



NOBODY WANTS TO PLANT....BUT EVERY ONE WANTS TO EAT...

A PROJECT for 11th Grade ISC students

Introduction

"Nobody wants to plant the corn; everybody wants to raid the barn.

In today's world, very few people want to get involved in food production; most people prefer other jobs than farming. This does not bode well for an increasing world's population since everybody needs to eat! So now, you have decided to become a farmer and produce vegetable crops for sale because you know this will bring in the money!

So your land is available for planting and you're all ready to go but how do you start? Which crop type will you plant? What steps do you need to follow to produce your crop? Does your crop need any special care? What factors can affect the success of your crop?



The Scenario

You have been hired by an agricultural cooperative that provides services to member farmers as an expert in your field. At its Annual General Meeting, the membership mandates you and four other hired experts involved in crop production (leafy vegetable, fruit vegetable, root vegetable and cereals) to share their knowledge at the next General Meeting so that the members can benefit from your advice. Each expert on your team will make a presentation based on his or her area of expertise on the production of a named crop. This information has to be pooled into a single presentation.

The Tasks

ROLES ASSIGNED TO THE GROUP

1. **Research scientist**- As a research scientist you have the knowledge and equipment to improve the crop varieties. You have to share your knowledge under the following headings;
 - a. Seed selection
 - b. Seed viability
 - c. New varieties
2. **Agronomist** – as an agronomist you are familiar with the practices involved in growing crops. You are required to share your knowledge of how to grow the crop under the following headings;
 - a. Varieties and cultivars
 - b. Land preparation
 - c. Planting and spacing
 - d. Cultural practices
3. **Plant Pathologist** – having studied plant diseases you are required to share your knowledge of the pests and diseases that affect a the crop under the following headings;
 - a. Name of pest/ disease
 - b. Causative disease agent e.g. bacteria, virus, fungi, nematode etc
 - c. Symptoms of attack / disease
 - d. Prevention
 - e. Treatment
4. **Extension officer** – you are an Extension Officer attached to the Soil Testing and Evaluation Unit of the Ministry of Agriculture. You are asked to share your knowledge on the use of fertilizers for the crop under the following headings;
 - a. Signs of malnutrition
 - b. Determining fertilizing needs
 - c. Determining the amount of fertilizer to use
 - d. Methods of fertilizer application
5. **Post harvest technologist** – As a post harvest technologist you have studied how to harvest crops and how the produce is to be dealt with after harvesting in preparation for market. You are to share your information on harvesting the crop under the following headings;
 - a. Signs of maturity / harvest index
 - b. Method of harvesting
 - c. Post harvest treatment
 - d. Packaging for market

You will be discussing the growing of the crop selected by your group. You will liaise with your fellow experts and produce a digital story that shares your information with the cooperative farmers in such a way that the information is clearly and concisely depicted.

The Process

1. Identify the headings under which you are required to give your expert advice.
2. Prepare a template for collecting information and show it to the teacher. **(14th Oct 2015 Wednesday)**
3. For the crop identified, collect information to complete each heading under your task in the template.
4. Collaborate with your group to pool your information together to present a report on the crop. **(28th Oct 2015 Wednesday)**
5. Decide as a group on which technique of presentation you would use to give your information to the farmers. **(before leaving for Diwali vacation)**
6. Discuss with your teacher if any materials or equipment are required for your presentation. (Presentation dates and hard copy submission will be conveyed to you later)
7. Each one of you will submit a separate document, with details of your part (e.g. Agronomist or plant pathologist) and a brief review of the other members in the group.

Assessment Rubrics

	Beginning 1	Developing 2	Accomplished 3	Excellent 4	Score
Maintains Topic	The topic rambles and does not present much information	Briefly mentions a topic but gives few details	Describes the topic in general	Clearly defines topic with great detail	
Gives information from several of the sites	Does not use any of the information in the sites	Uses only one site	Uses at least two sites	Uses several sites	
Completeness of assignment	Report on crops are not attempted/few topics covered	Less than 50% of the crop topics are presented	75% of the crop topics are presented	All crop topics are presented	
Organisation	No logical sequence of information	Some topics are organised but still does not present a logical sequence	There is a recognisable organisation of topics but some topics are out of sequence	The information is completely organised by crop type and follows a logical sequence	
Clear and Understandable	Very difficult to follow	Mostly difficult to follow and understand	Mostly easy to understand	Easy to read and follow the information	
Correct spelling and grammar	Frequent grammar and spelling errors	A few grammar and spelling errors	One or two grammar or spelling errors	All grammar and spelling are correct	
Aesthetics	Presentation is poorly displayed, lack of formatting, no use of graphics	Presentation uses some graphics, colour and formats	Presentation makes use of graphics, formats and colour but is not properly coordinated	Presentation is very attractive, uses colour, graphics and formats, information catches the eye	
Group work	No group work evident	An attempt is made to work as a group but not to completion of the quest	Group work is evident most of the time	Group work is evident up to presentation	

Hard copy of the project (Biology part only)

1. To be typed and spiral bound.
2. Font to be used- Times New Roman, Font size- 14, Margins 1.5cm on all sides
3. You may use different font or size for headings and sub headings.
4. All pictures have to be genuine clicked by the group member. (Incase a picture is taken from the net, you have to site the source)
5. Minimum 20 pages should not exceed 40 pages.
6. A certificate page will be uploaded that will be attached with the project.
7. The project should include-
 - a. Certificate page
 - b. Index page
 - c. Aim of the project
 - d. Background information of the crop (site source of your information)
 - e. Report of the research (this will include information about all the roles in the group)
 - f. Detailed work on (your specific role)
 - g. Conclusion and reflection (what are views on the project)
 - h. Bibliography

Resources-

These are a few websites that will give you an idea about the project; you can also get ideas for physics and chemistry part of the project.

<http://www.mapsofindia.com/indiaagriculture/>

<http://www.icar.org.in/en/aboutus.htm>

<http://www.archive.india.gov.in/citizen/agriculture/index.php?id=5>

<http://seednet.gov.in/material/IndianSeedSector.htm>

<http://www.agrometeorology.org/topics/new-information-for-agrometeorologists/traditional-practices-by-farmers-to-improve-agricultural-production-2013-indian-experience>

<http://www.gujaratindia.com/initiatives/initiatives.htm?InitiativeId=tIMmUGKPabM4ZapmU62SEw=>

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http://www.iari.res.in/index.php?option=com_content&view=article&id=328&Itemid=1632