



Monster Mayhem Lesson Plan for Homeschool

Overview

Raddish is designed by a dedicated team of teachers and chefs who believe the kitchen classroom is the tastiest place to learn. We love watching learning come alive when kids mix math, stir science, and taste culture!

Paired with the materials found in your Monster Mayhem box, this lesson plan divides your box into 3 45-90 minute lessons you can use and adapt to support your homeschool study, pre-k – middle school. Depending on your timeframe and child's age and engagement, these can be taught together or separated for a longer lesson. Please refer to the curriculum provided in your box: recipe guides, activity card, and introduction card. Happy cooking! Happy learning!

Lesson 1: 5-Eyed Breakfast Bake & Geography of North Africa

Activity Time: 60-90 minutes

Learning Outcomes

- Students will learn the countries of North Africa and be able to locate them on a map. (Morocco, Tunisia, Algeria, Libya, Egypt, Sudan, Western Sahara)
- Students will learn which bodies of water, mountain ranges, and deserts create the boundaries of North Africa.
- Students will learn that the global clustering of these countries is based on: social and cultural similarities, geographic and climate similarities, historical movements of people, etc.
- Students will learn about the variety of people that live in Northern Africa.
- Students will choose one aspect of North African geography or daily life, research it, and explain what makes that thing North African.
- Students will read and practice the **Featured Culinary Skill- Cracking an Egg.**
- Students will make and share 5-Eyed Breakfast Bake with family and friends.



Materials

- Recipe guide, ingredients, and tools listed within.
- World Map, Atlas, Globe
- *North Africa's Climate Map and Worksheet* (included)
- Books about North Africa
- Access to internet for research
- Activity (materials dependent on student choice)
 - Art supplies
 - Research materials, internet, books
 - Musical instruments
 - Found materials- cardboard boxes, plastic bottles, magazines, etc.

Resources

- History/Geography: <http://exploringafrica.matrix.msu.edu>
- African Countries: <http://exploringafrica.matrix.msu.edu/country-overview/>
- Islam: https://www.ducksters.com/history/africa/islam_north_africa.php
- Africa: <http://www.kids-world-travel-guide.com/africa-facts.html>
- Aswan Dam: <http://primaryfacts.com/1355/aswan-dam-facts-and-information/>
- Maps of North Africa (*note that they all differ in which countries are included as part of North Africa*):
 - <https://www.mapsofworld.com/africa/regions/northern-africa-map.html>
 - <http://mapsof.net/africa/north-africa-map>
 - https://commons.wikimedia.org/wiki/File:Map-Africa-North_Africa_Regions.png
 - <https://lizardpoint.com/geography/africa-northern-quiz.php>
 - <https://www.pinterest.ie/pin/469359592389494058/>

Videos

Optional

- Destination North Africa- National Geographic (5:06) <https://www.youtube.com/watch?v=QpN-vGd9GcY>
- Geographic Overview of North Africa- Discovery Education (2:29) <https://www.youtube.com/watch?v=sPC7X4STJVE>
- Rain Shadow Effect (4:26) <https://www.youtube.com/watch?v=DoKTTHd-XEQ>



Books

www.colourofus.com/20-childrens-books-set-in-the-middle-east-northern-africa/

Preschool

- My Father's Shop by Satomi Ichikawa (Morocco)
- We're Sailing Down the Nile by Laurie Krebs (Egypt)
- Hands Around the Library: Protecting Egypt's Treasured Books by Karen Leggett Abouraya (Egypt)

Elementary School

- The Butter Man by Elizabeth Alalou (Morocco)
- The Sabbath Lion: A Jewish Folktale from Algeria by Howard Schwartz (Algeria)
- The Day of Ahmed's Secret by Florence Perry Heide (Egypt)
- Brothers in Hope by Mary Williams (Sudan)
- Snow in Jerusalem by Deborah Da Costa (Israel and Palestine)

Middle School

- The Red Pencil by Andrea Davis Pinkney (Sudan)
- The Shadows of Ghadames by Joelle Stolz (Libya)
- A Long Walk to Water by Linda Sue Park (Sudan)

1. Introduction- Serving Shakshuka

- **Bring** the Recipe Guide and a World Atlas or maps of Africa to the class.
(*Optional:* check out some or all of the maps listed above and have students note the differences and similarities)
- **Read** together and study the map in the **Serving Shakshuka** section of the 5-Eyed Breakfast Monster recipe guide.
 - **Ask:**
 - What do you notice about the map?
 - Do you know what continent this is?
 - What countries can you find on this map?
 - What bodies of water are labeled? What bodies of water are not labeled that surround the countries?
 - What country is mentioned in the text but not labeled on the map? Why do you think that country is included? What does it have in common with the other countries?
 - What is this area of the world called? Why do you think these countries are included?



- **Share:** Today we are going to learn about this area of the world called North Africa. We will talk about two of the ways that these countries are grouped together: by their physical geography and by their people. Then you will choose to learn more about one aspect of the region: music/instruments, food, mountains, religion, architecture, deserts etc. and then explain what makes it North African.

