

I am what I eat

(The title should generate curiosity to know more about the expedition both among the children and educators. It should capture the essence of the expedition.)

Expedition Summary:

In this expedition students will experience and understand how the food they eat is important for their health and well-being. They will witness the joy of growing and cooking their own natural healthy food as part of real life experiences at a farm. Working closely with farmers, students will come across their life and culture and would understand their aspirations and struggles through interaction. By differentiating between different methods of producing food and food systems they will see how environment, the life of producer and health of consumer are closely linked. Students will see the relevance of locally produced natural food on all these three aspects. Conducting a survey, students will inquire into the challenges and aspirations of acquiring organic food for their families. Through the theme of nutrition students will learn about food components, deficiency diseases and the need to have a balanced diet. The expedition will culminate into students initiating the community supported agriculture in Gurgaon -they will connect local farmers to their families. The idea is to start an alternate food system in the city which is local, natural and beneficial for all.

Grade level	Timeframe	Date of creation or revision
Grade 5	3 to 4 months	

Principles underlying the Expedition Designing

Designing an expedition is a creative discipline. It demands lot of rigour both at the thinking and doing levels. It involves mapping, making connections, planning, implementation, reviewing and documentation.

The big idea behind designing an expedition is to keep a track of how it evolves with each planning draft –important is to keep working on it. It takes minimum three years for an expedition to be effective and focused. The design framework helps educators to document each draft of the expedition plan and thus provides structure and space to make their thinking and understanding visible to self and others. It sets the context for shared learning and working together.

Some of the designing principles are:

1. Planning is important and not the plan. The idea is to continuously keep reviewing and modifying the plan and not to get stuck with a plan.
2. Planning is not a sequential process. There is lot of back and forth in the planning process. The structure or framework is to assist educators in initial phases of the expedition and thereafter, educators need to restructure it depending on the context, children's need and the flow inside the classroom.
3. Planning is a learning process. It helps us to make our thinking visible, which enables us to review our plans and others to share their thoughts on it. We can review what happened in the expedition vis-a-vis what we had planned, which is an important source of learning.

Big Idea behind the Expedition

(It is the enduring understanding that we would like to develop in students, which will remain with them for the years to come.)

- a. How food is grown, marketed and cooked has an impact on our health, well-being and the way of living
- b. A local and natural food system leads to environmental, economic, social and nutritional health for all

Guiding Questions for the Expedition

(Guiding questions are generated from the big idea. They give direction, focus and set the boundary for the expedition. We should not have more than 2/3 guiding questions. Projects, case studies, research, activities, etc. in the expedition should help us in figuring out the guiding questions.)

1. How is healthy and organic food grown?
2. What is it like to be a farmer in today's society?
3. How does the food reaches to my family kitchen?
4. What must I eat and how should I cook to stay healthy?

Focus of the Expedition

(Subjects, specific concepts and understanding, skills and values to be addressed in the expedition)

Subjects	Concepts/Understanding	Skills	Values
Social science	<ul style="list-style-type: none"> • The historical evolution of agriculture • Farming- Conventional vs natural • Effect of pesticides/fertilizers on soil, water and the environment • Understanding the processes of natural farming • Life of a farmer-present challenges and opportunities • Food systems-Local v/s Industrial- its impact on us. 	Critical thinking Systems thinking Working with farming tools	Respect for nature Dignity of labour Consciousness about one's health
Science	<ul style="list-style-type: none"> • Components of food • Sources of food • Balanced diet • Deficiency diseases • Preservation of food 	Reasoning with scientific evidence	

