

**Secondary Course**

**216 - Home Science**

**Book - 3 - Practical Manual**

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**NATIONAL INSTITUTE OF OPEN SCHOOLING**

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## *A Word With You*

*Dear learner,*

*Home Science offers the learner tremendous scope for life skill development. You must have enjoyed learning about all the skills required to enhance yourself and your surroundings. It is through practical that the learner gets that opportunity to get hands on experiences and develop these skills. Therefore, study of Home Science is incomplete without the support of practical.*

*While studying lessons in Home Science, you must have come across many suggested activities. The performance of these activities, the recording of observation and concluding it to get results will help you strengthen your theoretical knowledge. It will boost your confidence and will enable you to utilize the subject in your everyday life.*

*We are sure you will be able to perform most of the activities yourself. Still, we have designed a Practical Manual for your guidance. In this practical manual we have included the guidelines for performing all these suggested activities. A detailed observation and documentation format has been provided for each activity. Please go through it carefully and record the observation in the manual itself. The manual also consists of alternate practical options suitable for learners with disability. This book carries weightage in the Practical Examination.*

*I hope you enjoy doing these practicals. In case you have any difficulty, do not hesitate to write to me. It would be a pleasure to help you out.*

*Best of luck!*



*Ms. Neha Sharma*

*Senior Executive Officer (AEP)*

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- OR
- \*write the appropriate procedure in the column provided in the given table to remove the following stains.
- Practical 14. a) To wash and finish a Cotton Dupatta /Saree/ Shirt, b) To wash and finish a woollen shawl/cardigan and c) To wash and finish a silk scarf/blouse/dupatta
- Practical 15. To clean the following surfaces
- OR
- \*State appropriate cleansing agents and method of cleaning to clean the following surfaces.
- Practical 16. To observe the communication skills of four children in the following age groups
- Practical 17. To make low cost toy/game using household materials for children.

*\*Note: To be attempted by learners with disability*

## Marking Scheme for Practical Examination

<b>Maximum Marks 15</b>	<b>Time: 2½ hrs.</b>
Practical Manual	3 marks
Practical Examination (Two practicals to be conducted)	8 marks
Viva based on the practicals	4 marks

## PRACTICAL NO: 1

### AIM:

Observe and record the results of cooking any two cereals and two vegetables cooked by different methods.

**OBJECTIVES:** After doing this practical you would be able to :

- know the effects of cooking on food;
- learn the different methods of cooking, and
- identify the methods which minimize nutrient loss.



### MATERIAL REQUIRED:

Two cereals, two vegetables, knife, bowl, cooking utensils -Karahi, Pressure cooker, sauce pan, pot, cooking oil, spices, serving bowls, serving spoon, gas stove, LPG cylinder and ingredients for selected recipes.

### PROCEDURE:

1. Select two cereals and two vegetables.
2. Identify recipes for these food items involving different methods of cooking like cooking by moist heat, dry heat and frying.
3. Get samples of food cooked according to these methods and observe keenly the changes in their colour, texture and flavour. Note the observations in the given table.

### TABLE FOR OBSERVATION:

Food Item	Method of Cooking	Colour		Texture		Flavour	
		Before cooking	After cooking	Before cooking	After cooking	Before cooking	After cooking
1. Cereal.	(a)						
	(b)						
	(c)						ê
2.	(a)						
	(b)						
	(c)						

## Practical Manual

Food Item	Method of Cooking	Colour		Texture		Flavour	
		Before cooking	After cooking	Before cooking	After cooking	Before cooking	After cooking
Vegetable 1.	(a)						
	(b)						
	(c)						ê
2.	(a)						
	(b)						
	(c)						

### PRECAUTIONS:

1. Wash the cereals and vegetables thoroughly.
2. Do not wash the vegetables after cutting.
3. Do not cut vegetables into tiny pieces.
4. Do not overcook the food
5. Use just enough water/oil/heat for cooking.

### CONCLUSION:

Cooking improves the look, flavour and eating quality of food and makes it palatable.

### CRITERIA FOR EVALUATION:

- Food items when cooked in moist heat must preserve their colour and shape as far as possible.
- Food items when cooked in dry heat must have right amount of moisture and crispness.
- Fried food items should be crisp, golden brown and non-greasy.

### RELATED QUESTIONS:

1. What are the various methods for cooking food?
2. Suggest some methods to reduce nutrient loss during preparation and cooking.
3. Why should the vegetables not be cut in to tiny pieces?
4. Why should the vegetables not be washed after cutting?

### A NOTE FOR TUTORS:

1. A learner may be shown a food item cooked through various cooking methods and asked to identify these methods.
2. A learner may be asked to select a cooking method that causes minimum nutrient loss.

**FOR MORE DETAILS:** Refer lesson 4 in book 1 of your learning material.

**PRACTICAL NO: 2**

**AIM:**

To identify fabrics through visual inspection:

- woven fabric and
- knitted fabric.

**OBJECTIVE:** After doing this practical you would be able to identify knitted fabrics and woven fabrics through visual inspection.

**MATERIALS REQUIRED:**

Collect fabric pieces from different sources such as:

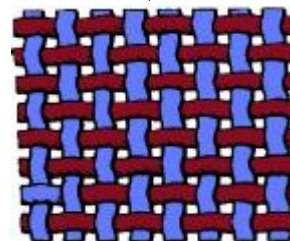
- a) Leftover fabrics at home or from the tailor.
- b) Old banians/T-shirts/socks or sweaters.