2. North African Geography

Materials Needed

- *North Africa's Climate Map and Worksheet* (included)
- Pencils, colored pencils for map
- Atlas
- Access to the internet to look at maps listed above
- **Share:** First, we will learn about the physical geography that helps to define North Africa as a separate part of Africa.
 - **Water**
 - There are almost no surface waterways throughout the area of North Africa! The only exception is the Nile River in Egypt. Today the Aswan Dam in Egypt, controls the Nile River. Before the dam was built, the Nile flooded every year depositing fertile soils that were carried all the way from Ethiopia and Sudan. Now that the flooding is controlled, the Nile irrigates farms all along where it used to flood.
 - **Ask:**
 - If the Nile is the only water source, how do you think other North Africans survive?
 - What other water resources can you see on the map?
 - The countries that border the Mediterranean Sea (Morocco, Algeria, Libya, and Egypt) have fertile areas along the coastline that are hydrated by their proximity to the sea.
 - The Atlas Mountains that stretch from the Atlantic Coast of Morocco all the way to Tunisia also help the region to get water.
 - **Ask:**



- How do you think that Mountains can help with water?
 - The mountains form a high barrier/wall that catches water from the clouds! The water from the clouds becomes rain high up in the mountains that then creates rivers and streams that run down the sides of the mountains.
- **Desert**
 - The Sahara Desert covers at least part of every country in North Africa.
 - It covers 3.3 million square miles! The entire United States, including Alaska and Hawaii, is only slightly larger (3.7 million square miles.)
 - Temperatures in the desert can be 130 degrees Fahrenheit during the day and can fall below freezing at night.
 - **Ask:**
 - Can you imagine what it would be like to have summer during the day and winter at night every day?
 - When you picture a desert in your mind what does it look like?
 - Sand storms often blow through the desert and move tons of sand around North Africa. These piles of sand, or **dunes**, are probably what you picture when you think of a desert. However, the desert also contains hard rock, gravel beds, and dry mountains.
 - Just like in the movies and cartoons, the Sahara, also has small fertile pockets, called **oases**, that are supplied with water from mountain streams or underground water sources. These oases are important water stops for desert travelers and herders of animals.
- **Mountains**
 - The Atlas Mountains change the climate of North Africa in two ways:
 - Wet North: the mountains trap moist air from the Atlantic and Mediterranean which creates rain for mountain communities and the lowlands below
 - Dry South: the mountains create a **rain shadow** in the South – an area that gets no moist air so remains very dry – this creates the Sahara Desert



Extension Ideas

- Learn more about desertification
 - <http://www.africanculturalcenter.org/environments>
 - <https://www.factsmania.org/deserts/desertification-facts.htm>
 - www.conservenature.org/kids/learn/climate_change/desertification.htm
- Learn more about the Rain Shadow Effect (4:26)
<https://www.youtube.com/watch?v=DoKTTTd-XEQ>

3. People of North Africa

Younger Students

- **Note:** The history of northern Africa is long and complex. Younger students would benefit from learning about the life of one child, or family so that they can create personal connections and understanding from there.
- **Choose a book** that tells about the life of a child in North Africa. (see the list above)
- **Discuss** the book:
 - Where does the main character live? Can you find it on a map?
 - What clothes do they wear?
 - Can you tell what the weather is like where they live?
 - What do you know about their family?
 - Did you learn about any foods that they eat?
 - What problems/adventures do they have?
 - How is the main character similar or different to you?
- Optional Activity Ideas:
 - Draw a picture of the main character in the book
 - Explore characters further. Have the students consider:
 - If you could talk to the main character what would you say to them? Have students write them a letter.
 - If you could be a character in the book who would you be and what would you do? Have students retell the story with themselves as the character.

Older Students

History



- The earliest humans moved into the area of North Africa more than 30,000 years ago! Between 9000 and 6700 BCE (Before Common Era) the people living in the area developed food cultivation and began to domesticate animals (sheep and goats). People in North Africa began growing grain crops like wheat and barley, imports from the Middle East (another connection to North Africa) because traditional African crops, like yams wouldn't grow in that region.
- Egypt was a crossroads for the movements of people, goods and practices (like agriculture) from southern and central Africa with the people of the Middle East and North Africa. By 2000 BCE the Sahara had gotten bigger and then spread across the continent, creating a 1,500 mile barrier across northern Africa. Now with less land that people could live on they gathered together in larger populations in the lush Nile valley.

Camels and the Berbers

- **Ask:** How do you think the arrival of camels changed life for the people of North Africa?
- Arrival of camels:
 - Around 1000 BCE camels came to North Africa.
 - When the **Berbers**, a group of people that lived on the edges of the Sahara, were introduced to camels, their whole way of life changed!
- How camels changed things:
 - The Berbers used to be dependent on staying close to their agricultural fields and sources of water.
 - Camels could take people deep into the desert with little need for water and provided milk and meat.
 - The Berbers could become **nomads** - they lived in temporary dwellings and moved whenever new pastures were needed.

Trade

- Over the next few hundred years the Berbers crisscrossed the Sahara and re-opened trade routes with western and sub-Saharan (south of the Sahara) Africa.
- This trade made the people on both sides wealthy and created pathways for other influences (religion, language, culture) to come into and across North Africa.

