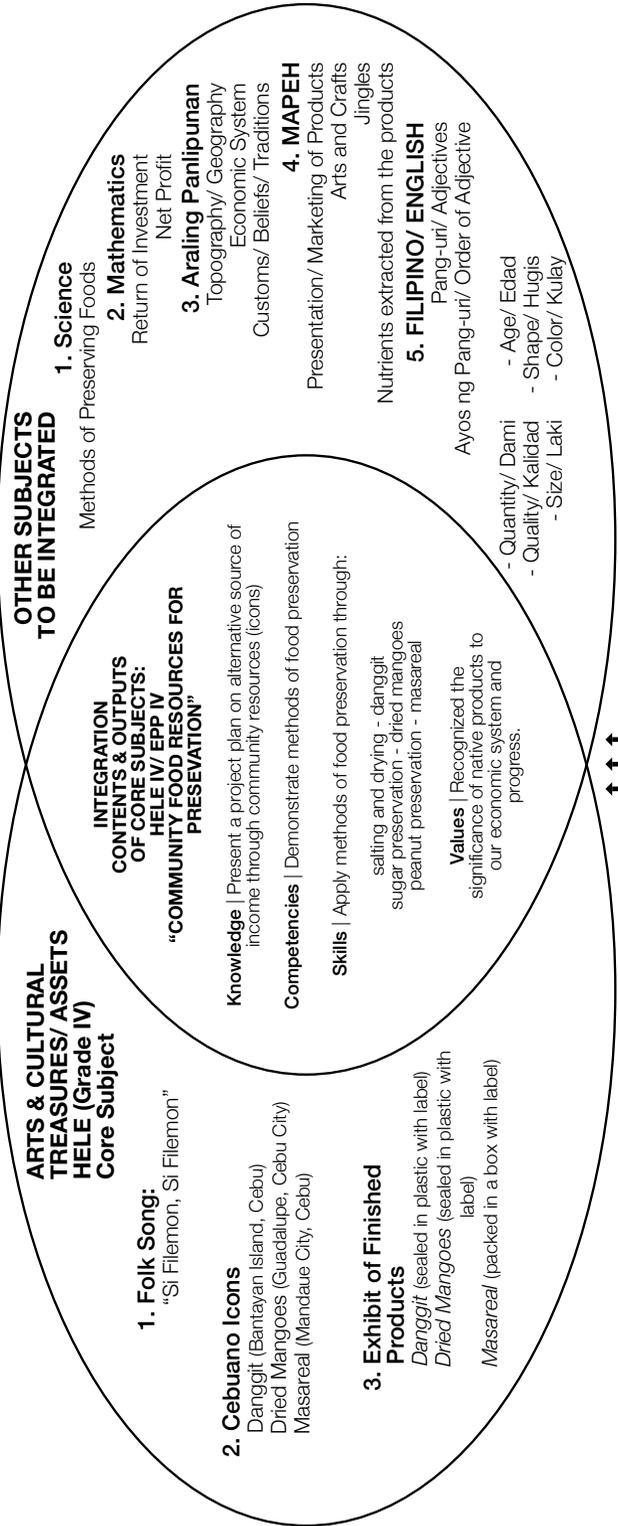


**SCHEMATIC DIAGRAM ON CONTEXTUALIZING HELE / EPP GRADE 4
LESSON ACROSS THE CURRICULUM IN CULTURE-BASED TEACHING**

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A. Teaching Tools
Motivation
1. Folksong (Si Filemon – Si Filemon)
2. Role Playing (Rowing of Boat and Fishing)
3. Success Story of Julia Gandionco: Owner of Julie’s Bakeshop

Knowledge

- Identify the mixtures used in preserving fish, mango, and peanut (Science)
- Estimate the gross expenses, net profit and return of investment (Math)
- Feature the places where manufacturing of foods take place (AP)
- Describe how to present or market the products with attractive decoration and eye-catching arrangement (MAPEH)
- List down the shapes, sizes, weight, and colors of the products (Fil/Eng)