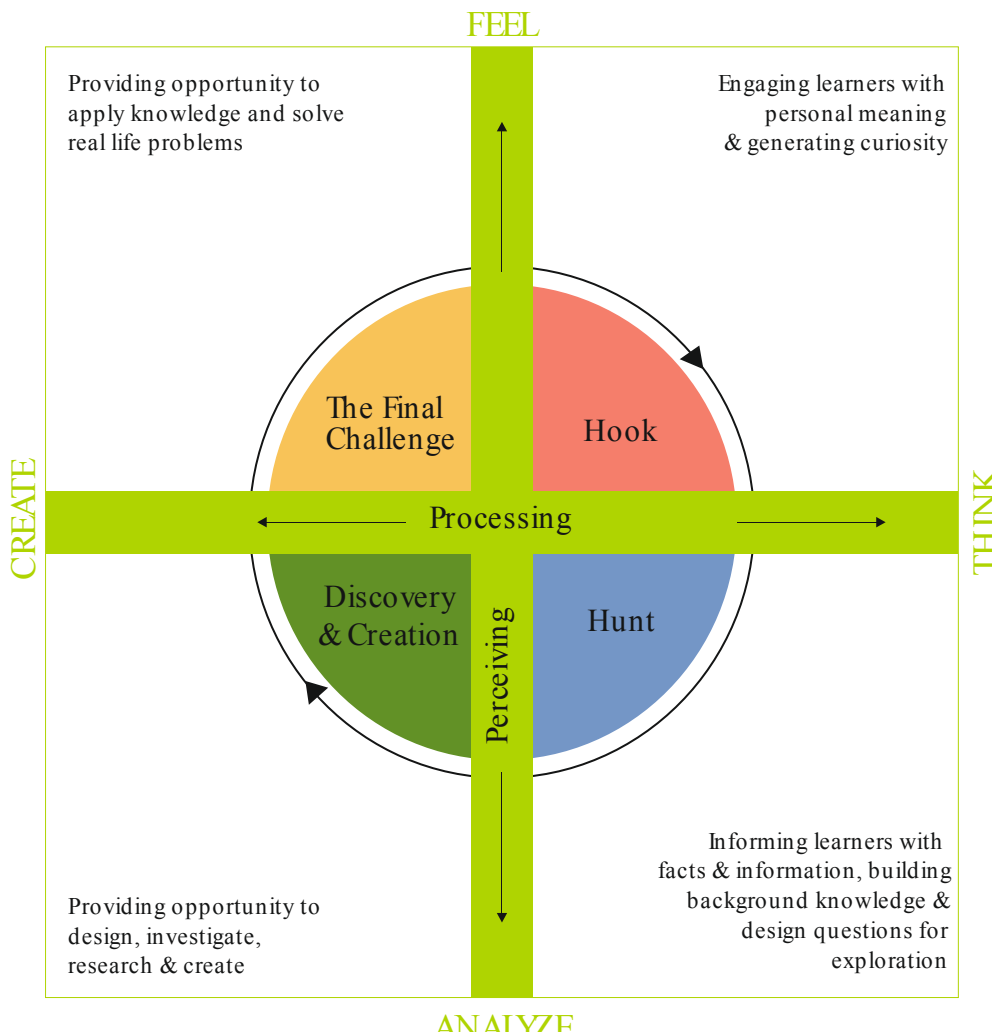
Language	Reading for comprehension	Comprehension- identifying difference between what a text says explicitly and what it implies Drawing logical Inferences	Respecting other's perspective even if I disagree with him/her
Craftsma nship	Growing a crop Cooking balanced meals	Working with hands/Self reliance	Dignity of labour

The Learning Targets

Learning Targets to be addressed in the Expedition are

Subjects	Learning Targets
Science and Technology	
Social Science	
Reading	
Writing	
Maths	
Visual and performing arts	
Craftsmanship	
Character and culture	
Specific Skills	

The Expedition Design Framework



The Hook

A compelling experience from the local context of the child that engages and sparks curiosity in children for the exploration.

The Hunt (Building Background Knowledge)

Critical discussions that let the child seek out important facts, knowledge and more importantly the questions that she wants to inquire further. It is about building the background knowledge for the expedition.