Language

- Language is often separated into two groups by what you use it for:
 - speaking (informal communication)



- writing (formal communication).
- Languages of North Africa:
 - Arabic:
 - Most of North Africa speaks Arabic.
 - The most common written language in North Africa is Modern Arabic. This is what children are taught in school.
 - Berber:
 - The Berber people speak Berber
 - There are ~300 dialects spoken throughout the region.
 - Berbers who travel outside of their home areas also often speak Arabic.
 - Berber does not, currently, have a recognized written language.

Colonialism

- The countries of North Africa were all at one time in their past **colonized** by other European countries. This means that at one time the African country was fully or partially politically controlled by another country.
 - Former colonies:
 - Western Sahara by Spain
 - Morocco, Algeria, and Tunisia by France
 - Libya by Italy
 - Egypt by England and France
 - Sudan by England
 - European colonialism, in North Africa, ended in the 1950's.
 - **Ask:**
 - How do you think Colonization effected language spoken in North Africa?
 - Do you think that there is still an impact on languages spoken in North Africa today? Why or why not?
 - How many languages do you speak? Your friends and family?
- Language & colonization:
 - While Arabic is taught most in schools, children begin learning second languages around the 6th grade.
 - In Morocco, French is taught
 - In Egypt, English is taught.



- The colonial influences from almost seventy years ago still have an impact today! It is not unusual for an educated North African to speak three, four or even five languages!

Urban vs. Rural Living Today

- City Life
 - Clothing:
 - You see people walking down the street wearing a mix of both traditional and western clothing.
 - The traditional clothing varies somewhat from country to country across North Africa.
 - Overall, younger people, tend to dress more modern while older people tend to dress more traditionally.
 - Wealth (the amount of money and resources one has):
 - Wealth is diverse. Some people live in incredible mansions, others live in middle class apartments, while yet others live in overcrowded housing on the edges of the cities.
 - **Ask:** What factors do you think affect people's wealth? In North Africa? where you live?
- Rural Life
 - People tend to live more traditional lifestyles but things are always changing.
 - More children have access to schools and families to improved healthcare.
 - Changing agricultural practices and increasingly poor farmland have more families sending their children away to school and to get jobs in cities and send money home.
- Comparing city and rural life:
 - **Ask:**
 - If you live in a city- do you notice a diversity of wealth? Types of housing?
 - If you live in the country or a small town- do you notice a diversity of wealth? Types of housing?
 - What do most people where you live wear on a day to day basis?
 - What kinds of homes do you and your friends live in? how are they similar or different?



- Nomadic Life
 - For nomadic peoples (the Berbers) environmental change and other factors has led to most settling in one place. Only a few still move freely around the desert with their herds.
 - **Ask:**
 - If you came from a nomadic culture do you think you would prefer the new life in one place or the more traditional one of moving around? Why?
 - What environmental changes do you think are affecting their lifestyle?

Video (optional)

- Destination North Africa- National Geographic
(5:06) <https://www.youtube.com/watch?v=QpN-vGd9GcY>

Extension Ideas

- Read some of the books about North Africa listed above.
- Learn more about the historical importance of the Nile valley.
- Learn more about colonialism. How is it a part of US history?
- Learn about the challenges and opportunities that girls face in North Africa.

4. What Makes “it” North African?

- Choose something about the geography or people of North Africa to learn more about. Some ideas:
 - Traditional and Cultural Clothing
 - The Nile River
 - Camels
 - Artists
 - Musical Instruments
 - Religion
 - Food
 - Etc.
- Research more about it:
 - What area is it from?
 - What ingredients, materials, people are involved?
 - How is it used?



- Who does it affect?
- Etc.
- What about it:
 - Is interesting to you?
 - **Makes it North African?**
- How will you share what you learned? For example:
 - Design a dress (on paper or with material)
 - Make a North African instrument or play a North African-style song
 - Teach others about an artist that you like
 - Make a recipe with North African ingredients
 - Etc.

5. Kitchen Prep

- Read the 5-Eyed Breakfast Bake recipe card together.
- Identify and gather ingredients.
- Gather tools.
- Read the **Featured Culinary Skill- Cracking an Egg.**
- Discuss kitchen safety. Specifically, stove top safety (Visit Raddishkids.com/pages/safety).

6. Prepare 5-Eyed Breakfast Bake

- a. Ask children to read or describe each step.
- b. Together, follow the steps in the recipe.
- c. Give each child a turn to cut, bake, and **crack eggs.**
- d. When the 5-Eyed Breakfast Bake is ready, eat, taste and share!
- e. After your friends and family are done eating teach them something about the geography and/or people of North Africa. Show them what you researched and what about it makes it North African.



Lesson 2: Broccoli Swamp Fritters & Swamp Life

Activity Time: 30-90 minutes

Learning Outcomes

- Students will learn in depth about swamps.
- Students will learn the terms *flora* (plants) and *fauna* (animals).
- Students will learn why swamps are important to our environment.
- Students will show what they learned by: creating a model, writing a letter, writing or performing a song, or by researching a swamp.
- In the **Featured Culinary Skill** students will learn **Frying Safety**.
- Students will make Broccoli Swamp Fritters to share with their friends and family.