<p>B. Learning Process (Methods of Preserving Foods)</p> <ol style="list-style-type: none"> 1. Danggit :Salting and Drying Preservation 2. Dried Mangoes: Sugar Preservation 3. Masareal: Peanut Preservation 			<p>Competencies</p> <ul style="list-style-type: none"> • Apply the performing ability in utilizing all ingredients in food preservation. (Science) • Calculate the overall income of finished products to be sold. (Math) • Research the main source of living or food production of a certain place.(AP) • Demonstrate the process of presenting and marketing of products and the proper way of arrangement and decoration. (MAPEH) • Predicts the outcomes of the products based on the different quantities and qualities of the products. (Fil/Eng)
<p>C. Assessment</p> <ol style="list-style-type: none"> 1. Identification of terminologies associated with danggit , dried mangoes and masareal. 2. Presentation of finished products. 3. Estimation of capital, return of investment, and profit. 4. Labelling of suggested retail prices of products sold in public markets, supermarkets, and pasalubong centers. 			<p>Skills</p> <ul style="list-style-type: none"> • Introduce and explain how to sold the danggit, dried mangoes and masareal. (Science) • Collect information of the overall income of finished products to be sold. (Math) • Investigate the economic status of the manufacturing companies. (AP) • Perform the methods of selling the products through arts and crafts, visual arts, audio presentation such as singing (MAPEH) • Evaluate the best possible development of business according to profits.(Fil/Eng)
<p>D. Enabling Activities (Group Activities)</p> <ol style="list-style-type: none"> 1. Presentation of Products through Arts and Crafts 2. Visual Arts in the form of Poster Making to convince the buyers. 3. Radio and Television Advertisement about the products. 4. Jingles about the products (Rap Song). 5. Descriptive writing about the product. 			<p>Values</p> <ul style="list-style-type: none"> • Conserve our Natural Resources as our main source of food production. (Science) • Practice the creative way of marketing the products. (Math) • Patronize our own food products as a symbol of our Filipino Culture. (AP) • Practice the artistic presentation or marketing of products to generate rapid incomes. (MAPEH) • Internalized the relevance of each product based on its differences in their retail prices or market prices. (Fil./Eng.)
<p>GUIDING PRINCIPLES</p> <ol style="list-style-type: none"> 1. Learning by Doing (<i>John Dewey</i>) All learning activities undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, and social-related perspective, in which the knowledge taken from the combination of grasping experiences and transforming them . 2. Metacognitive Skills (<i>John Flavell</i>) The learner has active control over the cognitive processes engaged in learning.. They have to plan, monitor, and assess one's understanding and performance using their critical awareness of one's thinking and learning oneself as a thinker and learner. 3. Experiential Learning (<i>David Kolb</i>) Learners make discoveries and experiments with knowledge firsthand, instead of hearing or reading about others' experiences. It provides opportunities in a student's field of interest in a valuable experiential learning which contributes significantly to their overall understanding of the real-life environment. 4. Integrative Learning (<i>Jeanne Brown Leonard</i>) A movement toward integrated lessons helping students makes connections across the curriculum. It comes in many varieties such as connecting skills and knowledge from multiple sources and experiences, applying skills and practices in various settings, utilizing diverse and even contradictory points of view, and understanding issues and positions contextually. 			

TEACHING-LEARNING PLAN FLOW

(A 3-DAY TEACHING-LEARNING SESSION)

Tirso P. Arcilla

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Basak, Mandaue City, Cebu
Division of Mandaue City

Core Topic: **“Community Food Resources for Preservation”**
Lesson Integration: **Arts, Cultural Treasures/Assets of Bantayan Island, Mandaue City, and Guadalupe, Cebu City, Cebu Province**
Icons: **Danggit (Rabbitfish, *Siganus canaliculatus*), dried mangoes, masareal**
Subjects: **Interdisciplinary: Science, Mathematics, Araling Panlipunan, MAPEH, English/Filipino**

1st Day (Science, Math, AP, MAPEH and Fil./Eng. Integrated)

OBJECTIVES:

At the end of the 1st day session, the students are expected to:

Knowledge:

- Identify the ingredients used for salting and drying danggit

Skill:

- Introduce the characteristics of danggit and explain how to sell it in a market.

Competencies:

- Apply the preserving ingredients to danggit and dry it under the sun.
- Discuss the methods of preserving danggit.

ACTIVITY 1

Title: **“DANGGIT PRESERVATION USING SALTING & DRYING METHOD”**
Time: **50 minutes**
Strategy: **Demonstration and Creative Presentation**
Type of Activity: **Explanation of Process in Class and Individual Practical Application**
Type of Assessment: **Diagnostic and Practical Test**
Level of Assessment: **Knowledge and Skills**
Instructions to Teacher: **Pre-teaching**

1. The class sings the Folksong “*Si Filemon, Si Filemon*”:

**“Si Filemon, Si Filemon ”
(Cebuano Folksong)**

Si Filemon, Si Filemon, namosol sa kadagatan
Nakakuha, nakakuha, ug isdang tambasakan
Gibaligya, gibaligya, sa merkadong guba
Ang halin pulos kura, ang halin pulos kura
Igo rang gipanuba.

**“Si Filemon, Si Filemon ”
(Filipino Translation)**

Si Filemon, Si Filemon, nangisda sa karagatan
Nakahuli, nakahuli, ng isdang tambasakan
Pinagbili, pinagbili, sa isang talipapa
Kumita ng kaunting pera, kumita ng kaunting pera
Ibinili ng alak na tuba.

The teacher then asks the students what the dramatic situation of the song is and the simple narrative it is trying to convey. After the students answer successfully, the teacher asks: “Aside from selling it to the market immediately, what else can be done to the fish?” If the students are able to answer “fish preservation” then they may skip activity 2. If not, the teacher can use activity 2 as a clue.

2. Rowing of Boat, then Picture-puzzle of danggit dried fish with descriptions.

(Group Activity)

2.1 Teacher distributes cut pictures to each group.

2.2 Teacher gives instructions on how to form the picture-puzzle.

2.3 Each group checks the formed picture-puzzle against the model with descriptions.

2.4 Each group explains to the class the picture-puzzle they have formed.



3. The teacher asks the students to read an article on Julia Gandionco – the successful owner of Julie’s Bakeshop.

PINOY SUCCESS STORY

By Ray Butch Gamboa (The Philippine Star) - August 31, 2013

<http://beta.philstar.com/business/2013/08/31/1153291/pinoy-success-story>

Franchising has really gone big in the Philippines. That the Philippines has become known as the franchising hub in this part of the world speaks volumes of how far the business of franchising has grown in the country. So many success stories have been documented and shared by the franchise association, and though not all of them

have grown as big as, say, *Mang Inasal*, some are even more remarkable in that they started ever so humbly and just grew exponentially over the years.