**PROCEDURE:**

1. Cut out samples measuring 5cm x 5cm from any of the above sources.
2. Observe the characteristics given in criteria for selection carefully.
3. Select one knitted sample and one woven sample.
4. Paste these samples in the boxes as shown below in your practical file.
5. Record the difference between these samples.

**CRITERIA FOR SELECTION**

<b>Knitted</b>	<b>Woven</b>
Edges are curled up. Tiny inter-connected loops are visible on the surface. Single yarn runs through the fabric.	Edges lie flat. Alternately arranged yarn are visible on the surface. A set of yarns namely warp and weft constitute the fabric.





**TABLE FOR OBSERVATION:**

<b>Woven Sample</b>		<b>Knitted sample</b>	
Stick Sample	Record the Criteria	Stick Sample	Record the Criteria

**RELATED QUESTION:**

1. State two differences between knitted and woven fabrics.
2. List type of weaves.

**A NOTE FOR TUTORS:**

1. A learner may be asked to identify and separate woven / knitted samples from a number of samples.

**FOR MORE DETAILS:** -Refer lesson 10 in book 1 of your learning material.



**PRACTICAL NO: 4**

**AIM:**

To record and study the weekly spending plan of your family.

**OBJECTIVE:** After doing this practical you would be able to

- develop the skill of writing spending plans;
- develop sensitivity towards avoiding wasteful expenditure, and
- suggest modifications in a spending plan in case of emergencies.

**MATERIALS REQUIRED:**

Pen, Notebook, Paper, and Pencil

**PROCEDURE:**

1. Use the following heads to make the spending plan.
2. Enter expenditure incurred daily under each head.
3. Total it at the end of the month.

ITEMS ↓ Days →	EXPENDITURE – WEEKLY RECORD							
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Total
1. æ Food								
æ Milk								
æ Grocery								
æ Vegetables & Fruits								
2. Clothing								
3. Housing								
4. Education								
5. Health								
6. Entertainment								
7. Any other item								
8. Savings.								

GRAND TOTAL

Rs...../-

**Precautions:**

1. Record the daily expenditure under each item head carefully without fail.

**CONCLUSION:**

1. Conclude from the total whether the expenditure is justified and support your answer with adequate reasons.
2. Suggest modifications in expenditure for some savings.

**RELATED QUESTIONS:**

1. List three items which involve the maximum/minimum expenditure.
2. What is the importance of reserving some money for entertainment?
3. Why is saving important?
4. Which is the spending heads where it is difficult to reduce expenditure?
5. Give three suggestions for reducing the expenditure on food.

**FOR MORE DETAILS:** - Refer lesson 16. in book 2 of your learning material.



**PRACTICAL NO: 5**

**AIM:**

To record the steps in the process of management while arranging a family function.

**OBJECTIVES:** After doing this practical you would be able to:

- identify the steps involved in arranging a family function;
- organize the family function systematically, using family resources, and
- assess the success/failure of the function.

**MATERIAL REQUIRED:** Pen and Paper

**PROCEDURE:**

Start planning the function much ahead of the actual date of the event. Record two planning details in a note-book. Use the following table to note the details of planning. Use this table to assign duties if any.

**TABLE FOR OBSERVATION:**

**GOAL:** Write the goal of this function.

Planning	Organizing	Implementing	Evaluating

**PRECAUTIONS:**

- 1) Know your goal clearly.
- 2) Plan each step carefully.
- 3) Follow the plan strictly.



**OR**

Visit an event nearby your surroundings and evaluate it under the following heads (you can add more headings)

- Timings of the event
- Flow of the event
- Overall management
- Venue
  - æ Space
  - æ Layout

Please suggest changes that could have been incorporated at the planning stage for better results.

**CONCLUSION:**

Evaluate the event after it is over.

**CRITERIA FOR EVALUATION:**

All stages of the function went on smoothly and all events took place without any problem.

**RELATED QUESTIONS:**

1. Why is it necessary to have a clear goal before beginning to plan?
2. Why is evaluation important?
3. Give two advantages and two disadvantages of delegating jobs to others.
4. What will you suggest to ensure that the job you delegated gets done?

**A NOTE FOR TUTORS:**

1. A learner may be given different goals and asked to make a plan to achieve those goals.

**FOR MORE DETAILS:** - Refer lesson 14. in book 2 of your learning material.

**PRACTICAL NO: 6**

**AIM:**

To make a time plan for a homemaker with two school going kids for a typical evening from 4 to 8 O'clock.

**OBJECTIVES:** After doing this practical you would be able to

- identify all that needs to be done on a typical evening;
- sequence the activities, and
- spell out how and when others can be involved.

**MATERIAL REQUIRED:**

Paper and Pen:

**PROCEDURE:**

1. Make a list of all the activities to be performed during a given period, like - taking children to the park/ music class/ shopping, helping them with their homework and preparations for next day etc.
2. Estimate time required for each activity and workout correct sequence of activities.
3. See if you can delegate some activities and reduce your own workload.
4. Check the time plan. Plan must accommodate all the required activities.
5. Evaluate the time plan after it is carried out.



**TABLE FOR OBSERVATION:**

**Time Plan**

Time	Activity	Evaluation

**PRECAUTIONS:**

1. Your time plan should be a practical and a flexible one
2. Keep some time for recreation as well as for emergencies if any.
3. Make a time plan which you can follow easily.

**CONCLUSION:**

Study the plan critically and suggest improvements if any.

**CRITERIA FOR EVALUATION:**

A good time plan has time for all the activities, including time for rest.