Materials

- Recipe guide, ingredients, and tools listed within.
- Atlas, globe, or topographic map (shows detail of natural and man-made features)
- Books about swamps (for ideas see list below)
- Videos (see list below)
- Chart paper and Markers for KWL Chart
- Activity Materials (depends on the activity chosen see materials needed for each listed at the start of each activity description)

Resources

- Americas Wetlands- learn about, science, restoration- <https://www.epa.gov/wetlands>
- National Oceanic and Atmospheric Administration- What you can do for Coastal Wetlands www.habitat.noaa.gov/protection/wetlands/whatyoucando.html
- Wetlands Natural and Necessary www.yorkccd.org/wordpress/wp-content/uploads/2012/12/Wetlands_Natural_Necessary.pdf
- Swamp flora and fauna <http://techalive.mtu.edu/meec/module12/CreaturesofSwamp.htm>
- Flora and fauna of the Everglades <http://www.odditycentral.com/pics/seven-flora-and-fauna-that-can-only-be-found-in-the-everglades.html>
- Swamp ecosystem <http://www.wildernesscollege.com/swamp-ecosystem.html>



- Okefenokee swamp animals <http://okeswamp.com/about-the-park/swamp-animals/>
- List of swamp animals with pictures www.enchantedlearning.com/biomes/swamp/swamp/shtml
- Swamp summary, animals and threats to swamps <https://a-z-animals.com/reference/swamps-and-wetland/>
- Native flora and fauna in Florida swamps <https://www.floridamuseum.ufl.edu/southflorida/habitats/cypress-swamps/flora-fauna>
- Endangered Florida Everglades Flora and Fauna <https://www.floridamuseum.ufl.edu/southflorida/regions/everglades/endangered-species/>
- Local cleanup in Georgia www.satillariverkeeper.org.
- National wetlands protection- Ducks Unlimited www.ducks.org/conservation

Videos

- Going on a Bear Hunt https://www.youtube.com/watch?v=5_ShP3fiEhU
- Deep in the Swamp- with Swamp Facts (11:18) <https://www.youtube.com/watch?v=of40yzH9uk4&t=327s>
- Popular Mechanics for Kids- Season 2 Ep. 15 "Swamps and Gators" (22:40) <https://www.youtube.com/watch?v=Jm0PJv27COk>
- What's a Wetland? (4:25) https://www.youtube.com/watch?v=eVLuM18mB_U
- The Wetland Rap! Ecosystem song for kids (4:10) <https://www.youtube.com/watch?v=X33FX8pG-Dc>
- What makes a wetland? (3:44) <https://www.youtube.com/watch?v=bRCPQebNIgA>

Books (optional)

- [Marshes and Swamps](#) by Gail Gibbons
- [Frogs](#) by Gail Gibbons
- [Bedtime at the Swamp](#) by Kristin Crow
- [Deep in the Swamp](#) by Donna M Bateman
- [The Swamp Where Gator Hides](#) by Marianne Berkes
- [Liza Lou and the Yeller Belly Swamp](#) by Mercer Mayer
- [Over the Steamy Swamp](#) by Paul Geraghty
- [Spoonbill Swamp](#) by Brenda Z. Guiberson



- OH NO! Hannah’s Swamp is Changing written by Marilyn Barrett-O’Leary available nsgl.gso.uri.edu/lisu/lsub02001.pdf
- For older readers: Blackwater Swamp by Bill Wallace

1. Introduction- What do I already know about swamps?

- Read a book like, Deep in the Swamp by Donna M Bateman (or other suggestions above.) This book is an easy read for older students but the information included in the story and the swamp facts at the end are great for all students.
 - Read aloud available: Deep in the Swamp- with Swamp Facts (11:18) <https://www.youtube.com/watch?v=of40yzH9uk4&t=327s>
- Pre-Reading discussion points (for any swamp book):
 - Discuss the title and cover of the book.
 - What kinds of animals do you think live in a swamp?
 - What do you think it would smell like in a swamp?
 - Do you think it is hot or cold? Dry or wet?
 - Have you ever been to a swamp? Would you like to visit a swamp?
 - Where do you think swamps are located?
- After Reading:
 - What did you learn about life in a swamp?
 - What kinds of animals (fauna) live there? Why?
 - What kinds of plants (flora) grow there? Are they special in any way?
 - What do you think makes a swamp a swamp?
- Have students **share** what they have learned
 - **Create** a KWL chart.
 - Fill in the first column with what students know after reading.
 - Fill in the second with questions generated by students about what more they want to find out.
 - Fill in the third column as students find answers to their questions.

What I KNOW	What I WANT to know	What I LEARNED



- **Share:** Today we are going to learn about wetlands in general and swamps in more detail. We are going to learn about the *flora* (plants) and *fauna* (animals) that call swamps home. We will also investigate why swamps are an important part of the environment. Finally, you will get the chance to show what you learned in some really fun ways!