One of the *Cinderella* success stories in local entrepreneurship is *Julie's Bakeshop* which had its roots in Cebu City. *Business & Leisure* talked with Mr. Bien Topacio, a member of the *Gandionco* clan which started *Julie's Bakeshop* and is now the franchise business development manager of *Julie's*, and he traced the humble beginnings of the bakeshop.

Julie's came into being in 1981. Prior to that, Mrs. Julie Gandionco, the clan's matriarch who started it all, toiled hard as a canteen concessionaire of a large factory in Cebu that employed thousands. If you run the canteen of such a huge company serving thousands of hungry employees, one can imagine the volume of cooked food that comes out of Julie's kitchen, day in and day out, from morning to afternoon. Even the bread that she served in the canteen accounted for a big volume, such that she had to farm out her daily orders to many small bakeries just to keep up with her daily bread allocation. In one of these bakeries, one of the employees, a baker himself, remarked on how big her volume of daily bread needs was, and shouldn't she just consider putting up her own bakeshop instead of giving the business to others?

According to *Bien*, *Julie* herself loved to cook, which is essentially why she chose the canteen business to start with, but she didn't know a thing about baking. She was hesitant to go into the bakery business, until the baker himself offered: *Why don't you just get me to bake for you and you can open your own bakeshop?*

That was in 1981, and *Julie's Bakeshop* opened in Wireless, Mandaue in Cebu. It was an immediate hit, and not too long after, a second branch opened in Urgello St., and the chain of bakeshops was well on its way. In 1988, the first *Julie's Bake Shop* opened outside of Cebu, in Iloilo City. All these stores were family-owned, (some with partners) a testament to how hard-working the family was and how the driven matriarch ruled by example. Here was a housewife/mother-turned-businesswoman who did not have fancy educational credits to her name, no *masteral* or PhDs to speak of, just a lot of perseverance, hard work and good business sense. Thirty two years later, *Julie's Bakeshop* is the largest chain of bake shops in the Philippines. In this country where there is a bakeshop in every corner in every community, this is no mean feat.

It was in 1998 that *Julie's* decided to venture into franchising. As *Bien* says, the company had to move on, they had to step up. They could afford to be passive; they had to bedynamic all the way. Embracing the franchising concept fully, back in the late '90s when the concept had not really caught on with *Filipinos*, *Julie's Bake Shop* now has 500 stores nationwide, an amazing feat indeed for a lady who

didn't even know how to bake when she opened her first bakeshop in Mandaue.

This country has no dearth of bakeshops, and as an American friend commented, how can these neighborhood bakeshops earn when there seems to be one in every corner? The first *Julie's Bakeshop* in Cebu was not big, *Bien* recalls that it must have been around 70 sq. meters which housed the bakery, the sales counter and a small snack area. This set-up continues to be the typical set-up of *Julie's*, and all their stores are located in neighborhoods, which makes a lot of sense because that is precisely their market. *Julie's* positions itself as a neighborhood bakery, and they have shunned the malls to this day. They pioneered the concept of a visible production area where bread is baked fresh on an hourly basis, and this seems to be their best selling proposition. The small snack area is for the neighborhood mainstays who like to eat their bread warm from the oven, no frills of a fancy sandwich with lettuce, just gulped down plainly with a cold drink. That tops the list of the small joys for many folks.

Now, *Julie's* has 130 franchises spread over 500 stores across the land. If the math doesn't add up, it is because many of the franchisees have multiple stores, some owning 10 to 15 stores. That is also testament to how viable the business is. They have also stepped up the business even further, they have just gone international. The first store outside the Philippines is set to open in the 4th week of September in *Tangara*, a city just outside Jakarta in Indonesia. They met up with a *Filipino* businessman there who has been living in Indonesia for 30 years now and is, essentially more *Indonesian* than *Filipino*. They are, of course, looking at other *Asian* countries where there is a large concentration of *Filipinos* who grew up with *Julie's* breads. In a survey among *Filipinos* residing abroad, many of them yearned for *Julie's* products and wanted one right in their neighborhood.

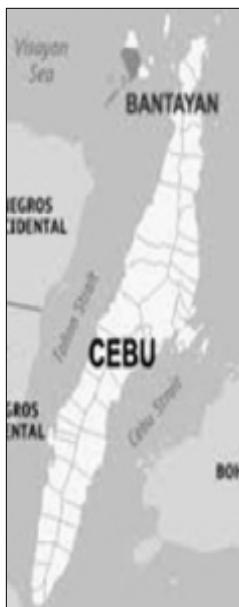
To be sure, some of *Julie's* bread products will have to be tweaked to cater to the local markets abroad. After all, they are targeting not only the *Filipinos* living in those countries but the mainstream residents as well. In the meantime, *Julie's* R&D continues to be strong. New products will still have to be developed. *Bien* also tells us that, like a good corporate citizen, *Julie's* corporate social responsibility likewise continues to grow through their feeding programs. For them, *Julie's* is more than just baking bread, it is baking bread to feed people. Together with their domestic expansion, their global expansion will take hold in the next few years.

