No.F.16-44/Dean(A)/2017/766 Y
Dean (Academic) Office

Dated: 27th June, 2017

Prof. Saroj Yadav
Dean (Academic)

Dear Sh. Jawahar,

This is with reference to your letter No.F.27-1/2016-EE.16 dt. 31st January, 2017 and as per the Minutes of the meeting held on 28.12.2016 at Ministry of DWS on Sanitation regarding development of supplementary material. In this connection, NCERT has developed a Supplementary Material titled “Simmi’s Journey towards Cleanliness” for Primary Stage. Copy of the supplementary material is enclosed for information and record please.

With regards,

Yours sincerely,

(Prof. Saroj Yadav)

Encls: As above.

Sh. Alok Jawahar,
Under Secretary,
EE-16 Section,
Department of School Education & Literacy,
Ministry of Human Resource Development,
Shastri Bhawan,
New Delhi.
Simmi's Journey Towards Cleanliness

Supplementary Material for Primary Stage
स्वच्छ भारत
एक कदम स्वच्छता की ओर
Simmi's Journey
Towards Cleanliness

Supplementary Material for Primary Stage

NATIONAL COUNCIL OF EDUCATIONAL RESEARCH AND TRAINING
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Foreword

As a follow up of the Inter-Ministerial Meeting organised by the Ministry of Drinking Water and Sanitation (MoDWS), National Council of Educational Research and Training (NCERT) developed supplementary reading material on Sanitation and Hygiene for the Primary and Upper Primary stages, based on the outline provided for development of the book.

This book is a supplementary reader for the primary stage. The objectives of this book is to build awareness about practices related to hygiene and sanitation woven in the format of a story and to help children imbibe these practices in their daily life. Children can read and enjoy independently and develop healthy hygienic and sanitation practices.

In the development of this supplementary material, practising teachers and teacher educators were involved.

I congratulate Saroj Yadav, Professor and Dean (Academic) and team members for developing this material. It is hoped that this book will be well received by children as well as teachers.

Comments and suggestions for further improvement would be thankfully acknowledged and incorporated in subsequent editions.

Hrushikesh Senapaty
Director
National Council of Educational Research and Training

New Delhi
7 June 2017
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Acknowledgements

The National Council of Educational Research and Training (NCERT) wishes to acknowledge the invaluable contribution of the experts and teachers in developing supplementary material on Sanitation and Hygiene for the Primary Stage. We are thankful to Anup Kumar Rajput, Professor and Head, Department of Elementary Education for deputing the faculty members and supporting the development of book. We are also thankful to Neeraja Rashmi, Professor, DESS for her valuable suggestions.

We are thankful to the Ministry of Human Resource Development, Ministry of Drinking Water and Sanitation and UNICEF for initiating the idea and assigning the task to NCERT. Thanks to Swarna Gupta, Associate Professor (Retd.), Department of Elementary Education, NCERT for her valuable suggestions which helped us in improving the book.

We are also thankful to Nidhi Wadhwa for the illustrations and designing the layout of the supplementary material.

Special thanks to Rani Sharma, PA, Iima Nasir, Editorial Assistant and Nitin Kumar Gupta, DTP Operator for their unrelenting efforts.
Simmi's Day Out

Simmi is an eight year old bubbly child who loves to play and have fun. She has made friends with a street dog named Bhuru. Bhuru follows her around everywhere.

Today, Simmi is happy to see that it rained last night. She thinks that it would be fun to go to the park with Bhuru.

Hurray! It is a nice day to play.

Simmi, brush your teeth.
Simmi had been playing outside for a long time.

Oh! Again, Simmi did not brush her teeth in the morning.

Simmi, come back home. It’s time to take a bath.
Yes, Ma. I am sorry that I went out to play and I haven’t brushed my teeth. I would just do it after I have this fruit.

Oh! Simmi why don’t you understand?

Simmi’s mother is furious and Simmi knows why. Simmi grins.

Why do you think Simmi’s mother is so worried?
Tara Ma'am has put up a healthy habit record chart on the classroom wall. Children place a star each for different healthy habits that they have followed all five days of the week.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Name</th>
<th>Did you brush your teeth?</th>
<th>Are your nails cut?</th>
<th>Are your clothes clean?</th>
<th>Is your hair combed?</th>
<th>Have you taken a bath today?</th>
</tr>
</thead>
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</tr>
<tr>
<td>3.</td>
<td>Bhanu</td>
<td>★★★★★</td>
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</tbody>
</table>

Can you tell from the chart who is not following healthy habits?