2. What is a Swamp?

- **Review** the questions that the students have generated about “What they WANT to know” about swamps. Pick two or three to focus on.
 - **Ask:** Where might we find answers to these questions?
- **Share** how to think like a researcher:
 - look in a book (see the list above)
 - ask an expert (National Park Service, Environmental Protection Agency)
 - search the internet
 - Swamp flora and fauna
<http://tecalive.mtu.edu/meec/module12/CreaturesofSwamp.htm>
 - Flora and fauna of the Everglades <http://www.odditycentral.com/pics/seven-flora-and-fauna-that-can-only-be-found-in-the-everglades.html>
 - Swamp ecosystem <http://www.wildernesscollege.com/swamp-ecosystem.html>
 - Okefenokee swamp animals <http://okeswamp.com/about-the-park/swamp-animals/>
 - List of swamp animals with pictures
www.enchantedlearning.com/biomes/swamp/swamp/shtml
 - Swamp summary, animals and threats to swamps <https://a-z-animals.com/reference/swamps-and-wetland/>
 - Native flora and fauna in Florida swamps <https://www.floridamuseum.ufl.edu/southflorida/habitats/cypress-swamps/flora-fauna>
 - Watch a video
 - *For Younger Students:* What's a Wetland?
(4:25) https://www.youtube.com/watch?v=eVLuM18mB_U
 - *For All Students:*
 - What makes a wetland a wetland?
(3:44) <https://www.youtube.com/watch?v=bRCPQebNlgA>



- Popular Mechanics for Kids- Season 2 Ep. 15 "Swamps and Gators"
(22:40) <https://www.youtube.com/watch?v=Jm0PJv27C0k>
- **Record what you have learned**
 - Train students that while they are researching they should keep their KWL chart handy and a notebook, or graphic organizer, to write down, dictate or draw, new information that they find pertinent or interesting.
- **Consolidate Learning**
 - Answer the question: **What makes up a swamp?** (this includes the landscape, the animals and the plants)
 - **Record** this information in any way as long as it helps **them** to remember. Some ideas are:
 - Draw a picture
 - Create a table
 - Make a mind map with interconnections
 - Make a Venn diagram

3. Why are Swamps Important?

- **Nature's Clean-up Crew**
 - All kinds of flora (plants) grow in swamps. Some examples are:
 - pond cypress
 - bald cypress
 - swamp tupelo
 - wax myrtle
 - Spanish moss
 - bromeliad
 - These trees and plants act like the best clean-up crew you could ever hire!
 - They absorb some of the pollution that washes into the swamp.
 - If the clean-up crew misses any of the pollutants, they tend to sink into the muddy, sludgy bottom of the swamp and get covered up with more silt. This gives time for the pollutants to break down and become non-harmful to the environment.
- **Storm Protectors**
 - Swamps are like nature's paper towels! They soak up water when it rains a lot.



- This helps protect the land around them from flooding or being washed away completely when there is a big storm.
- Swamps also store up water in times when it can be quite dry.
- **Science and Education**
 - Swamps provide important locations for scientific research, and play an important role in educating people about biodiversity (lots of flora and fauna living together).
 - Scientists conduct research about:
 - how water flows into and out of swamps
 - the effects of flooding
 - how the lives of birds, plants, and animals are affected by changes in their habitat
 - (Optional) Explore a nearby swamp and see if they have an educational program.
- **Hey We Live Here! Flora and Fauna**
 - Many different kinds of fauna (animals) and flora (plants) call swamps home. They live together in the swamp habitat.
 - Swamps provide important habitats for many rare, important and endangered species.
 - Some examples of endangered species of the Florida Everglades are:
 - Florida Panther
 - Manatee
 - American Crocodile
 - Tree Cactus
 - piping plover
 - More: <https://www.floridamuseum.ufl.edu/southflorida/regions/everglades/endangered-species/>
 - Swamps are used by many migratory birds as stopping points on their journey where they can rest, and feed before continuing on their way.
- **People get stuff out of swamps too!**
 - People eat fish, shellfish, blueberries, cranberries, and wild rice that all grow in swamps.
 - Harvesting trees:



- People use Swamp Cypress for wood, because it grows in the wet, buggy environment of a swamp it is resistant to rotting. It is excellent to use for boat-building, fences, and garden boxes.
- Some medicines are even made from swamp soils and plants!

4. Show What You Know

Younger Students Activity Ideas

Swamp Sensory Tub

Materials

- gelatin or Jello without sugar
- a large container to make the gelatin in
- measuring cup and spoon
- some plastic swamp creatures/insects, little sticks, leaves, grass (whatever students think belong in a swamp)
- water and a large tub or water table to play in.

For full instructions go to: <https://www.notimeforflashcards.com/2012/05/swamp-sensory-tub.html>

Make a Song

- Sing a call and response song like “We’re Going on a Bear Hunt” (example of the song can be found here https://www.youtube.com/watch?v=5_ShP3fiEhU) but change the words to “Going on an Alligator Hunt” and have the students use the flora and fauna found in a wetland to encounter on their adventure.