**RELATED QUESTIONS:**

1. How does a time plan help?
2. How do you make an accurate estimate of time?
3. Why is it important to delegate the work.

**A NOTE FOR TUTORS:**

1. A learner may be asked to prepare different time plans for different members of the family.
2. A learner may be asked to prepare a full day time plan for him / herself.

**FOR MORE DETAILS:**

Refer lesson 15 in book 2 of your learning material.



**AIM:**

To prepare a label for a product with the following quality marks

- a) ISI
- b) FPO
- c) Agmark

**OBJECTIVE:** After doing this practical you would be able to:

- identify the information that needs to be printed or engraved on a product, and
- develop a label for a product on the basis of the relevant information needed by a consumer to make a correct choice while buying.

**MATERIALS REQUIRED:** Pen, Paper

**PROCEDURE:**

1. Identify the product with quality mark on it, for example
  - æ Electric product like Electric fan with ISI mark
  - æ Fruit product like Jam with FPO mark
  - æ Agriculture Product like Wheat flour with Agmark
2. Make a list of the information that has to be put on the label of the product you have selected. Refer the following list of information.
  - a) Name of the product.
  - b) Trade and Brand name
  - c) Manufacturer's name and address
  - d) Ingredients/Contents
  - e) Use of the product
  - f) Direction for use of the product.
  - g) Precaution to be taken while using the product.
  - h) Date of manufacture and date of expiry for the perishable products.
  - i) Guarantee period
  - j) Product price, MRP



3. Note down the above information for each product.
4. Fix a size of your label.
5. Prepare a label that can be printed or engraved on the product or package of the product.
6. Arrange all the information creatively so as to attract the attention of the consumer.

**PRECAUTIONS:**

1. Write all the information on the label clearly.
2. Give only correct information on the label.
3. Arrange all the information concisely.
4. Keep the size of product in mind.

**CRITERIA FOR EVALUATION:**

A good label carries all the required information and in a print size that a consumer can read comfortably.

**RELATED QUESTIONS:**

1. Why is it important to include the manufacturer's name and address on the label?
2. Why is it important to write the date of manufacture and expiry on the label?
3. Why do we need labels on products?

**A NOTE FOR TUTORS:**

1. A learner may be asked to prepare a label for a product on display.
2. A learner may be given an incomplete label and asked to complete it.
3. A learner may be given an incorrect label and asked to correct it.

**FOR MORE DETAILS:** - Refer lesson 22 in book 2 of your learning material.

**OR**

***Practical Manual***

\* AIM

Select a product amongst the following quality marks and give information on what should be included in the label. Refer to point no. 2 in the procedure.

S. No	Quality Mark	Information for the Label
1	ISI	
2	FPO	
3	AGMARK	

*\*Note: to be attempted by learners with disability*

## PRACTICAL NO: 8

### AIM

To survey home for safety hazards and suggest improvements regarding

- æ Plug points near the floor
- æ Storage place for phenyl, pesticides, insecticides, medicines
- æ Parapet or borders on the roof
- æ Railing of the staircase

**OBJECTIVE:** After doing this practical you would be able to

- assess the safety hazards in your house;
- identify the places of safe storage for medicines and poisonous substances in your home; and
- suggest safety measures for railings, parapet on roof and floor of bathroom and kitchen.

**MATERIALS REQUIRED:** Pen, Paper



## Practical Manual

### PROCEDURE:

Make the following observations in the house to detect safety hazards. Tick your observation.

		S.No.	Yes	No
<b>Plug Points</b>	1. Are there plug points near the floor area?	1		
	2. Do the plugs have ISI mark?	2		
	3. Do the plug points have covers?	3		
	4. Do the devices have correct wire and plug?	4		
	5. Are the electric points earthed?	5		
<b>Storage Space</b>	6. Are phenyl, pesticides, insecticides, medicines etc. Stored in separate cupboards?	6		
	7. Are all these labeled?	7		
<b>Roof</b>	8. Do parapets on roof have borders for safety?	8		
	9. Is the border safe for children? (is it open/meshed/closed?)	9		
<b>Stair Case</b>	10. Does staircase have railings?	10		
	11. Is railings safe for children?	11		
<b>Floors</b>	12. Are kitchen and bathroom floors dry?	12		
	13. Do the floors have mat finish?	13		
	14. Are these floor areas clutter free?	14		

### PRECAUTIONS:

Examine the safety hazards critically.

### CONCLUSION:

Make suggestions for improvement on the basis of critical study of safety hazards.

### RELATED QUESTIONS:

1. What is the benefit of using electric plugs with ISI mark.
2. Why is proper place needed for storing phenyl pesticides, insecticides, medicines etc?



### A NOTE FOR TUTORS:

1. A learner may be asked to comment on safety hazards of a situation shown in a picture.

**FOR MORE DETAILS:** - Refer lesson 22 in book 2 of your learning material.

## PRACTICAL NO. 9

### AIM:

To observe the items eaten from the given menu. To classify each item into an appropriate food group. To suggest, items to be included in the food group not covered in the meal.

**OBJECTIVES:** After doing this practical you would be able to:

- list the main ingredients used in the items mentioned in the menu;
- classify these items in different food groups;
- determine whether the meal eaten was balanced or not, and
- suggest items to be included if the meal is not balanced.

### MATERIALS REQUIRED:

Paper, Pen, Scale and the given menu.

### PROCEDURE TO FOLLOW:

1. Study the given menu carefully.
2. List the main ingredients used to make the items included in the menu.
3. Classify each item into an appropriate food group.
4. Identify the food group not included in lunch.
5. Suggest food items that can be included from the missing food group, so that the meal is balanced.