___________________________________________________________
Now, let us ask Simmi why she doesn’t follow good habits.

- Why wash my hands when they look clean?
- When my hands are dirty, I do wash.
- Combing hair is so painful and cutting the nails is so scary!
- How many times do I need to brush when I like to eat all day?
- Why bathe everyday?
- I look fine.

Do you agree with Simmi?
Simmi Falls Sick

While returning from school, Simmi wanted to eat *alloo tikki*.

See! She is eating the *alloo tikki* on which we were sitting.

Ha ha ha...she doesn’t know that we have transferred the dirt and germs on the *alloo tikki* she is eating.
In the evening, Simmi was crying out in pain. She vomited and had loose motions. She was not able to attend the school next day. She was feeling very weak and tired. She had fever too! Simmi’s mother and father took her to a doctor.

Have you ever fallen sick like Simmi?
Let us see what happened when Simmi went to see the doctor.

**Doctor:** Simmi, what did you eat?

**Simmi:** I had my tiffin in school and also had *aloo tikki*.

**Doctor:** Oh! I see. May be that *aloo tikki* has made you sick. You are suffering from diarrhoea.

**Simmi:** Does *aloo tikki* cause diarrhoea?

**Doctor:** No. *Alloo tikki* doesn’t cause diarrhoea. May be the place, utensils or *chutney* were not clean and full of germs. It can be anything unhygienic that made you sick. Diarrhoea happens due to contaminated food, water and poor sanitation. The germs cause diseases.
Simmi: What are germs? I do not see them.

Housefly, mosquito or worms carry very small organisms called germs. These germs cause many diseases. We can see them only through a microscope. Our eyes cannot see them.

How do we make people sick?

**Housefly:** These humans! They are too cruel. They kill us and clean the garbage and leave no place for us to breed. But many of them still do not use toilets and defecate in open where I sit and transfer the germs to them by sitting on their food. So I can make them fall sick even if they keep on trying to get rid of me.

**Mosquito:** Same here! They use so many things to keep me away. They put kerosene on stagnant water where we breed. But still, I find lot of puddles and water in unused tyres, pots, etc., where I lay eggs and produce more mosquitoes. I infect humans with dengue, malaria and chikungunya.

**Worms:** Yes my friends! You enter their homes. But I enter their bodies through unclean fruits, vegetables, etc., on reaching their bellies I grow bigger and bigger and make them suffer. Hurray!
How can we avoid germs?

Simmi: Doctor, what should I do to avoid germs so that I don’t suffer from diarrhoea again?

Doctor:

- Wash your hands before and after meals, and also after going to the toilet.
- Wash fruits and vegetables properly before eating them.
- Keep food and water in clean and covered containers.
- Avoid eating food items which are kept in open.
- Regularly cut your nails, clean your teeth, hair and body. All these keep germs away.
- Always drink clean water.

Do you know the different ways to clean water?
How to make water clean?

1. Boiling of water.
2. Filtration through muslin cloth.
3. Use of alum to clean water.
4. Using chlorine tablets.

Do you know how does the sun keep the germs away?
Simmi is recovering and is now back home from the hospital. She is curious about many posters she saw in hospital and has many questions after her conversation with the doctor. Mother finds a book which had many facts and gives it to Simmi to read.

Sunlight helps us in so many ways to keep germs away. We keep our quilts and mattresses in the sun.

**Simmi:** Yes Ma! This book says that the sun has ultraviolet rays which help to kill the germs.

**Mother:** Hmm...that is why we keep many things in the sun.
Simmi: But why are there so many complaints about water borne diseases in our village when sun shines so brightly there.

Mother: Have you seen the village pond. People are mostly using that water for their daily chores. They are not treating that water properly and hence, may be falling sick.

Simmi: How?

Mother: Pond is not only being used by humans but also by animals. Haven’t you seen animals too bathing and drinking water? Haven’t you seen people washing their clothes etc? This water is too dirty to drink,

Simmi: Now, I know that dirty water makes people sick.
**Mother:** Simmi, now it is the time to have your food. Do you remember what the doctor told you to eat?

**Simmi:** Yes, I remember, she asked me to take fruits like banana, boiled and peeled potatoes, *khichdi*, curd and most important is ORS (Oral Rehydration Solution). You can easily prepare that at home.

Let us know how ORS is prepared at home.