Instructions to Teacher: **Teaching Proper**

Mabuhay!!! Be proud to be a Filipino.

1. The class reads the following account on danggit or rabbit fish:

Danggit Dried Fish: Bantayan Island, Cebu



Danggit or Rabbit Fish is a well-known *buwad* or dried fish in Bantayan Island, Province of Cebu, and is usually served for breakfast. Deep fried *danggit* is best paired with eggs and fried rice. It is also makes a good side dish for lunch and dinner.

Before, there were 3 sizes for the dried *danggit*: small, medium, and large. But in order to protect the dwindling *danggit* population, there was an agreement between fishermen to only catch the mature *danggit* and leave the small ones alone or bring them back to sea once caught.

The medium-sized fish are usually used for the marinated version of *danggit* while the large sized fish are used in the making of the salted variety. The medium sized *danggit* is around 2 to 3 inches in length and is very crunchy when deep fried. You can eat almost everything in medium sized *danggit* even the head and bones, these parts are usually eaten in large sized dried *danggit*.

(https://www.google.com.ph/?gws_rd=ssl#q=danggit+in+bantayan+island%2C+cebu)

2. Teacher discusses the different ways of preserving the danggit using drying and salting method.

FISH PRESERVATION THROUGH SALTING & DRYING

Our country, the Philippines, is surrounded by fishing grounds. Fisher folks almost always enjoy abundant catch, but because fresh fish spoil easily, they need to be processed and preserved. Preserved fish products serve as alternative to fresh fish especially when there is scarcity of supply. Fish processing includes steps and procedures to preserve and improve the quality of fish products.

One of the most popular methods to preserved fish is through **canning**; the very evident products are **tuna** and **sardines** that are mostly consumed by many people nowadays. In canning, fish sealed in an airtight container such as a sealed tin can, and subjected to heat. Canning is a method of preserving food, and provides a typical shelf life ranging from one to five years.

On the other hand, there is also a practical way of preserving fish, and that is what we called **salting** and **drying**. It is a method of fish preservation using dry edible salt and expose to the heat of the sunlight. It is related to pickling (preparing food with brine, that is, salty water) and is one form of curing. It is one of the oldest methods of preserving food, and two historically significant salt-cured foods are salted fish (usually dried and salted cod or salted herring) and salt-cured meat (such as bacon). Salting is used because most bacteria, fungi and other potentially pathogenic organisms cannot survive in a highly salty environment, due to the hypertonic nature of salt. Any living cell in such an environment will become dehydrated through osmosis and die or become temporarily inactivated. It was discovered in the 19th century that salt mixed with nitrites (saltpetre) would color meats red, rather than grey, and consumers at that time then strongly preferred the red-colored meat. The food hence preserved stays healthy and fresh for days avoiding bacterial decay.

Fish preservation by drying is a way of preserving fish by removing water from its body through heating them. This system is very popular and about all types of fish can be preserved by drying. Sunlight, solar dryer, oven etc. are used for preservation of fish. Generally a huge amount of fish caught from the inland water reservoir like pond, bill, stream etc. If it becomes not possible to consume or sell all fish then drying is a suitable way for preserving. Fish collected from sea needs to be preserved by drying. Preservation is also needed in such places where there is poor or no transportation system. Fish is very fast rotting being.

So, drying is a must to keep them free from rotting. Drying fish has a great demand in the market. It also helps to meet up the fish or protein demand. Nowadays drying fish is also being used as nutritious protein food for poultry. Dried fish stays for a long time. As the drying weight is less so, it costs less while transporting.

(https://en.wikipedia.org/wiki/Fish_preservation)

3. Let the students follow the procedures of salting and drying danggit. (Hands-on Activity)
 - 3.1 Inform the students to prepare the ingredients and tools to be used for processing.
 - 3.2 Demonstrate every step of the procedures and let the students apply what they observed.
 - 3.3 Remind all students of safety measures when slicing the fish and removing its spines.

All activities involving knives and other potentially lethal objects must be done according to high levels of precaution.

PROCEDURES FOR SALTING & DRYING OF DANGGIT

1. Partially fillet the fish without taking off an entire side.
2. Certain entrails were set aside on the table while other undesirable bits were thrown to the garbage pail.
3. Neatly separate the bones, leaving a nicely cleaned, spineless (boneless) fish.
4. The boneless fish are then readied for a rinse and light salting before being dried.
5. Expose the boneless/spineless danggit under the extreme hot rays of the sun at least one hour or more until it will be dried.

GUIDE QUESTIONS

1. What is danggit or rabbit fish? What are its characteristics?
2. Have you tried eating danggit or dried fish?
3. What are the reasons behind why this dried fish is popular to many people?
4. What are the secrets to maintain its delicious taste and crunchiness?
5. How can the taste of this fish last long?

BASAK ELEMENTARY SCHOOL

Basak, Mandaue City, Cebu

H.E.L.E 4/ E.P.P 4

Worksheet 1: SIMPLE RECALL

Name: _____ Grade & Section: _____

A. Identify the following statements that are associated with *danggit* and Dried Fish. Choose the correct answers from the box and write it on the space provided before the number.