Older Students

Model of a Wetland

Materials

- modeling clay
- roasting pan
- small piece of indoor/outdoor carpet
- sponges
- pine needles, twigs, grass weeds (whatever students think belong in a swamp)
- jar of muddy water
- cardboard
- glue



- scissors
- pencil and paper
- water
- pictures or videos of wetlands and wetland animals and plants

For full instructions go to http://www.nwf.org/Global-Warming/School-Solutions/Eco-Schools-USA/Become-an-Eco-School/Special-Report/~/_media/PDFs/Eco-schools/wetlands3Activities.ashx

Make a Song

- Watch: The Wetland Rap! Ecosystem song (4:10) <https://www.youtube.com/watch?v=X33FX8pG-Dc>
 - **Ask:**
 - What flora and fauna were included in the rap?
 - What flora and fauna were not included in the rap?
 - **Choose** one or more of those things that were not included in the rap and create your own verse!

Protect Important Swamp Habitats

- You can help to raise awareness about the importance of swamps by:
 - teaching your friends, family, school communities, church groups, girl guide groups etc.
 - writing letters to companies or organizations that threaten swamp land and let them know why you think they should change their practices.
 - joining a group that does swamp or wetland clean up or organizing a group of your own.
 - Examples:
 - Satilla Riverkeeper in Georgia www.satillariverkeeper.org
 - Ducks Unlimited www.ducks.org/conservation
 - learning more about what the Environmental Protection Agency is doing to protect wetlands and swamps.

5. Kitchen Prep

- a. Read the title page together.
- b. Identify and gather ingredients and tools.
- c. Read the **Featured Culinary Skill- Frying Safety.**



- d. For further discussions about kitchen safety (Visit Raddishkids.com/pages/safety).

6. Prepare Broccoli Swamp Fritters

- a. Ask children to read or describe each step.
- b. Give each child a turn mashing, cracking, and **frying**.
- c. While the Broccoli Swamp Fritters are frying. Read the **5 Ways to Serve Broccoli** section of the recipe guide. Can you think of a recipe to fit each way of serving broccoli?
- d. When the Broccoli Swamp Fritters are ready, eat, taste and share!
- e. Show what you know about swamps with your friends and family.



Lesson 3: Monster Mash Meatloaves & Compound Word Smash!

Activity time: 45 minutes

Learning Outcomes

- Students will begin to recognize compound words.
- Students will be able to give the definition of a compound word.
- Students will identify, create, and determine the meaning of compound words.
- Students will learn the term *rebus* (a picture that stands for a word)
- Older students will learn that there are three different types of compound words: closed form (notebook), hyphenated form (six-year-old) and open form (post office)
- Students will use vocabulary strategies for determining the meaning of words: such as using context clues and dictionaries.
- Students will write or dictate simple and complex sentences with grade-appropriate grammar and conventions.
- Students will play a variety of games to practice compound word detecting, decoding, defining, and creating.
- Students will unleash their inner artist with the **Creative Faces** ideas to decorate their Monster Mash Meatloaves.
- In the **Featured Culinary Skill** students will learn **How to Mash**.
- Students will make Monster Mash Meatloaves.

Materials

- Recipe guide and ingredients and tools listed within
- Age-appropriate dictionary
- Chart paper and markers
- Items from around the house that are compound words, such as:
 - Hairbrush
 - Toothbrush
 - Cardboard
 - Baseball
 - Flashlight
 - Toothpick
 - Notebook



- Etc.
- List of Compound Words
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20word%20bank.pdf>
- Compound Word Activity Materials (depending on activity)
 - Sentence strips
 - Letter size paper or cardstock
 - Index Cards
 - Compound Word Notebook
 - Art materials: markers, paints, paper, magazines for collage, glue, scissors

Resources

- Compound Word Bank
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20word%20bank.pdf>
- Great Background Information for Families and Teachers
- <https://educators.brainpop.com/lesson-plan/compound-words-background-information-for-teachers-and-families/>
- Awesome resources and books and links to lists as well as activities and guiding questions
- <http://www.cpalms.org/Public/PreviewResourceLesson/Preview/39701>
Online games and lists
- <http://www.firstschoolyears.com/literacy/word/other/compound/compound.htm>
- word cards
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20Matching%20Cards.pdf>
- Fun compound word activities and more links
<http://education.yourdictionary.com/for-teachers/fun-exercises-for-compound-words.html>

Videos (optional)

- For younger students- Compound words
(3:34) <https://www.youtube.com/watch?v=LnJ34RkZqbU>

Books (optional)



- Cloudy With a Chance of Meatballs by Judy Barrett
- Once There Was A Bull...(Frog) by Rick Walton
- If You Were a Compound Word by Trisha Speed Shaskan
- Thumbtacks, Earwax, Lipstick, Dipstick: What is a Compound Word by Brian P. Cleary
- Flying Butter by Patricia Trattles

1. **Introduction- What do these things have in common?**

- **Collect** compound word items from around the house
 - Examples: hairbrush, toothbrush, cardboard, baseball, flashlight, toothpick, notebook, cookbook.
 - Try and find some items that have the same first or last word in common.
 - Bring these items to class and place on the table for students to observe.
- **Ask** students to name the items.
- **Write** the compound words on chart paper in the first column of a four-column chart.
- **Ask:** What do you notice about the words listed? Some prompting questions:
 - How long are the words?
 - Do some of the words start the same? (toothpaste and toothbrush)
 - Do some of the words end the same? (toothbrush and hairbrush)
 - How many words are in each word?
 - Do you know what these kinds of words are called? (They are called compound words.)
- **Create** a chart:

COMPOUND WORD	WORD #1	WORD #2	DEFINITION
hairbrush	hair	brush	It is a brush used on the hair to style or remove tangles.
toothbrush	tooth	brush	It is a brush used to clean teeth.