### MENU:

**Rajma**  
**Rice/Zeera Pulao**  
**Dry Aloo Vegetable**  
**Kheer**

**TABLE FOR OBSERVATION:**

S.No.	Menu	Food stuffs used	Main Ingredients	Food Group	Suggested food items to be included

**PRECAUTIONS:**

1. Study the menu carefully.
2. Record every ingredient used to prepare the food item.
3. Do not miss out on any food group.

**CONCLUSION AND SUGGESTION FOR IMPROVEMENT:**

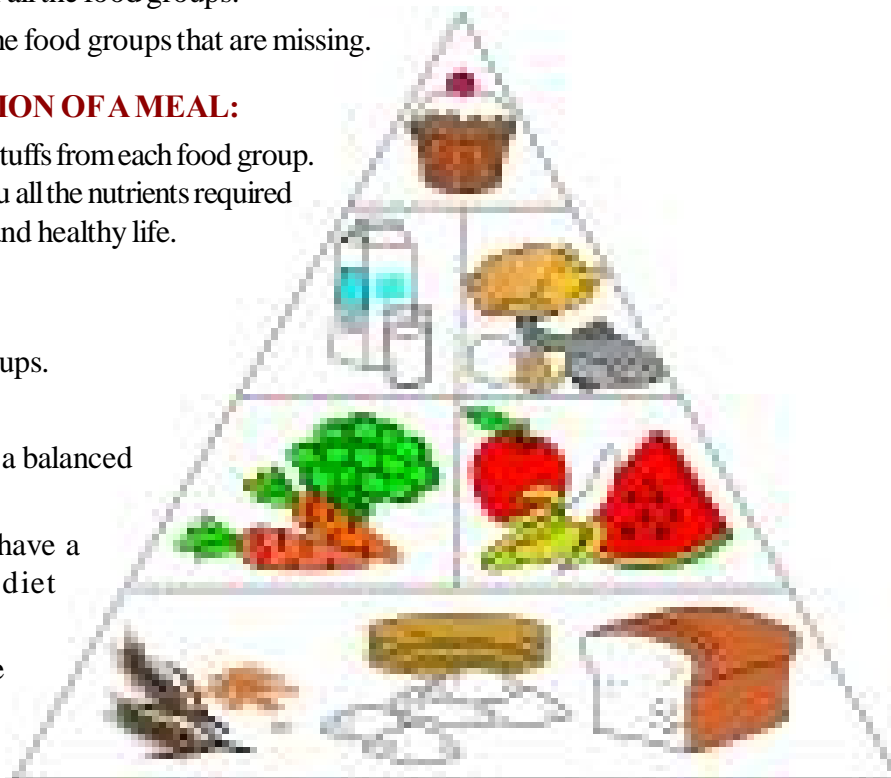
1. Meal is/ is not consisting of all the food groups.
2. Include food- items from the food groups that are missing.

**CRITERIA FOR EVALUATION OF A MEAL:**

A balanced meal must have foodstuffs from each food group. Only a balanced meal will give you all the nutrients required for your body to lead a normal and healthy life.

**RELATED QUESTIONS:**

1. Name the various food groups.
2. What is a balanced diet?
3. What is the importance of a balanced diet?
4. What will happen if you have a carbohydrate rich diet everyday?
5. Why does a mother force her child to drink milk?



**A NOTE FOR TUTORS:**

1. A learner may be given a menu of unbalanced diet and be asked to balance it.
2. A learner may be asked to recollect a meal eaten and then conclude if it was balanced or not.

**FOR MORE DETAILS: -**

Refer lesson 3 in book 1 of your learning material.



**PRACTICAL NO : 10**

**AIM:**

To adjust the given meal for a family keeping in mind the sex, age and activity of the family members.

**OBJECTIVES:** After doing this practical you would be able to:

- know the nutritional needs according to sex, age and physical activity, and
- adjust the given meal to suit the needs of individual members of the family.

**MATERIAL REQUIRED:**

Paper, pen, Scale to draw the following tables for recording and a given menu.

**PROCEDURE TO FOLLOW:**

1. Identify the specific requirements of each member as per the criteria given in the table below
2. Suggest modifications in the meal to suit the individual requirements.

**TABLE FOR OBSERVATION:**

**Table A: General Information**

S.NO.	Family member	Special requirement of a member if any	Age	Sex	Physical Activity
1.	Husband		45	M	Heavy work
2.	Wife		39	F	Sedentary work
3.	Child		4	F	
4.	Grandfather		62	M	Sedentary work
5.	Adolescent		16	M	Heavy work

**Table B: Food Distribution in the Family/ Modification Needed**

	Father	Mother	Child	Adolescent	Grandfather
Early Morning					
Breakfast					
Mid Morning					
Lunch					
Evening Tea					
Dinner					

**PRECAUTIONS:**

1. Be aware about the requirements of each family member according to sex, age and physical activity.
2. Include at least one food item from each food group while planning a meal. This will help you to plan one basic menu for the family.

**CONCLUSION AND SUGGESTIONS FOR IMPROVEMENT:**

1. The meal planned is balanced/not balanced and suitable/not suitable for the family.
2. Give one reason why the meal has been modified for the following:  
Child, grandfather, adolescent and husband doing heavy work.