Drying
Salting
Rabbit Fish
Bantayan Island
Heat of the Sun

- _____ 1. What island in Cebu Province is *danggit* most well-known?
_____ 2. Another name for *danggit*.
_____ 3. _____ What are the two basic methods of
_____ 4. _____ preserving *danggit*?
_____ 5. What should you expose this fish to for drying?

B. Rearrange the sentences below to arrive at the correct order of procedures for drying and preserving *danggit*. Write your answer on the blanks below.

1. Certain entrails were set aside on the table while other undesirable bits were flicked off the table to a waiting garbage pail.
2. Partially fillet the fish without taking off an entire side.
3. Expose the boneless/spineless *danggit* under the extreme hot rays of the sun at least one hour or more until it will be dried.
4. Neatly separate the bones, leaving a nice cleaned, spineless (boneless) fish.
5. The boneless fish are then readied for a rinse and light salting before being dried.

1. _____
2. _____
3. _____
4. _____
5. _____

ASSIGNMENT:

Research on the retail prices of danggit in public markets and supermarkets. Compare their prices by tabulating how much they retail per pack and how much it costs per gram. Write your data on the table.

DANGGIT DRIED FISH RETAIL PRICES		
MARKETS/PASALUBONG CENTERS	PRICE PER PACK	PRICES PER GRAM
1. Taboan Public Market		
2. Carbon Public Market		
3. Mandaue City Public Market		
4. SM Supermarket		
5. Shamrock "Pasalubong" Market		

2nd Day (Science, Math, AP, MAPEH and Fil./Eng. Integrated)

OBJECTIVES:

At the end of the 2nd day session, students are expected to:

Knowledge:

- a. Estimate the gross expenses, net profit and return of investment of dried mangoes
- b. Describe the characteristics of dried mangoes.

Skill:

- a. Discuss the procedures of preserving mangoes using drying and sugaring method.

Competencies:

- a. Apply the ingredients for processing dried mangoes.
- b. Demonstrate the process of presenting and marketing products, and arranging them properly for display in a shop or store.

ACTIVITY 3

1. Show pictures and/or actual dried mangoes.



Instructions to Teacher: **Teaching Proper**

1. Describe the characteristics of Dried Mangoes.



PRESERVING MANGOES IN GUADALUPE, CEBU CITY

Preserving fruits is a way of preventing the growth of microorganisms as well as slowing the oxidation of fats that cause rancidity. Fruit preservation may also include processes that inhibit visual deterioration, such as the enzymatic browning reaction after they are cut during food preparation. The most common method of preserving fruits is through fruit jam. The best well-known example of fruit jam is the “**strawberry jam**” that involves boiling to reduce the fruit’s moisture content and to kill bacteria. Also include in the process is the use of sugar as preservative. It must be stored in a glass container and sealed tightly.

There is also a typical way of preserving fruits, using drying and sugaring method. This is commonly applied in mango fruits, and the product is what we called “**dried mango**”. In Cebu, it is well-known for its very delicious and tasty which is one of the favorite “pasalubong” fruit snacks of Filipinos here and abroad. In **Guadalupe, Cebu City, Philippines** has the sweetest mangoes and without a doubt, the best tasting dried mangoes in the world!

These dried mangoes have a sweet, non-acidic flavor, lush, sweet, tasty, rich in vitamins, and a healthy alternative to sugary snack. Dried mangoes can be eaten as a snack and dessert or used as ingredients for ice cream mixes and toppings. Mangoes are a very valuable fruit. They are both very important for providing adequate energy in times of food shortage and also for vitamins, especially Vitamin A.

By preserving the fruit, the benefits from mangoes can be extended throughout a longer period, and the products are easier to sell. Drying of mangoes can make use of the energy in the fructose at a time when food is short. When there are many mangoes they are difficult to sell so many are wasted. If they are dried, they can be eaten later. For selling dried mangoes need to look good, but for home or local consumption this is not so important. Simple drying of mangoes is not difficult.

(<http://www.cebuetourism.techcellar.net/dried-mangoes/>)

2. Enumerate the ingredients used in the production of dried mangoes.

<p style="text-align: center;">DRIED MANGO RECIPE</p> <p>Ingredients:</p> <ul style="list-style-type: none">- 10 kilograms firm ripe mangoes- 1800 grams refined sugar- 4 Litres purified drinking water- 10 grams sodium metabisulfite (preservative)
--

3. Explain the procedures in processing dried mangoes.

PROCEDURES IN MAKING DRIED MANGOES

1. Wash mangoes thoroughly. Peel using stainless steel peeler.
2. Slice diagonally about 5/16 of an inch thick.
3. Prepare syrup by mixing sugar, water and sodium metabisulfite.
4. Heat the syrup then add the mango slices. Heat until 90 degree Celsius.
5. Soak mangoes in syrup for 6 hours overnight.
6. Drain the mangoes from the syrup.
7. Spread on trays and dry at 45-55 degree Celsius for at least 18 hours.
8. Sweat in cheesecloth overnight.
9. Pack in polyethylene bags and seal.

