

MODEL LESSON PLAN (5 E based)
(Real Teaching)
(In accordance with NEP 2020)

Subject : Home Science

Class : 11th

Unit / Chapter : Care and Maintenance of Fabric

Topic : Techniques of Stain Removal

Duration :40mins

Date : / /

LEARNING OUTCOMES :

1. Learners understand the aspects of care and maintenance of fabrics.
2. Students develop the habit of wearing stain free dress .
3. The students understand that the same method of stain removal is not applicable to all types of stains
4. The learners develop the ability to identify various stain removal reagents.

LEARNING OBJECTIVES :

After completion of the topic, the student will be able to-

1. Know the procedure of removing different stains.
2. Classify the stains into various categories.
3. Explain various stain removal methods.
4. Demonstrate the correct technique of Absorbent method of removing stain.
5. Analyse how fabric composition affects stain removal procedure.
6. List various reagents used for removing stains.

LEARNING RESOURCES :

- Samples of various fabrics
- Stained samples of ghee, turmeric and nail paint.
- Soap / detergent
- Water and mug
- Black board / Smart board

INSTRUCTIONAL METHODS :

- Demonstration
- Question -answer
- Explanation

PREVIOUS KNOWLEDGE ASSUMED :

Students may have some knowledge of stains and the various types of stains.

I. ENGAGE

PREVIOUS KNOWLEDGE TESTING :

Sr. No.	Teacher's Activity	Student's Response
1.	Students , do you know what is a stain ?	Any unwanted mark or discoloration on a fabric.
2.	Can you name some stains ?	Vegetable stains, Animal stains, Chemical stains, Dye-bleeding.
3.	Okay, tell me how can we remove stains from our fabrics ?	Wash them using soap and water.
4.	So can we wash all the stains using soap and water ?	No response.

Announcement of the topic : Well students, today we shall discuss the techniques of removing different types of stains in detail.

II. EXPLORE

The teacher now hands over the students a few stained samples of tea, turmeric, nail paint and ghee and asks the students to come forward and wash the stained samples using soap and water and asks the students to report their

findings.

Teacher's activity	Student's response
<p>What did you notice while cleaning the stains students ?</p> <p>What difference did you observe ?</p> <p>In that case, there needs to be a stain specific technique with specific reagents to help us remove the stains.</p>	<p>Different stains required different efforts and time for their removal.</p> <p>Turmeric stain could be removed using soap only while nail paint could not be removed using soap, similiarly fresh blood stain was easy to remove while ghee stain was stubborn.</p> <p>Yes</p>

III. EXPLAIN

PRESENTATION :

<i>Teaching points</i>	<i>Teacher activities</i>	<i>Student's activities and responses</i>	<i>Writing board Summary</i>
Techniques / Methods of removing stains	In order to remove the stain ,it is important to identify the stain first. Thereafter use a technique best suited to the type of fabric and stain	Students listen carefully and show curiosity.	Techniques of removing stain- -Scraping -Dipping -Sponging -Drop Method.
Scraping	All the built up surface stains can be scraped lightly using a blunt knife..	Students begin to build interest in the topic.	Mostly suitable for- old curry stains and adhesive tape stains.

	It can be used to lift off excess semisolid staining material and to loosen caked-on stains.	Students take down the points in their notebooks.	
Dipping	In this method the stained material is dipped into the reagent and scrubbed.	Students listen carefully.	Best suited for stains like - grease and medicines.
Sponging	The stained area is placed on a flat surface. The reagent is applied with a sponge on the stained area and absorbed by the blotting paper laid underneath. Best suited for fabrics that can't be washed.	Students listen attentively and ask about blotting paper. Students note down the important points in their notebooks.	Also called the Absorbent method . Best suited for fabrics like silk. Stains removed using sponging method- -Ice cream stain -Mildew stain -Scorch stain -Milk or cream
Drop method	Also called as Chemical method . This method is most suited for stains that are soluble or can be easily dissolved in chemicals.	Students are surprised about the use of chemicals in removing stains and ask about such chemicals.	Chemicals used most commonly to remove stains are - Acetone, benzene, turpentine oil.
	Drop method is mostly used to remove stains of - grease, nail-paints.	Students note down the key points in their notebooks	Best suited for stains like- -grease -medicines

<p>Stain remover or reagents</p>	<p>The stained cloth is stretched over a bowl and the reagent is put on it with a dropper.</p> <p>Various stain removers should be used in liquid form and in concentration recommended for their use .</p>	<p>Students write down the names of important stain removal reagents in their notebooks.</p>	
	<p>These can be classified as—</p> <p>Grease solvents</p> <p>Grease absorbents</p> <p>Emulsifiers</p> <p>Alkaline reagents and</p> <p>Acidic reagents</p>	<p>Students listen attentively to the teacher and note down the information.</p>	<p>Grease solvents like kerosene, acetone, turpentine oil.</p> <p>Grease absorbents like bran, talcum powder, fuller's earth</p> <p>Emulsifiers like Soaps and detergents.</p> <p>Alkaline reagents like ammonia, borax and baking soda.</p> <p>Acidic reagents like lemon, tomato, curd , acetic- acid,oxalic acid.</p>

<p>Some common stains and their removal methods</p>	<p>Pen,grease, ice-cream,mildew and milk or cream– Sponging method</p> <p>Candle wax,adhesive tape, chewing gum – Scraping method.</p> <p>Lipstick,rust, medicines, nail paint – chemical method</p> <p>Blood,curry , fruits and vegetables –dipping method.</p> <p>Ink stains are removed by dipping in oxalic acid and ball point pen stains are removed by sponging with methylated spirit</p>	<p>Students listen attentively and note down the information in their notebooks</p> <p>Students come up with the names of some other stains like ink stain, ball point pen stain and ask the reagents for removing them..</p>	
--	---	---	--

IV. ELABORATE

So students we found out today that removal of any stain requires correct identification of the stain and using right procedure for its removal. We also deciphered that removal of any stain does not solely depends on the type of stain but also on duration and nature of the stain and also the type of fabric. We learnt that while using chemicals for removing stains on delicate fabrics always try out the chemicals on a small part of the fabric and in case it damages the

fabric stop using it.

V. EVALUATE

1. What are the different types of stains ?
2. technique of stain removal requires special precautions
3. Can you name some acidic reagents ?
4. Most commonly found grease absorbents in our homes include _____ and _____.
5. _____ and _____ can be labeled as Emulsifiers.

The students were able to answer most of the questions asked after the lecture.

RECAPITULATION :

So, students today we learnt about the various techniques/ methods of stain removal and different reagents used to remove them .We also came to know about different reagents used for removing some very common stains that spoil our fabrics in day to day lives and that such reagents should be used very carefully and with utmost precautions when dealing with delicate fabrics .

Home Activity / Assignment :

- Prepare a list of some of the most easily available stain removal reagents in your vicinity.
- Label various stain removal reagents that you can find in your homes under various categories as explained in the class.
- Prepare a list of some common stains that spoil your clothes in day to day life.
- Ask your mother about the most frequently used technique of stain removal in your home and inquire about the method applied by her for its removal.