Projects (Discovery & Creation)

Hands on exploratory projects with opportunities to design, investigate, research & create in the local context of the child that will build the required understanding and skills.

The Final Challenge

An integrated experience that lets the child apply the new found knowledge and understanding to real life problem solving or creation.

The Hook

(As the name itself suggests, the 'hook' should be able to create the curiosity and excitement in children for the expedition. The idea is to prepare children for the expedition. The hook should be crisp and engaging for the students. It is imperative that educators have the desired inquiry questions in mind while they design the hook. Often a hook, which by itself is extremely exciting and engaging, can be fruitless if it doesn't lead the children to the desired questions of inquiry and exploration.)

The hook will focus on:

- Baking your own organic bread:

This activity would involve baking of bread using indigenous and organic grain like whole wheat and replacing industrially produced sugar with alternatives like *gur* and honey. Students can be given a chance to select ingredients of their choice (Raisins, oatmeal, almond) to create something of their own.

Students will compare ingredients and process of their organic bread with packaged bread from market and see how it looks, smells and tastes different. (Cost, nutritional value can also be compared)

Reflection on two ideas-

Mindfulness- Raising questions on why the choice of ingredients like whole wheat, honey and not *maida* and sugar. Being aware of what is healthy/unhealthy and why. This will culminate into the idea of how 'I am what I eat'

Satisfaction-The kitchen offers opportunities to express your creativity and find your flow. The idea will be to understand the joy of one's creation while experiencing the process of baking a bread...

Can we have a video on the importance of food and cooking in our lives, how food and cooking got evolved overtime and their impact on our lives...the case study of a delicious platter of joy in the video form.

Building Background Knowledge (BBK)

(Building Background Knowledge is a protocol through which students become interested to explore the different topics of the expedition, build background knowledge and use this background knowledge to become better and more informed about the expedition. The design of the BBK enables students to quickly engage with the topic and raise questions to further deepen their understanding. The hunt should be short and focused and should help in expanding students' perspective of the big idea by exposing them to diverse aspects, views and theories behind the expedition. This model of building background knowledge adapts easily to content in many disciplines and the design of the workshop ensures that all students read, think and contribute. It is particularly useful in introducing the expedition because it fosters curiosity.)

BBK Design

1. Visit to National Agricultural Science Museum:

- Timeline of the history of agriculture-

-A walk through the galleries of the Museum aimed at enabling students to understand how agriculture was the basis that led to the emergence of cities and civilization:

Shift from hunting gathering to agriculture led to sedentary lifestyle. This transition generated new needs like storage, grinding, iron smelting thus giving rise to specialization of activities and professions. The diversification led to exchange and trade further creating systems of recording, law and order.

-There will be a focus on linking the ways agriculture shaped history and how various historical contexts changed agriculture. The objective will be to highlight the history and journey of grain/fruit/vegetable available to us today.

For this, the influence of voyages of exploration and industrialisation will be assessed.

(Activities, worksheets and Consolidation needs to be planned)

2. Satyamav jayat documentary
3. Expert text on different aspects of food, farming and food systems...both highlighting problems and positive solutions
 1. Pudukkottai: A pesticide-free village
 2. Enabavi -Organic cultivation -learning from the Enabavi example

4. Finalising the Questions of inquiry

The Launch of the Expedition

Tasks	How
What is the plan for the launch?	
What we need to communicate to children? How?	
What we need to communicate to parents? How?	
Who is responsible for what?	

Can we call farmers to the classroom for the launch? Students will share the Expedition overview with the farmers giving them a context of what their role will be in upcoming days..

One farmer can be assigned to each class. The students will interact with the same farmer during Khoj.

Projects (Discovery & Creation)

(It consist of hands on exploratory projects with opportunities to design, investigate, research and create. This is where students do their core inquiry and creation. The aim is to find answers through investigations, experiments, tinkering, research etc. Ideally the students should have a balance of working individually and in groups. Emphasis should be on creating authentic, original and quality work whether it is creating an end product or while working on presenting their findings. For an expedition, we can have 2 to 3 projects depending upon the key concepts and skills that we aim to develop. Each project will have a case study that helps children in building the conceptual understanding of the big idea and key concepts behind the project and making connections across ideas/concepts. The idea is to build a real and engaging context for the project. It also makes the learning targets realistic and tangible.)

Project One

<p>Project Title Farming and Farmers</p>	<p>Big Ideas/Broader concepts</p> <p>How food is grown has a direct impact on environment, life of farmers and our health</p> <p>A local and natural way of farming ensures the benefit of all the three aspects.</p>
<p>Flow:</p> <ul style="list-style-type: none"> • Farming: <ol style="list-style-type: none"> 1. Beginning with the process of growing food – experiencing sowing. Why distance and direction is important. Understanding the principles of photosynthesis while sowing. 2. What is natural farming? how it is different from chemical farming? 3. Difference between natural and organic farming 4. How to conserve the soil? How the processes of natural farming leads to healthy and productive soil? 5. Importance of indigenous seeds in growing healthy crop 	<p>Skills to be developed</p> <ol style="list-style-type: none"> 1. Working with hands/Self-Reliance 2. Working in crews 3. Asking questions and conducting interview 4. Reading for comprehension 5. Drawing connections

<p>6. Understanding how natural farming leads to sustainability, bio-diversity conservation and environmental protection.</p> <p>Life of a Farmer:</p> <ol style="list-style-type: none"> 1. Understanding their life, culture and contribution 2. Understanding their challenges in present day 3. Interaction with conventional and natural farmers to understand their life and struggles closely (KHOJ) 4. Creating the natural Farmer's profiles, their aspirations and challenges... For this, students will be divided into groups and given a strand on the farmer's life to interview: <ul style="list-style-type: none"> -History -Family -Journey from conventional to natural farming -Challenges as a natural farmer -Aspirations for the future 	
<p>Learning targets to be addressed</p> <p>Knowledge from multiple sources to understand the role and status of farmer in our society</p> <p>Understanding the process and effects of Natural farming in our life</p>	
<p>Case study/Documentaries <i>(For setting the conceptual context for the project)</i></p> <p>Seed Tells A Farmer's Story- Text Module on Life of a farmer</p> <p>A documentary movie -Mitti -back to roots</p> <p>Case study- Can we feed ten billion on organic farming alone?</p> <p>Case study- Organic cultivation: learning from the Enabavi example</p>	<p>Citybound – KHOJ at the local natural farm</p>
<p>Experts: Organic and conventional farmers</p>	<p>Final product/performance and the audience <i>(What skills & knowledge will</i></p>

	<p><i>students need to complete this product/performance?)</i></p> <p>-Farm produce for consumption -Profile of natural farmers</p>
Assessment	
Service	

Project Two

<p>Project Title From Farm to Fork</p>	<p>Big Ideas/Broader concepts How food is processed, packaged and marketed has a direct impact on producers, environment and health of consumers</p>
<p>Flow</p> <ul style="list-style-type: none"> • Understanding the Food System: <ul style="list-style-type: none"> -What is a system? -How does food reach our homes through food system -Differentiating between different food systems-Industrial and Local • Understanding the various processes of the Industrial System and their impact <ol style="list-style-type: none"> 1. Processing and preservation: <ul style="list-style-type: none"> -What is Processing and preserving? -Why is it needed? -How is it done in an industrial system? -how does it impact our health? 	<p>Skills to be developed</p> <ol style="list-style-type: none"> 1. Systems thinking 2. Critical Thinking 3. Reading 4. Conducting survey

<p>2. Packaging, marketing and advertising: -Why and how is food advertised in industrial system? -Understanding how food has become a commodity for profit. -Attractive packaging and misleading claims influence consumer choice and health. (Activity on food labels)</p> <p>3. Understanding the shortcomings and failures of industrial system and need and relevance of alternative systems</p> <ul style="list-style-type: none"> • Conducting a Survey of family's procurement of basic food ingredients like flour, pulse, oil, rice to take note of the food systems involved (local produce/industrial packaged). This will make children to inquire about the factors that influence their preference. The survey will further make them inquire into what are their challenges as a family in procuring the food. and also how they can solve the above challenges. 	
<p>Learning targets to be addressed Conducts a systematic analysis of the food system in terms of its impact on the lives of people</p>	
<p>Case study <i>(For setting the conceptual context for the project)</i> Case study on processed juice Case study on Antibiotics in meat-CSE</p> <p>Case study- Food for people, not for profit Case study on Community supported agriculture-CSA What's wrong with our food system (Documentary) Why do we need to change our food system? -UN Environment</p>	<p>Citybound KHOJ at the local natural farm</p>

	<p>Final product/performance and the audience (<i>What skills & knowledge will students need to complete this product/performance?</i>)</p> <p>Survey of families -how the families procure their food?</p>
<p>Assessment</p> <ul style="list-style-type: none"> • Formative Assessment • Summative Assessment 	
<p>Service</p>	

Project Three

<p>Project Title Food and Well being</p>	<p>Big Ideas/Broader concepts</p> <ol style="list-style-type: none"> 1. How we eat and cook our food determines our health and wellbeing 2. A Balanced diet leads to a healthy body, mind and spirit.
<p>Flow: -What do I eat? How healthy is the food that I eat? Maintaining the diet journal</p> <p>-Understanding the different components of food and their functions: Proteins, carbohydrates, fats, minerals, vitamins, water and roughage</p> <p>-Sources of nutrients- from which food can we obtain what</p> <p>-Understanding how the inadequate or excess consumption of any of these component lead to</p> <ol style="list-style-type: none"> 1. Deficiency diseases 2. Malnutrition 3. Obesity <p>-What is a balanced diet and its relevance in maintaining one's well being</p> <p>- Family Food Survey to understand the dietary patterns of family.</p> <p>Learning to prepare balanced healthy snacks at KHOJ</p>	<p>Skills to be developed: Scientific reasoning Conducting survey</p>
<p>Learning targets to be addressed Classifies food items into categories based on the food components present, using data collected by conducting chemical tests</p>	

<p>Case study (<i>For setting the conceptual context for the project</i>) Case study on Junk Food-CSE Case study on Healthy eating</p>	
<p>Experts</p>	<p>Final product/performance and the audience (<i>What skills & knowledge will students need to complete this product/performance?</i>)</p> <p>-Diet plan for the family</p>
<p>Assessment</p>	
<p>Service</p>	

The Final Challenge

(The final challenge should provide an opportunity to children to apply their new found knowledge and understanding in solving real life problems or creating new possibilities leading to performances of understanding.)

Initiating the CSA in our families/city/neighbourhood

The profiles of the natural farmers would be provided to families. Connecting the farmers and families...

Documentary on sustainable farming: The future of food- CSA

Service:

Students will launch an awareness campaign on Community Sustained Agriculture in their neighbourhoods by making posters.

The Expedition Culmination

Tasks	
How are we planning to culminate the expedition?	-Bringing together organic farmers and buyers of the locality -Setting up an alternate food system where producers and consumers directly and mutually benefit
What do we want to communicate to the school, parents community and the society at large?	-Becoming aware of what we eat -Establishment of a direct contact between local organic farmer and society
Who all will be part of the culmination? (Audience)	Parents, local buyers and organic farmers
Who all we want to acknowledge and appreciate?	
Who is responsible for what?	
When? (Timeline)	

Expedition Planning Grid

Months	Week 1	Week 2	Week 3	Week 4

“It’s not the plan that is important, it’s the planning.”

Dr. Gramme Edwards