**CRITERIA FOR EVALUATION:**

- Children need small but frequent meals.
- Old people may not be able to eat every kind of food stuff.
- Men need more proteins than women need.
- Members involved in sedantary work need less calories (energy) than those involved in hard labour.
- During illness, the food is changed in quantity, quality and frequency depending on the need of a patient.

**RELATED QUESTION:**

1. What is meal planning?
2. List the various factors which affect meal planning.
3. In which form can wheat be given to an infant and an adolescent?

**A NOTE FOR TUTORS:**

1. A learner may be given a menu to adjust it to suit all the family members.
2. A learner may be asked to adjust a single food item for different age groups.
3. A learner may be asked to adjust a meal during sickness in the family.

**FOR MORE DETAILS:** Refer lesson 3 in book I of your learning material.



## PRACTICAL NO: 11

### AIM

To identify fibres using burning test.

**OBJECTIVE:** After doing this practical you would be able to:

- identify different fabrics available in the market using burning test;
- avoid getting cheated by a sales person, and
- select an appropriate fabric for yourself.

### MATERIALS REQUIRED:

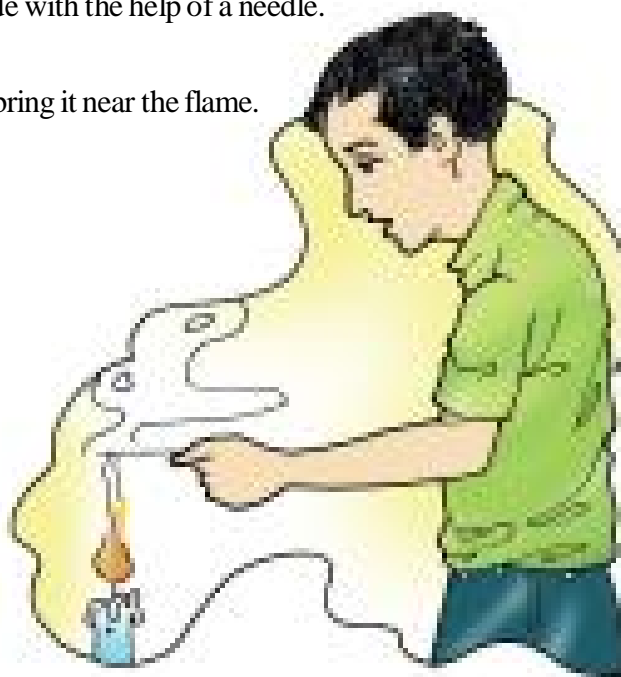
Strips of different types of cloth, a needle, forceps, a candle, matchbox etc.

### SOURCE:

Old pieces of cloth available at home or leftover strips of cloth obtained from a tailor.

### PROCEDURE:

1. Select any ten different strips of cloth.
2. Number these strips 1-10.
3. Take strip no. 1 and pull out yarns from the side with the help of a needle.
4. Light the candle with a matchstick.
5. Hold the pulled out yarn with the forceps and bring it near the flame.
6. Observe carefully.
7. Note the observation in the table given below.
8. Repeat it for all other fabric strips.



**TABLE FOR OBSERVATIONS:**

Strip No.	Near Flame	Type of Flame	Odour	Residue	Identified Fabric
1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

**PRECAUTIONS:**

1. Take out a long yarn from the fabric to get correct result.
2. Use the forceps to hold the yarn in flame.
3. Do not smell the fiber immediately after exposing it to flame.
4. Do not check the residue with your fingers until the yarn has cooled down.

**RELATED QUESTIONS:**

1. If the residue of a burnt fibre is a hard bead, which fibre could it be?
2. When you hold the fibre in flame and it burns out quickly with a yellow flame, Which fibre could it be?
3. A fibre, on burning smells like burnt milk. Is it an animal or vegetable fibre?

**FOR MORE DETAILS:** Refer lesson 10 in book 1 of your learning material.

**OR**

\* **AIM:** To indentify the given fabrics by touching and feeling the texture.

S. No	Identified Fabric
1	
2	
3	
4	
5	

\*Note: To be attempted by learners with disability

**PRACTICAL NO: 12**

**AIM:**

To make graphic illustration or sample of plain weave by using strips of paper.

**OBJECTIVE:** After doing this practical you would be able to make a sample of a fabric constructed by plain weaving.

**MATERIALS REQUIRED:** Paper, pen, pencil, scissors, scale

**PROCEDURE:**

1. See figure 3 carefully.
2. Make it with pencil and scale in box 1.
3. Cut strips of paper in two colors (2mm thickness) as shown in figure 1.
4. The length of the strips should be a little longer than the dimensions of the box.
5. Weave these like a chatai as shown in figure 2.
6. Stick this sample in box two.

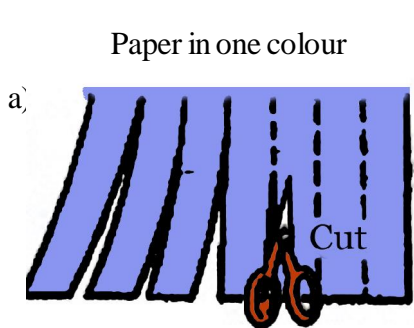


Figure 1

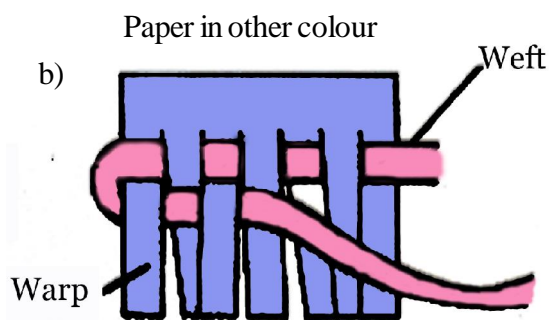


Figure 2



BOX I



BOX II

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### **PRECAUTION**

1. The weft should have an alternate interlacing with the warp.

### **CRITERIA FOR EVALUATION:**

Warp and Weft yarns are closely packed in a good weave and make a compact fabric.