- Have students help you fill in the rest of the chart.
- For **younger students** and pre-readers:
 - Repeat the compound words in a way that they can easily hear the two parts. Perhaps, hold your hands together in front of you and say the word "toothbrush" then hold your right hand up and say "tooth" and



then the left “brush” then put your hands back together and say “toothbrush”.

- In the chart you can also draw pictures of each word and their compound.
- **Ask** the students to create their own definition for what a compound word is and have them share their ideas with the class.
- **Share:** Today you are going to learn about compound words. You are going to be a word detective and a word artist.

2. What is a compound word?

Younger Students

- A **compound word** is when two words are joined together to create a new meaning.
 - For example, butter and fly. When each of those words are separate they mean very different things than when you put them together.
- **Read** a book together and pick out compound words. Some suggested books are:
 - Cloudy With a Chance of Meatballs by Judy Barrett
 - Once There Was A Bull...(Frog) by Rick Walton
 - If You Were a Compound Word by Trisha Speed Shaskan
 - Thumbtacks, Earwax, Lipstick, Dipstick: What is a Compound Word by Brian P. Cleary
 - Flying Butter by Patricia Trattles

Older Students

- A **compound word** is when two (or more) words are joined together to create a new meaning.
 - For example, butter and fly. When each of those words are separate they mean very different things then when you put them together.
- There are three different types of compound words:
 - **Closed form:** Two words are joined together to create a new meaning
 - Examples: firefly, softball, redhead, keyboard, makeup, notebook
 - **Hyphenated form:** Words are joined together by a hyphen
 - Examples: daughter-in-law, over-the-counter, six-year-old



- **Open form:** Words are open but when read together, a new meaning is formed
 - Examples: post office, real estate, full moon

3. Be a Compound Word Detective

In Books

- **Read** a book and look for compound words.
 - Using context clues and word parts, have students determine the meaning of the word.
 - Younger Students can draw pictures of the compound words you find together.
 - Older Students can create a compound word notebook or list. Be sure to write the definitions as well as list the words.

Compound Word Scavenger Hunt Around the House or Neighborhood

- Search for compound words in a given area. Have students write or draw the compound words that they find.
 - Example: find 5 compound word items in the bathroom
 - toothbrush, toothpaste, makeup, etc.
- Draw compound words:
 - Take a sheet of paper and turn it horizontally (landscape), then fold both sides in to the midpoint of the paper, so that it looks like shutters on a window.
 - Draw (and write for older students) the first word on the front of the left flap, the second word on the front of the right flap, and then open the shutters and draw (and write for older students) the compound word on the inside. Older students can also write a definition. Students can check their meanings in a dictionary.

Extension Ideas

- Have a Compound Word Day where you create a costume that combines as many compound word items into it as possible.
- Older students can compare whether compound words in fiction and nonfiction (look there's another one!) texts vary.



4. Be a Compound Word Creator

Parts to a Whole New Meaning Game

Materials

- Compound Word list teacher resource
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20word%20bank.pdf>
- Index cards with compound words split between two cards
- Compound word chart from introduction, new chart, or student notebooks
- Large groups:
 - Give each student an index card with a word on it that is half of a compound word.
 - Invite students to walk around the room and find a partner whose word can join theirs to create a compound word.
- Small groups:
 - Post half the words around the class space
 - Have students choose one index card at a time from a deck to walk around the room and match to make compound words.
- If the students are not sure if their words will create a compound word, they can use a dictionary to check.
- Have students record the words either on the class chart you started in the introduction or in their own notebooks. Example: butter + fly = butterfly- an insect with delicate colorful wings

Rebus- A Picture Tells the Story of a Compound Word

Materials

- List of Compound Words
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20word%20bank.pdf>
- Paper and art materials for students to create compound word art
- Explain to students that a **rebus** is a picture that stands for a word.
 - For example, draw a foot and a ball and have students figure out the rebus- football.



- Challenge students to create a rebus of other compound words. They can use paper, markers, crayons or search in magazines and create collage rebuses.
- Have students swap their word art with one another and figure out the rebus.
- Hang rebus compound word art in the classroom.