GUIDE QUESTIONS

1. How would you describe the mango fruit?
2. How would appreciate the taste of a mango fruit if it is ripe? If it is raw?
3. What should be done to avoid spoiling the mango?
4. Since mangoes are seasonal fruits, how can one enjoy its flavor when it is not in season?

ACTIVITY 4

Title:	“ARTISTIC ARRANGEMENT, CONVINCING PRESENTATION and MARKETING of PRODUCTS”
Time:	50 minutes
Strategy:	Creative Presentation, Role Playing, and Group work
Type of Activity:	Small Groups
Type of Assesment:	Formative Assessment
Level of Assesment:	Understanding and Application

Instructions to Teacher:

1. Divide the class into 5 groups.
2. Give them 20 minutes to conceptualize and plan (a) separate package designs for danggit and dried mangoes, and (b) how they are to be arranged or organized in conventional displays found in Supermarkets

and *Pasalubong* Centers. Explain to the students the following criteria:

- a. The net content weight of each package
- b. The requirements of the people who will buy them (easy to put in the bag lightweight, etc.)
- c. How the packages and decor should be low cost but still capture the culture and identity of Cebu
- d. If they have time, they can compose a jingle for at least one of the products to convince people to buy. If not, they should at least come up with a catchy slogan for both products.

3. Give each group 3-5 minutes to present their output in class.

GUIDE QUESTIONS

1. How does packaging help in increasing the value of locally manufactured products?
2. What other processes are there in selling the finished products from the factory then distributed to many consumers?
3. Why do people love to buy danggit and dried mangoes as pasalubong?
4. Why is it important to store the danggit and dried mangoes in sealed plastic containers?
5. How important is sugar for preserving dried mangoes?

BASAK ELEMENTARY SCHOOL

Basak, Mandaue City, Cebu

H.E.L.E 4/ E.P.P 4

CREATIVE ARTS & VISUAL ARTS

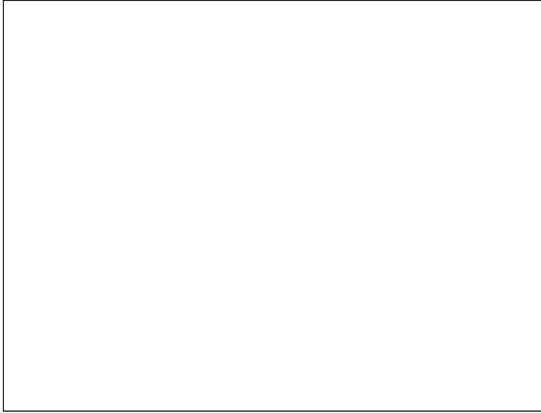
Group Members

Grade & Section: _____

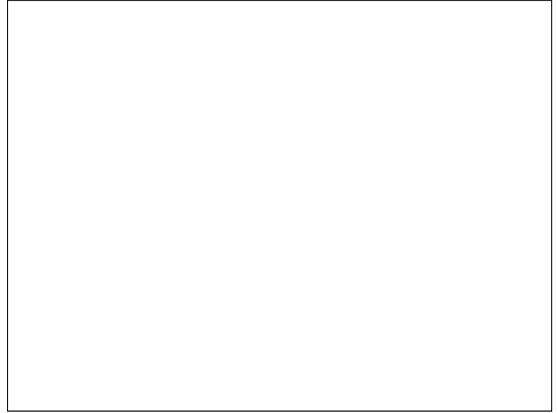
1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

Draw the intended package design you have for the danggit and dried mangoes on the space provided below. Indicate the dimensions of their respective packages and important design choices.

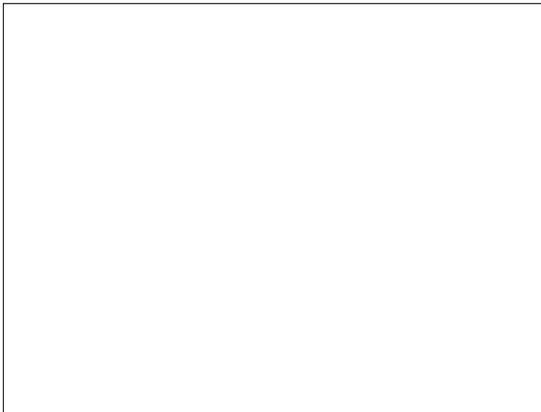
Plan your display. How will they be arranged in a shop, grocery, in the airport? Remember, these products are competing for space and attention in very crowded places. Efficient planning will not only attract potential customers, they will also allow you to stock up on more products. On the spaces provided, draw at least four 2D sketches of how you want the intended place to look. Don't forget to label each box with the specific store you have in mind.



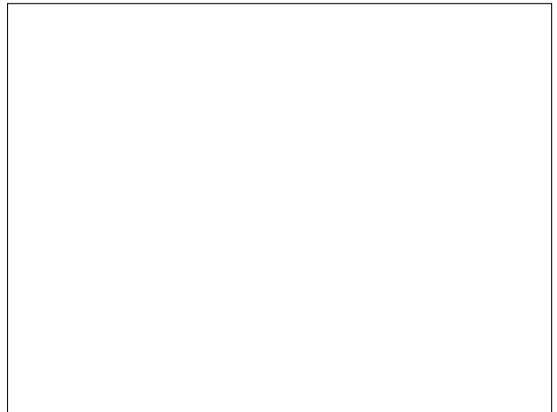
Location: _____



Location: _____



Location: _____



Location: _____

Write your slogan for each of the products on the space provided. If you are able to write a jingle, even better. The jingle does not have to be long as most advertisements last only 30 seconds. Use a separate sheet if needed.