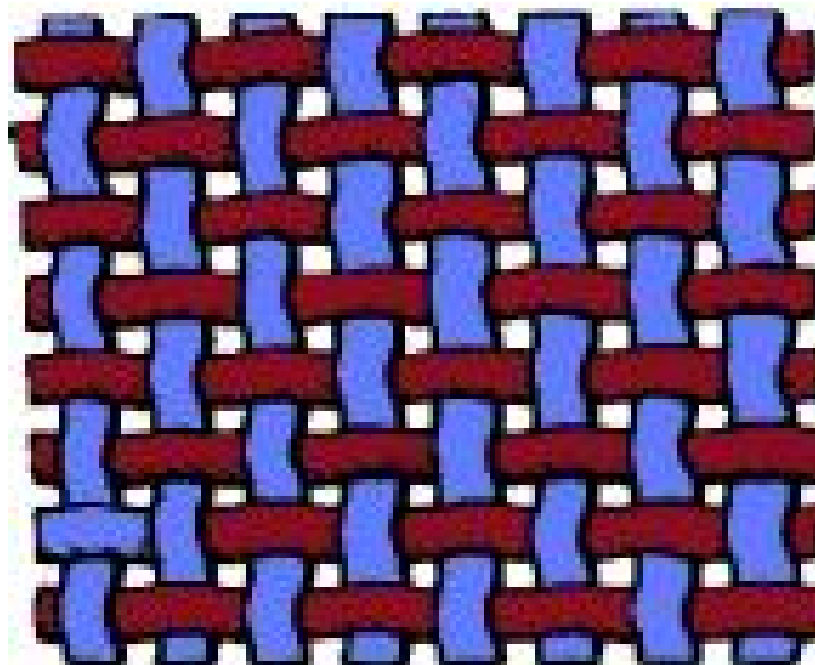
### **SUGGESTED QUESTIONS:**

1. What do you understand by warp and weft?
2. What are the qualities that you look for in a good quality fabric?
3. Give an example of common fabric woven by plain weave.

### **A NOTE FOR TUTORS:**

1. A learner may be asked to make a sample using a string or wool.

**FOR MORE DETAILS:-** Refer lesson 10 in book 1 of your learning material.



**Figure 3**

## PRACTICAL NO: 13

### AIM:

To remove the given stains from white cotton fabrics.

- a. Immediately
- b. After two days

### Stains:

- i) Tea/Coffee
- ii) Blood/ Milk/ Egg
- iii) Oil
- iv) Plant/Nail Polish
- v) Ink

**OBJECTIVE;** After doing this practical you would be able to:

- identify the stain;
- select an appropriate stain remover;
- select an appropriate stain removing method, and
- remove stain from fabrics when fresh and when two days old.

### MATERIALS REQUIRED

- i) 15 samples of white cotton fabric (size 5 cm x 5 cm each)
- ii) Water
- iii) Soap
- iv) Glycerin
- v) Salt
- vi) Talcum Power
- vii) Sour Buttermilk
- viii) Lime Juice
- ix) Kerosene



### PROCEDURE:

1. Three samples of stained white cotton fabrics with one stain e.g. three with tea, three with oil, three with paints etc.



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2. Stick one of the stained samples in column I of the table given below. You will now have two sets of stained samples with you.
3. Shuffle the samples in such a way that their order changes and keep away one set for two days.
4. Identify each stain by color, smell and feel. Record it in the corresponding box in appropriate column II of the table.
5. Remove the identified stain on the sample using the methods given in the book.
6. Stick the cleaned samples in column III of the table.
7. Similarly, identify and remove the stain on the second set of samples using the same method after two days.
8. Stick the cleaned samples in column IV of the table.
9. Record the procedure followed in column V of the table given below.

### **TABLE FOR OBSERVATIONS:**

<b>Stained sample</b>	<b>Stain</b>	<b>Cleaned immediately</b>	<b>Cleaned after (2 days)</b>	<b>Procedure followed</b>	
				<b>To identify</b>	<b>To clean</b>
<b>I</b>	<b>II</b>	<b>III</b>	<b>IV</b>	<b>V</b>	

### **PRECAUTIONS:**

1. Identify the stain and use appropriate method for removing it.
2. Do not use concentrated chemicals in the beginning.
3. Rinse thoroughly after using the chemical.

### **CONCLUSION:**

1. As far as possible remove stain when fresh.

### **CRITERIA FOR EVALUATION:**

The washed samples should not have any stains.

**A NOTE FOR TUTORS:**

1. A learner may be asked to identify the stain on the sample through colour, smell and feel.
2. A learner may be asked to list appropriate stain removers and stain removing methods.
3. A learner may be asked to use these methods and clean the sample.

**FOR MORE DETAILS:** - Refer lesson 9 in book 1 of your learning material.

**OR**

**\* AIM:**

Write the appropriate procedure in the column provided in the given table. to remove the following stains.

S. No	Stains	Procedure for removal
1	Tea / Coffee	
2	Blood/ Milk/ egg	
3	Oil	
4	Paint/ Nail Polish	
5	Ink	

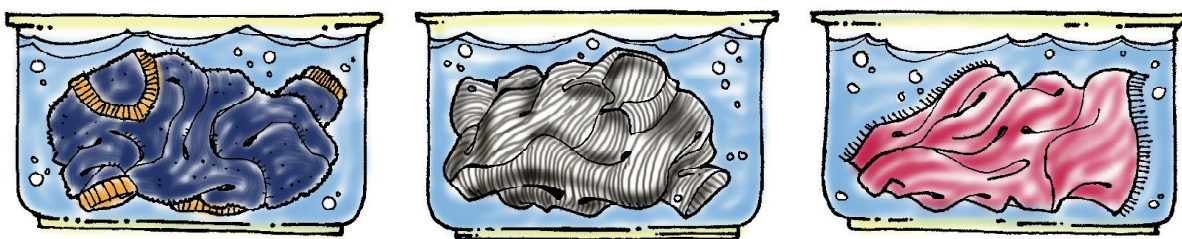
\*Note: To be attempted by learners with disability

**AIM:**

- a) To wash and finish a Cotton Dupatta /Saree/ Shirt
- b) To wash and finish a woollen shawl/cardigan.
- c) To wash and finish a silk scarf/blouse/dupatta

**OBJECTIVE:** After doing this practical you would be able to:

- select suitable methods and cleaning agents for washing the different fabrics, and
- appropriately finish the garments



**A) TO WASH AND FINISH COTTON DUPATTA/ SAREE/ SHIRT**

**MATERIALS REQUIRED:**

Detergent or Soap, Soft Brush, Bucket, Maida Starch or Readymade Starch, Iron.

**PROCEDURE:**

1. Soak the garment in a solution of detergent for some time.
2. Use the rubbing method to wash the garment.
3. For very dirty area use a soft washing brush.
4. After washing rinse the garment thoroughly in clean water to remove soap completely.
5. Add some starch paste in a basin of water and mix it well.
6. Dip the wet garment in the starch solution. Squeeze and hang it to dry in the sun.
7. While drying, make sure that the garment remains in shape.
8. Straighten the selvages of the dried Dupatta/Saree. Fold it first length wise and then widthwise.
9. Moisten the garment a little to iron it.

**PRECAUTIONS:**

1. Do not soak coloured garments that bleed.
2. Do not dry coloured garments in direct sun.
3. Do not use very thick and/or lumpy starch.
4. Do not use very hot iron. The garment may turn yellow. Control the temperature carefully while ironing white garments.

**B) TO WASH AND FINISH A WOOLLEN SHAWL/ CARDIGAN**

**MATERIALS REQUIRED:**

One woollen shawl/cardigan, Bucket, Water, Reetha nut solution suitable commercial preparation, a soft towel, iron.

**PROCEDURE:**

1. Take reetha nut solution in a bucket, add water and mix it well.
2. Soak the garment in the solution.
3. Wash the garment with soft kneading and squeezing method.
4. Rinse it in clean cold water a few times until the reetha nut solution has been rinsed out.
5. Squeeze it gently after the final rinse and soak any extra water with a soft towel.
6. Spread it on a flat surface to dry to a moist state.
7. Heat the iron and press it gently.

**PRECAUTIONS:**

1. Do not use ordinary detergent to wash the woollen shawl or cardigan.
2. Do not use hot water for washing as it may felt the fabric.
3. Do not hang the garment or it will lose shape.
4. Dry the garment in shade.
5. Do not use reetha nut solution for washing white woollen fabric as it may stain the fabric. The commercial preparations available in the market may also be used.

**C) TO WASH AND FINISH A SILK SCARF/BLOUSE/DUPATTA**

**MATERIALS REQUIRED:**

Silk scarf / dupatta, bucket, water, reetha nut solution or suitable commercial preparation, vinegar or limejuice, gum solution, soft towel, iron.

**PROCEDURE:**

1. Add reetha nut solution to luke warm water in a bucket and make a lot of lather.

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2. Soak the silk garment to be laundered in the solution.
3. Wash the garment using mild kneading and squeezing method.
4. Take the garment out of washing solution. Squeeze gently.
5. Rinse out all soap in cold running water. Do not squeeze hard.
6. Add a few drops of vinegar or lime juice and gum water in the last rinse.
7. Roll the garment in a towel to remove excess water.
8. Place the garment on the clothesline in shade for drying.

### **PRECAUTIONS:**

1. Do not use very hot water for washing.
2. Do not use ordinary soap or detergent to wash the garment.
3. Do not use friction to wash the garment.
4. Do not wash white silk fabric in reetha nut solution to avoid staining.
5. Dry the garment in shade.

### **CRITERIA FOR EVALUATION:**

- Finished garments should have shine and crispness.
- Finished garment must look clean and fresh.
- It should be stain free and well ironed.

### **RELATED QUESTIONS:**

- 1) Why is reetha nut solution not used for white fabric?
- 2) Why should you wash woollen garments in cold water?
- 3) Why should you moisten the starched cotton garments before ironing?

**FOR MORE DETAILS:** - Refer lesson 9 in book 1 of your learning material.

**PRACTICAL NO: 15**

**AIM:**

**To clean the following surfaces**

- a) plastic bucket and mug
- b) bathroom tiles
- c) toilet floor and water closet
- d) metal taps
- e) painted doors/windows
- f) window panes

**OBJECTIVE:** After doing this practical you would be able to:

- identify the surface;
- select appropriate cleansing agent, and
- select appropriate method of cleaning.

**MATERIALS REQUIRED:**

1. Brooms/Brushes/Vacuum cleaners
2. Dusters/Mops
3. Buckets/Basins/Mugs
4. Soaps, Detergents and Scouring powders
5. Disinfectants: Dettol
6. Alkalis: Soda, Borax, Ammonia
7. Acids: Tamarind, Vinegar
8. Oils: Kerosene oil, Linseed oil, Turpentine oil, Petrol.

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### PROCEDURE:

S.No	Surface	What to examine	Materials Required	Method
1	Plastic mug and bucket	dirt and stains	warm soapy water, tooth brush, Vinegar.	1. Wash article with warm soapy water. 2. Use brush to reach innermost places. 3. Use vinegar and water to loosen grease stains and bring back shine. 4. Rinse with clean water. 5. Dry and polish.
2	Bathroom and kitchen tiles			
3	Toilet and Toilet Floor			
4	Metal taps			
5	Painted door/window			
6	Window glass panes/ mirrors			

*\*Refer lesson 12 for cleaning of other surfaces.*

### PRECAUTION:

1. Avoid hard scrubbers.
2. Do not leave reagents on the surface. Wash immediately and dry it.
3. Strong acid or alkalis should be avoided.
4. Dry and polish to remove any moisture so that no water stains are formed later.

### CRITERIA FOR EVALUATION:

All surfaces should look sparkling after cleaning.

They should be free of any stain and dirt in creases or curves if any.

### RELATED QUESTIONS:

1. What will happen if you use hard scrubbers on plastics?
2. How would you remove stains from brass taps?
3. How are greasy stains removed from windowpanes?
4. Why should strong acids or alkalis be avoided?

**A NOTE FOR TUTORS:**

1. The learner may be asked to match items with cleaning agents on display.
2. The learner may be asked to clean the given items using appropriate cleaning agents and techniques.

**FOR MORE DETAILS:-** Refer lesson 12 in book 2 of your learning material.

**OR**

**\*AIM**

State appropriate cleansing agents and method of cleaning to clean the following surfaces.

S. No	Surfaces	Cleansing Agent	Method to Cleaning
1	Plastic bucket and Mug		
2	Bathroom tiles		
3	Toilet floor and water closet		
4	Metal Taps		
5	Painted doors and windows		
6	Window panes		

\*Note: To be attempted by learners with disability



**PRACTICAL NO: 16**

**AIM:**

To observe the communication skills of four children in the following age groups:

Eight months - Twelve months/ One year æOne year and Six month/ One year and Six month - Two year/  
Two year- Three year

**OBJECTIVE:** After doing this practical you would be able to:

- find out how does a child communicate;
- trace how the expression develops over a period of time, and
- study the growth of child’s vocabulary over a period of time.

**MATERIAL REQUIRED:** Paper, Pen and Child.

**TABLE FOR OBSERVATION:**

	Child-I 8mths-12mths	Child-II 1 year-1½ year	Child-III 1½ year-2year	Child-IV 2 year-3year
gestures				
sentence				
vocabulary				

**PRECAUTIONS:**

1. Observe a number of children for better comparison and to get expected results.
2. Each observation should last at least for two weeks.
3. Observe the child at different times of the day and for duration of five-ten minutes.

**CONCLUSION:**

State your inference on how the children you have observed have developed in their communication skills.

**RELATED QUESTIONS:**

1. How do children communicate in the age group of eight months to one year?
2. When does a child start to utter complete sentences?
3. What is your rough estimate of a child’s vocabulary by the time he is one year old?
4. Do you see any gender difference in development of language?
5. What is the role of other members in a child’s language development?

**FOR MORE DETAILS:** - Refer lesson 18 in book 2 of your learning material.

**PRACTICAL NO: 17**

**AIM:**

To make low cost toy/game using household materials for children.

**OBJECTIVES:** After doing this practical you would be able to:

- identify specific needs of a child for a suitable learning material at different stages of development;
- develop the skill of designing and making suitable toys/play materials for children, and
- give expression to creativity.

**MATERIALS REQUIRED:**

Any materials easily available at home like cloth pieces, old socks, sponge, wool, knitting needles, empty boxes, tins and bottles, cardboard, glue, scale, paint box/coloured pencils or crayons, needle, thread, scissors. etc.

**PROCEDURE:**

- Using materials available at home design play material like a rattler, soft toy, a puppet, a mobile, a puzzle for a child.
- State the suitability of the toy for the child. and give reason for your answer.

**TABLE FOR OBSERVATION:**

S.No.	Toy description	Suitability to age group	Reason

**PRECAUTIONS:**

1. See that the toy you design is easy to make and easy to use.
2. Do not use unsafe material to assemble this toy.

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3. Toy should be designed to suit the age.
4. Toy should be safe and also sturdy as for as possible.



### **CONCLUSION:**

Compare the toy you have designed with a similar toy from market and state the positive and negative points related to the toy you have designed.

### **CRITERIA FOR EVALUATION:**

- The toy should be attractive, safe, simple to use, and suitable for development.

### **RELATED QUESTIONS:**

1. Give two characteristics of toys suitable for one year-old child?
2. State two ways in which the toys for a four year old shall be different from those for a one year old child.
3. Why is 'Safety' important while selecting toys for children?
4. Suggest things you will do to make toys you have designed safe for children.

### **A NOTE FOR TUTORS:**

1. A learner may be asked to make a toy from the given material for a specific age group.
2. A learner may be shown a toy and asked to assess its suitability for a particular age group.

**FOR MORE DETAILS:-** Refer lesson 18 in book 2 of your learning material.