### Steps to prepare ORS

1. Boil and cool a glass of water.
2. Add a small spoon of sugar in it.
3. Put a pinch of salt.
4. Mix it well.

**ORS is ready!**
Simmi has recovered and now is back to school. She goes to the school library and asks the librarian for a book on germs.

**Let us read what was in the book.**

In 1674, Antoni van Leeuwenhoek in Holland liked to see things through microscope because things looked much bigger and clearer. He made one for himself. One day he thought of looking at a water drop collected from a puddle through his microscope. And a new world came alive.

This was the world of tiny creatures that we call microbes today. He was amazed to see countless creatures swimming in this one drop — tiny beings that no one had ever seen before.

Microbes are not only in our food but everywhere and all around.

Microbes can’t survive on their own. They need food. Once they enter a body like ours, they eat up the vitamins and other nutrients and multiply many times.

They leave behind poisonous material called toxins. Not all microbes are bad. Only some microbes can make you sick. People usually call these germs.
Simmi was happy to learn more about germs and how they can make us sick.

**DID YOU KNOW?**
The curd that we eat is actually a colony of microbes called **bacteria**, which are alive and thriving. Luckily, there are more harmless ones than harmful ones. Yes you are right. Curd has harmless bacteria and they help us digest food.

Now, it was time for the mid-day meal. Children were going to have their lunch.

**Tara Ma'am:** Children. All of you please go and wash your hands before having your food.

Simmi’s friend Billu does not pay any attention and quietly goes to collect his share of meals.

Simmi asks Billu to come for handwash.

**Billu:** (shows his hands) My hands are clean. See. Why should I wash?

**Simmi:** Billu, our hands seem to be clean but they get dirty when we touch anything. Germs that we cannot see stick to them.

Tara Ma'am heard their conversation and asked Billu to wash his hands.

Do you also wash hands before meals?
Next day before the mid-day meal, Tara Ma'am took some tap water in a bucket to the class. She also took a mug and another empty bucket. She asked each child to come forward and rinse their hands into the empty bucket. Soon the colour of the water changed and it became dirty.

Billu wondered how did the water get dirty? Can you answer?

Now, I know there is always some dirt in our hands and yes in nails too!
Tara Ma'am: How can we use this water?
Amjad: Ma'am, we can water the plants.
Sonica: Ma'am we can also use it in the toilet.

Hope you all wash your hands before and after having your mid-day meal.
Simmi noticed that her friend Billu was getting uncomfortable. He was not talking to her.

**Simmi:** Billu. What happened? You look so dull.

**Billu:** I don't know how to use the toilet properly. Heera Ma'am would be on her round and again she would scold me as usual for not using the toilet properly.
Simmi: Why don't you use the toilet properly then?

Billu: I am scared that I would fall in the toilet pit!

Simmi: How stupid? And now I know it is you and many of our friends like you who make our toilets so dirty by not using the toilet properly. Don't be scared. Be responsible.

Let us now see how to be responsible.

- Use the toilet by sitting properly.
- Always flush it with water after use.
- Wash yourself properly.
- Wash yours hands thoroughly.

**LEAVE THE TOILET AS CLEAN AS YOU WANT IT FOR YOURSELF.**

**ON GANDHIJI’S 150th BIRTHDAY, THE SWACCH BHARAT ABHIYAN WAS LAUNCHED. IT IS TO HELP US REALISE THAT CLEANLINESS IS EVERYONE’S DUTY AND RESPONSIBILITY.**
Did You Know?
What do you do if there is no soap? One can use ash or sand, which is easily available.

The toilets in Leh do not have a flush system. The area is a cold desert and has water scarcity. People, mostly ladies and girls go long distances to fetch water. Due to this reason girls cannot even attend school. Water is very precious for them. They do not have flush system as it uses lots of water. These people use minimum water which drains the waste into the pit. When it is full, people cover it with soil so that the waste gets converted to compost. It is very good for plants and is used on the farms.

Different kinds of toilets used in Leh and Ladakh.
DID YOU KNOW?

Gandhiji and all his guests in Sabarmati ashram cleaned the toilets themselves. There was no need of any help to clean toilets and the whole ashram was kept clean as all worked together.

Do you leave the toilet as clean as you want it for yourself?
मिल-जुल कर स्कूल में जाएँ, शादी पड़े और शाद में खाएँ। रंग-बिरंगी प्यारी दुनिया, शाद मिलकर हमें लजाएँ।