SLOGAN FOR DANGGIT

SLOGAN FOR DRIED MANGOES

COMMENTS: _____

ASSIGNMENT:

1. Make a mock-up of the packaging for both the danggit and dried mangoes. They should reflect the original dimensions indicated in the design you submitted. Fill each of them with danggit and dried mangoes respectively and seal them properly. On a piece of paper, don't forget to write the names of the members of the group before stapling or clipping them to both package designs you have created.
2. Make an advertising video of either the dried mangoes or danggit for TV. Because it will be played on TV, advertising costs are at a premium so make sure that the ad does not run longer than 30 seconds. If video recording and editing devices are unavailable, create a 30 second spot for a radio ad instead. You don't have to record this, you can play it out live in the classroom.

3rd Day (Science, Math, AP, MAPEH and Fil./Eng. Integrated)

OBJECTIVES:

At the end of the 3rd day session, students are expected to:

Knowledge:

- a. Feature the place from where *masareal* is manufactured. (AP)
- b. Describe the characteristics of *masareal*. (English/Filipino)
- c. Identify the mixtures of *masareal*. (Science)
- d. Enumerate the nutrients that can be found in *masareal*. (Health)

Skill:

- a. Investigate the economic status of people involved in manufacturing *masareal*.
- b. Explain the methods and processes of preserving the product.
- c. Sell the product through creative presentations in advertising, and composing and singing a jingle song.
- d. Evaluate the best possible development of business according to profitability and sustainability.

Competencies:

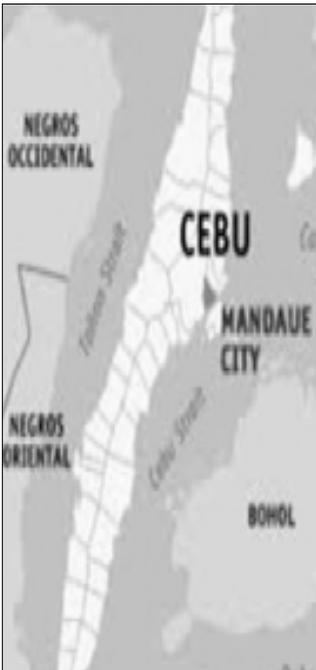
- a. Apply the performing ability on how to utilize the ingredients in processing the *masareal*
- b. Predict production output based on the different quantities and qualities of the product.
- c. Demonstrate design capabilities through presenting and marketing *masareal*.
- d. Calculate the estimated overall income of the product in 4 weeks or 1 month.

ACTIVITY 5

Title:	“MASAREAL PRODUCTION USING PEANUT AND SUGAR AS PRESERVATIVE”
Time:	50 minutes
Strategy:	Brainstorming, Creative Thinking and Cooperative Learning
Type of Activity:	GROUP WORK
Type of Assessment:	Summative Assessment
Level of Assessment:	Understanding, Knowledge and Skills

Instructions to Teacher:

1. Divide the class into 5 groups
2. State the characteristics of the product, where and how it was manufactured, and the economic status of the company and the people working with company.

	<p style="text-align: center;">“MASAREAL AND ITS PRODUCTIONS IN MANDAUE CITY, CEBU”</p> <p>Peanuts can also be considered as perishable goods. People think of many different ideas on how to store it for a longer period of time, and the ideal way is to undergo methods of preservation. One common example is the manufacturing of “peanut butter” which is usually consumed as sandwich spreads. Peanuts crushed into tiny pieces and mixed with sugar as preservative. It must be store in glass jar and sealed securely.</p> <p>There is also a unique preservation of peanuts; it is the production of masareal. This is very popular delicacy of Cebu which has originated in the city of Mandaue. Its pieces are in a form of rectangular bars and are grouped and packed in paper. The packing in paper, then it is being secured by using a piece of plastic twine or string.</p> <p>The ingredients of masareal include the peanuts, which are finely ground, and sugar syrup. Together, they are mixed to create a sweet and delicious mouth-watering delight. A bar of masareal is a favorite among kids. Even adults want it. This is especially true of our balikbayans.</p> <p>The most popular masareal comes from a family enterprise in Doña Rosario Village in Mandaue City, Cebu. Interestingly, the masareal today has adapted new changes and innovations, including its new shapes and sizes.</p>
	

(<http://www.choosephilippines.com/eat/local-flavors/509/masareal/>)

