchen towels, your countertops, and any other food you have nearby, such as raw foods or salads. This can make people sick, especially young children, pregnant women, older adults and the immunocompromised.

Instead, just take raw poultry straight from the package into the cooking pan. The heat from the cooking process will kill any bacteria that are present. Then simply clean up any splashes and wash your hands with soap and hot water.

To learn more, explore the four mini dramas or the photonovellas.
Virtual Labs
Which method would work best?
Choices: Refrigerate, Storage bag, Dry, Add sugar, Add salt
After drying for several hours the optimum $a_w$ of dried strawberries is less than 0.6.
Now stir the strawberry concoction.
Some of our partners

- Exergames Unlocked, West Virginia U
- Touring, US Commerce
- HuNoV, North Carolina State U
- Bone Health, Purdue
- Elderly Care, Clemson
- Fresh Produce, The Ohio State U
- Just in Time Parenting, eXtension
- Livestock Diseases, U of Hawaii
- Food Prep., Navajo Tribe
- Child Care Safety, Michigan State U
- Math Snacks, NSF
- Salmonella, Drexel
- Tread-sylvania, National 4-H
- Spanish Videos, USDA-FSIS
- Ninja Kitchen, Rutgers
- Parenting, CYFAR
- Virtual Science Labs, North & South Dakota
- Iraqi Communications, Texas A&M
- Rangelands, Zuni Tribe
- Lobster Diver, U of Maine
What about placement?

**Barbara Chamberlin (@bchamber), Amy Muise (@NMSUProductions)**

- Brain POP
- GlassLabs
- PBS Media
- Pearson
- OLE
- Playful Learning
- Edmodo
- eSpark
- Kongregate
- JayisGames
- Graphite
- Serious Games Directory
- Clark Chart
- MERLOT
- MERLOT
- ____ school in ____

Self-distribution

Manages partnerships & placement
How are people exposed to our learning tools?

- 12 BrainPOP Games: 4,439,719 plays
- Hundreds of YouTube Videos: 2,064,159 views
- 20 Web Server Resources: 843,669 views
- 15 Apps: 130,196 downloads

2015
What are we working on now for you?
Potluck Panic Game

- convey risk, and other concepts related to food safety
- show complexity of outbreaks

Development and Assessment of an Educational Module for College Students for Conceptual and Attitudinal Changes towards Food Safety Systems
Lead PD: Kali Kniel, University of Delaware

Grant #: 2012-02732
USDA Program Officer: Antonio McLaren
Cooking App for Kids & Families:

- Emphasize garden vegetables
- Get families cooking and eating together

Connecticut Fitness and Nutrition Clubs in Motion
Lead PD: Umekia Taylor, University of Connecticut

Grant # 2012-68001-19956
USDA Program officer: Diedra Chester
Apps for toddlers & their families

• better feeding and eating
• better core movement

Bridging Home and Preschool Environments to Promote Healthy Eating and Activity Behaviors and Prevent Obesity in Early Childhood
Lead PD: Laura Bellows, Colorado State University

Grant # 2015-68001-23240
USDA Program officer: Deirdre Chester
Water reclamation for agricultural production

- identify alternative water sources
- research reclamation
- educate producers & students

CONSERVE: A Center of Excellence at the Nexus of Sustainable Water Reuse, Food, and Health
Lead PD: Amy Sapkota, University of Maryland

Grant # 2016-68007-25064
USDA Program officer: James Dobrowolski

photo by Katherine Smith on Flickr
Zinkicide: A Nanotherapeutic for HLB

- share findings and recommendations with growers

Zinkicide:A Nanotherapeutic for HLB
Lead PD: Evan Johnson, University of Florida
Grant #: 2015-70016-23010
USDA Program officer: Tom Bewick
SPECA Classroom Tools:

- teach math and language arts
- create online tools for 6th grade
- focus on food safety research

Advancing Adolescent Food Safety Education through Inquiry-Based STEM Instruction and Innovative Media Strategies
Lead PD: Jennifer Richards, University of Tennessee

Grant # 2015-38414-24223
USDA Program officer: Katrena Hanks
Reaching Multicultural Audiences
Chemistry Tools for College Students:

- Help undergrad, Ag Science majors understand key chemistry concepts
- Add to existing ScienceofAgriculture.org

Raising the Gates Addressing Gaps in Students' Understanding of Math and Chemistry in the Animal and Plant Sciences
Lead PD: April Ulery, NMSU

Grant # 2014-38422-22089
USDA Program officer: Irma Lawrence
The Power of Innovative Media

Work from NMSU's Media Productions & Learning Games Lab

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