Walk Down the Compound Word Sidewalk

Materials

- Index cards with complete compound words written on them
- List of Compound Words
<http://www.firstschoolyears.com/literacy/word/other/compound/resources/Compound%20Words%20word%20bank.pdf>
- Take a word such as sidewalk. Have student break the word into its two individual words side and walk.
- Now have student name a compound word that uses either of those words.
 - Examples, sidecar, sidestroke, walkway, walkout.
- Now break apart that word and then make another new word- outside, outdoor, outfield, backstroke, heatstroke, etc.
- Continue until you get stuck and then pick another new compound word to start from.

Extension Ideas

- Have students write/dictate silly sentences using as many compound words as possible in one sentence.
 - For example, "It was midnight and the snowman felt seasick from eating a pancake, popcorn, and underwear at the playground potluck party."
- Have students write/dictate a story with the compound words they have learned.
 - Example: Daredevil Backyard Scarecrow at Midnight!
- Draw a picture that includes as many different compound word items as you can think of. Then challenge your friends and family to find the items.

5. Kitchen Prep

- Read the title page together.
- Identify and gather ingredients and tools.



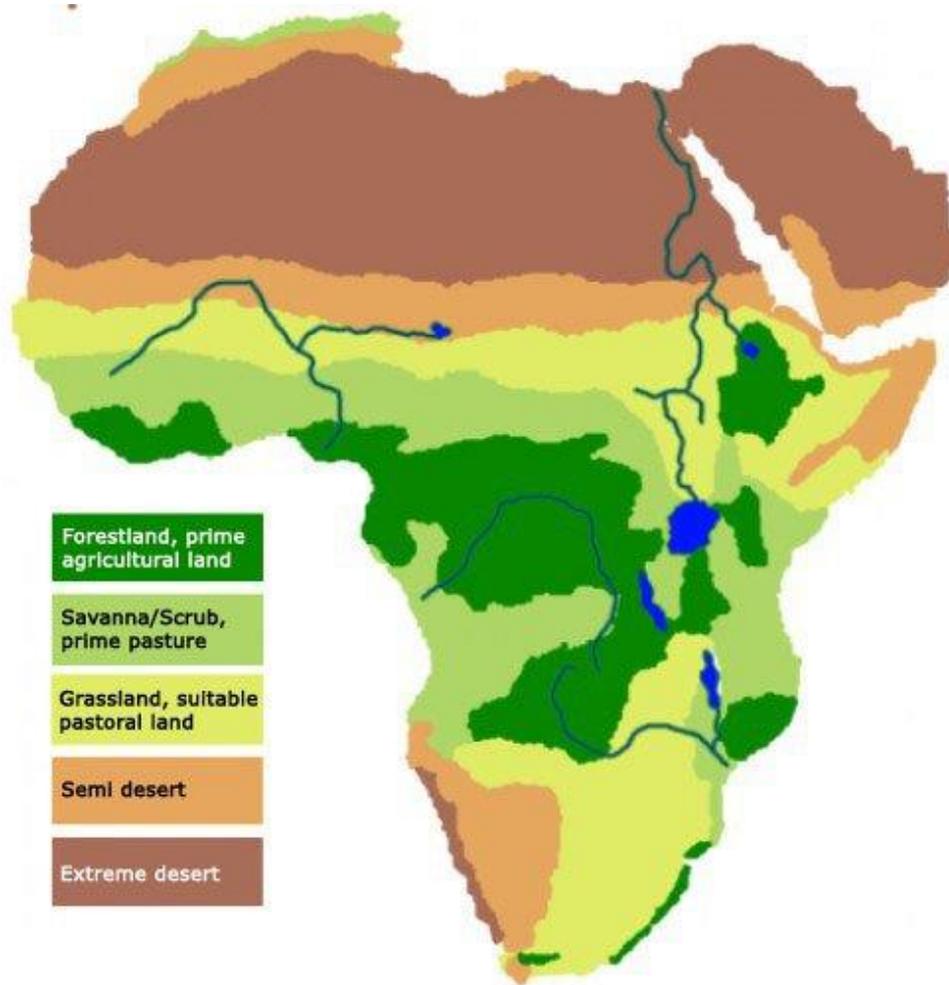
- Read the **Creative Faces** section of the Recipe Guide to learn some fun ideas for decorating your Monster Mash Meatloaves. Collect any extra ingredients you may want for decorating.
- Read the **Featured Culinary Skill- How to Mash**
- Discuss kitchen safety. Specifically, hand washing (Visit Raddishkids.com/pages/safety).

6. Prepare Monster Mash Meatloaves

- Ask children to read or describe each step.
- Give each child a turn cracking, scooping, and **mashing**.
- While the Monster Mash Meatloaves are baking try out your compound word knowledge with the **Monster Mash-Up** section of the recipe guide. Also you could decorate the eating area with your compound word art!
- Once the Monster Mash Meatloaves are ready, gather your family and friends together to Eat, Taste and Share!
- While everyone is enjoying their Monster Mash Meatloaves share your compound word knowledge by sharing some fun new words that you have learned or teach your friends and family some of the compound word games.

North Africa's Climate Map and Worksheet

From www.victoriafalls-guide.net/map-of-africa.html



What do you notice about the land in the North African region?

Focusing on just North Africa, label the following things on the map:

- bodies of water
- deserts
- mountain ranges
- plateaus