3. Discuss the procedures and ingredients of the product and the method of preservation in processing.

<p>SPECIAL MASAREAL</p> <p>Ingredients:</p> <ol style="list-style-type: none"> 1. 1 kilogram of peanuts 2. 1 cup of sugar 3. 1 cup water (250 ml.) 4. 1 bottle syrup (100 ml.) 	<p>PROCEDURE:</p> <ol style="list-style-type: none"> 1. Boil unshelled peanuts in water. When done, cool. Shell and grind the peanuts fine. 2. Prepare syrup of 1 cup white sugar and 1 cup water. 3. Before the syrup thickens, add the ground peanuts, and keep on stirring until thick. 4. Remove from fire, and pour over a thin baking sheet. 5. Flatten the surface. Cut into 1 inch by 5 inches rectangular strips. 6. Wrap each piece in white paper, if desired.
<p>PEANUTS PRESERVATION</p> <p>Processed before storage: processing peanuts before the preservation of three main stages: sorting, drying and cleaning.</p> <p>1. Sort: after harvesting beans, peanuts should be distributed according to breed, type, color, grain size, the quality of shipments to be uniform, insect-infected seeds to separate. Dried peanuts or dried by sun exposure.</p>	<p>To dry beans, peanut field distribution must be dry, clean and be exposed to hot temperatures on the field reached 25°C-20 started conducting dry seeds. However to the sun, drying temperature is too high to collect particles in shade to prevent flow of oil, and exfoliate skin dark. Sun exposure not only for nuts but works after prevention.</p> <p>Drying: Drying equipment to meet the technical criteria mainly the following: drying temperature not exceeding 70 degree celsius, grain drying temperature not exceeding 50oC. When using the device for drying peanuts to prevent interested phenomena millers, bordering crushed seeds, silk peel skin, dark skin color. Peanut is a seed oil, so the process of drying, drying need to note the temperature is not higher than, storage for oil are not metamorphic, causing rancid infamous and change content as well as quality fat particles, it is often dried at temperatures up 60 degree Celsius.</p> <p><i>(http://kibaco.com.vn/default.asp?id_news_dt=81&language=2)</i></p>

4. Tell the students to prepare a written report and a creative presentation consisting of visual aides to accompany their report and suggestions on packaging, and store arrangement similar to the previous exercise on the danggit and dried mangoes. Let them think of a creative arrangement of presenting the finished products and the practice of composing a jingle for advertising the product.

5. The written report should show the following:

PRODUCTION OF MASAREAL AND INCOME ESTIMATION IN 4 WEEKS OR ONE MONTH			
INGREDIENT	CAPITAL	WEEKLY INCOME	PROFIT
1 kilograms of peanuts 1 cup of sugar 1 cup water (250 ml.) 1 bottle syrup (100 ml.)	1 st Week Php_____	1 st Week Php_____	1 st Week Php_____
2 kilograms of peanuts 2 cup of sugar 2 cup water (250 ml.) 2 bottle syrup (100 ml.)	2 nd Week Php_____	2 nd Week Php_____	2 nd Week Php_____
3 kilograms of peanuts 3 cup of sugar 3 cup water (250 ml.) 3 bottle syrup (100 ml.)	3 rd Week Php_____	3 rd Week Php_____	3 rd Week Php_____
4 kilograms of peanuts 4 cup of sugar 4 cup water (250 ml.) 4 bottle syrup (100 ml.)	4 th Week Php_____	4 th Week Php_____	4 th Week Php_____
	Total:_____	Total:_____	Total:_____

COMMENTS:

BASAK ELEMENTARY SCHOOL

Basak, Mandaue City, Cebu

H.E.L.E 4/ E.P.P 4 PERFORMING ARTS

Group Members

Grade & Section: _____

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____

With prior knowledge acquired during the discussions of making masareal, the students are requested to perform the process with less supervision.

1. Write the ingredients and utensils to be used for processing the masareal.

A. Ingredients	B. Utensils
1.	1.
2.	2.
3.	3.
4.	4.

2. Write the procedures on how to process the products.

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

Attach the pictures of your outputs here.

1	2	3	4	5
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POST EVALUATION:

1. Creativity (25%) _____
2. Punctuality (25%) _____
3. Accuracy (25%) _____
4. Cleanliness (25%) _____
- Total: (100%) _____

ASSIGNMENT:

Make a Project Plan of your Finished Product.

Name: _____
School: _____
Subject: _____

Grade & Section: _____
Date: _____
Teacher: _____

I - Name of the Project: “PRODUCTION OF MASAREAL AND METHODS OF PRESERVING PEANUTS”

II - Purpose of the Project: (What do you want to achieve in making this project) _____

1. _____
2. _____
3. _____
4. _____
5. _____

III - Drawing/Sketch of the Project:(Different shapes, sizes, and colors of finished products)

1	2	3	4	5
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IV - Materials Needed: (Includes the quantity, cost of ingredients and specification of each material.)

NAME OF ITEM	QUANTITY	UNIT	PRICE	TOTAL
peanuts	2	kilogram	200	400
sugar	1	kilogram	56	56
syrup	1	milliliter	44	44
water	4	milliliter	16	60
	Total: 8		Total: 315	Total: 550

V - Tools & Equipment Needed

1. _____
2. _____
3. _____
4. _____
5. _____

VI - Procedures in Doing the Project

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____

VII - Evaluation of the Project: (Assessment using rubrics)

- 1. Creativity (25%) _____
- 2. Punctuality (25%) _____
- 3. Accuracy (25%) _____
- 4. Cleanliness (25%) _____
- Total: (100%) _____

VIII - Suggestions/Recommendations:
