



The Thinking Classroom

Lesson Plans for Primary Teachers

The Thinking Classroom **A Guide for Teachers**

Introduction

This module containing seven primary level lesson plans (LPs) will lead you towards transforming your classroom into a Thinking Classroom.

The Aims of Education

“To educate Pakistanis to be:

- Seekers of truth and knowledge who can apply both for the progress of society;
- Creative, constructive, communicative and reflective individuals;
- Disciplined, productive, moderate and enlightened citizens;
- Capable of effectively participating in the highly competitive global knowledge-based economy and the information age; citizens committed to creating a just civil society that respects diversity of views, beliefs and faiths.”

(Ministry of Education, Government of Pakistan, 2006)

So with these aims, surely we need to change something in the way we teach!

Why we need Critical Thinking (CT)

Everyone thinks, but a lot of it is biased, distorted and uninformed. The quality of our life and what we create and build and the decisions we make depend on how we think. Poor thinking and lack of CT can lead us to many poor decisions.

What does CT entail?

- Assessing, analysing and reconstructing any problem, situation or content
- Making informed decisions
- Logical thinking and reasoning
- Being able to create and innovate; build something new and original
- Out of the box thinking and questioning deeply from different perspectives
- Thinking about thinking & how to improve it

Why it is difficult to be Critical Thinkers in our school system

- Too many facts
- Too much memorising and too little thinking
- Lecture and rote memorisation, which does not require critical thinking
- Students are not “trained” to think

Teaching Framework for the TTC Lesson Plans

You probably teach one new concept (or chapter) for one or maybe two weeks. We have developed these LPs on the premise that it is one five-day week. If it is two, or you carry on until the children have understood, you can explore the concept in more depth.

A suggestion for the Five-Day LP is that for the first three days you deliver the content from your textbook the way you always do and then spend the next two days on CT and active learning. Active learning is when children are engaged in hands-on activities and in making sense and meaning of the content themselves rather than listening passively to a teacher’s lecture on a topic. Some examples of active learning are: classroom discussions, small group work, working with materials, debates on an idea, problem solving and listing ideas, making presentations. So, how about creating some excitement in your classroom with active learning.

Guidelines for You the Teacher

Young children are not too young for complex concepts

You may think that some of the ideas or concepts being introduced in these LPs are too difficult for such young children. In reality, however, we are introducing them to ideas that they are already familiar with because they have either heard their parents talk about them or have heard someone else either in person or on television or radio. What we are doing here is giving them the opportunity to explore these ideas, to think about them in a focused manner. Please remember, we are not expecting them to give us correct, accurate answers.

Listen to and accept children’s answers no matter what

Let the children be inventive with their responses and if their answers sound amusing or strange, we still need to accept their answers and extend the conversation. Concepts are constructed gradually

over time by exploring their attributes and thinking critically about them and coming to our own understanding of them. Both children and adults go through this process when they encounter something new. The something new can be either concrete or abstract.

Engage with the children

It is important for teachers to create a climate of trust and comfort where the children don't feel threatened or inhibited. Talk to them conversationally, ask after them and show them that you are interested in them as individuals. When the activity says make a circle, you need to decide what will be most appropriate for that activity, whether to sit or stand in a circle and you should sit or stand with them.

Give children space and time to think

During discussions, remember that some children may need a little time and positive encouragement to express their thoughts and some may prefer to remain quiet for a few seconds or minutes. Do provide waiting time after asking a question to give less confident children an opportunity to formulate their responses. Remember to smile or laugh when something is funny. Your facial expressions should match what you are saying and remember to speak in a soft, natural, conversational tone.

Planning the lesson for the week ahead

As the teacher, you understand your local context, what your children can do and what their interests are. You also know how much space you have in your classroom and what resources are available to you, so it is up to you to decide how to implement the active learning CT LP in your classroom. Do please read through the entire LP carefully and decide before the new week begins, what to do each day for the week ahead and also prepare all the materials you will need.

Time required for the LP

We have not mentioned a time frame in each lesson plan but it will probably take about 80 to 90 and in some cases about 110 minutes, spread over two days. It depends on you, the number of children you have in class and your timetable. You may need more or less.

Group size

Some segments of the plan require the entire class and no small groups. When you need to divide them into groups, and the LP says divide the children into groups of five you can do this easily if you have 25 children present that day. If you have one or two children left, it is not a problem, just accommodate them into any group. If you have 36 children, you can divide them into groups of six.

Group roles

It is a good idea to assign roles to the members of each group so that everyone knows what to do. The entire group must participate and share their ideas and views and if the task calls for more roles than listed here, please go ahead and delegate the tasks. There must be:

A **timekeeper** who makes sure the work is done in the timeframe that you have given them.

A **note taker** who listens to what group members are saying and writes down everything based on the task you have given them.

A **presenter** who will present the group's work when everyone has finished and you give the signal to present.

Structure of The Thinking Classroom Lesson Plan

Each LP for Classes 1 to 5, ECE and Multi-age follow a similar structure. The ECE LPs have a couple of additional features that are not in the Primary Level LPs. These are differentiated with an * at the beginning. All the modules and topics are linked to The National Curricula, developed by the MoE, Government of Pakistan, 2006-07.

This is how the LPs have been structured:

1. Curriculum Link: The link is stated exactly as it is in the relevant curriculum. The Student Learning Outcomes (SLOs Primary Level) and Expected Learning Outcomes (ELOs ECE) and page numbers are mentioned so that you can find it easily in the document. In certain curriculum documents bullet points have been used to separate SLOs, in others letters and in some roman numerals have been used. We have used these exactly as they are in the respective curriculum. The SLOs and ELOs may not be in sequence, for example, i ii iii or a b c. This is because all the SLOs and ELOs for one topic or theme are not addressed in one LP. So only those that are being addressed are mentioned. So you may see, i iv & viii or a d & g.

2. Students' Learning Outcomes: These are the same as the objectives in a LP. We are familiar with objectives and have been taught that before we plan a lesson we have to be clear about our objectives for that lesson. We have to think about what we hope the children will learn when we have completed that lesson. So the SLOs are the objectives of the plan.

* **Expected Learning Outcomes:** These are also the objectives of the lesson plan. So why use the word 'expected' instead of student? The NC-ECE charts out learning outcomes that young children are *expected* to achieve. Given the diverse developmental levels, learning styles and pace of learning, many children may not achieve all the outcomes (objectives) at the end of the lesson or even in the one year that they are in the ECE/pre-primary class. Therefore, the outcomes for this age level have been termed as "Expected" and educators and supervisors should not be overly concerned about children completing all the activities or meeting each and every outcome. This however does not mean that teachers should not support children's curiosity and learning, but that they should not force them to learn something they are not yet ready to learn. It is the process and not a 'perfect' product that's more important at this age and stage.

3. Prior Knowledge: Studies show that learning progresses primarily from prior knowledge, and only after that from the materials we present to students. Think about this. We teachers spend so much time gathering materials, which is important no doubt, and necessary too for good teaching, but only if we build on children's prior knowledge. Many of us are also guilty of hurrying through teaching some concept or skill, and not taking the time to slow down or ask the children what they already know about the concept or topic. So if we want to ensure that children make important mental connections about the content we are about to teach, we must build on prior knowledge.

4. Resource Requirements & Preparation: This part of the LP will tell you what materials you will need to implement the lesson plan. To make it easier for you, it clearly indicates what you will need for the Three Phases of the LP: the Beginning, Middle and Conclusion (BMC phases) and what you need to prepare beforehand so that you don't waste any time during class. If the LP requires pictures of food, buildings, uses of water, anything at all, you can find pictures in calendars, diaries, newspapers and magazines. Don't forget to look online too. Whenever possible, please recycle! Save old magazines, newspapers, greeting cards and invitation cards and use these to make instruction cards and slips for group work. Empty biscuit and tea boxes and *gatta* are also handy for making resources. Empty shoeboxes are extremely handy for storage and they stack well too.

5. Methodology: Each LP is divided into three distinct phases based on a BMC Model. Here is a brief explanation on what each phase entails:

The **Beginning** Phase: In this phase, you can ask children to think about or ask questions about the topic. This phase will help you to:

- Informally assess what the children already know including any misconceptions
- Set the purpose for learning
- Focus attention on the topic

The **Middle** Phase: In this phase, you will lead children to explore the topic in more depth. They will engage in finding out, making sense of the material, answering their prior questions and finding new questions. This phase will help you and the children to:

- Revise expectations or raise new ones
- Identify the main points
- Make inferences about the material
- Make personal connections to the lessons

The **Conclusion** Phase: During this phase you will give children the opportunity to reflect on what they have learned, reflect on how their thoughts have changed and think about application of the new knowledge. This phase will help you and the children to:

- Summarize the main idea
- Share opinions
- Think about application

6. Assessment: This part will suggest ways in which you can assess what the children have learnt and evaluate whether the SLOs or objectives have been met. The assessment strategies suggested here are not traditional paper and pencil tests, but please do try out a different way of assessment.

*** Extension Activity:** In this section, you will find some activities you can engage the children in at a later stage. As the heading suggests, these activities will help children explore the ideas in the LP in different ways thereby helping them understand the concept better.

*** A Note for the Teacher:** Under this heading you will find tips to help you understand how to address the topic with young children or how you can work on the same concept throughout the year.

CT Questioning Techniques

Throughout the LPs you will see a reference to CT questioning techniques. In the questions below some names of girls and boys have been used. Needless to say, these are only examples; replace these names with names of children in your class. Try and make sure that you address each child over the course of a few days so that nobody feels left out. You can follow these steps to involve children in thinking critically.

Ask open-ended questions: These are questions that invite more than one plausible answer. They have no right answer and no wrong answer either. You need to listen to and 'accept' all answers. Open-ended questions allow the formulation of any answer, rather than a selection from a set of possible answers in the questioner's mind.

Ask follow-up questions: These are questions you will ask after one child has responded to a question, for example, "What can you add Nida?" or "What is your opinion, Omar?"

Provide feedback that neither confirms nor denies children's responses: If you provide this kind of feedback, then the discussion remains open. For example: "That is very interesting ... I hadn't thought about that before."

Survey the other children: This kind of questioning also takes place after a child has responded to a question. Rather than you saying that it is correct or incorrect, survey the children by asking, "Who agrees with Ali?" "Who disagrees with him?" "Why?" Tell them it is okay to agree or disagree as long as we don't hurt anyone's feelings and do it in a polite way. It does not mean we don't like the person we disagree with.

Encourage children to direct questions to other children: You can do this by saying, "Omar, ask Komal if she can add something to your response?"

Use think-aloud: When a child comes up with a solution to a problem that has been posed as part of the lesson, you can ask, "How did you figure out that answer Tariq?"

Call on all children: Involve the entire class, not only those who raise their hands. But move on quickly to another child if someone chooses not to answer.

Assure the children that there are no wrong answers: Encourage everyone to have a go at answering a question by saying, "There are many possible answers to this question. Come on, give it a try!"

Encourage the children to be imaginative: Quite a few LPs suggest this approach. You can use it in other LPs too. Just relate it to the topic and say, "Imagine what would happen if...?"

It's All About Feelings

ECE

Curriculum Link: National Curriculum for Early Childhood Education, 2007. Key Learning Area: Health, Hygiene and Safety. Competency 3. Page 35.

Competency 3: Children will develop an understanding of the importance of safe, hygienic practices.

Expected Learning Outcomes

By the end of the year children will begin to develop the attitudes, knowledge and skills to:

- c. Identify and seek adult help if feeling unwell, hurt, unhappy or uncomfortable.

Prior Knowledge

Babies a couple of months old know the difference between what makes them feel good and what doesn't and this does not refer to just physical comfort, but to their emotions. As they grow and develop, from that first smile, children try to learn how to interact in ways that make them feel good about themselves. Young children are aware of what they are feeling but they often behave in unacceptable ways because they don't have the words or the vocabulary to express what they are feeling. Giving them the words and labels for these emotions and helping them to learn how to articulate their emotional needs and feelings will help tremendously in long term emotional well being and mental health.

Teaching Material & Preparation

- Beginning: A Set of Feelings Cards: happy, sad, angry, surprised, upset, scared, frustrated. Draw or take pictures of these expressions and you can even download them from the Internet.
- Middle: Any age appropriate storybook, which has several characters
- Conclusion: Small pieces of paper or recycled cards and crayons for each child

Methodology

- *Beginning:* Request the children to come and sit in a circle on the floor and sit down with them. Keep the Set of Feelings Cards in front of you. Take out one card at a time and talk about the expression and feeling that goes with the expression. Focus their attention to the eyes, eyebrows and mouth, which are very different when we experience different feelings. Draw their attention to yourself and say something like "I'm feeling a bit sad today because the *sabzi* I cooked last night had too much salt and nobody could eat it. See how my mouth and eyes turn down when I get sad." Ask the children to share experiences when they were happy or angry about something. Help them along to describe their facial expressions.
- *Middle:* Ask the children to sit comfortably and respectfully in a circle, giving everyone some space. Draw their attention to each other's expression to check if everyone is happily settled. Tell them to look at the expressions of the two people on either side of them to see if they are happy and comfortable. If they don't look happy, perhaps move a little to make sure they have enough space.

When all of them are ready, start telling them the story you have selected. As you read, refer to the different characters in the book and ask them to guess what the various characters are feeling. The questions below are examples:

- I wonder what the sister in the story is feeling? Can anyone tell me? How can you tell that she is feeling that way? Can you make a face that shows that feeling?
- Do you think the mother looks angry? How do you know? Let us all try and make an angry face.
- Is anyone feeling happy now? How do we make a happy face? What shape does my mouth make when I look happy? Can you tell? Come on, let us all make a happy face.
- The boy on this page here looks surprised! Do you agree with me? Look at his mouth! It looks a bit like a circle, doesn't it? Can you tell me what shape our mouths make when we are surprised?

- **Conclusion:** To conclude this activity, ask the children to sit comfortably and tell them that they will now draw their own feeling card just like the ones we saw earlier. Then give each one some crayons and paper/recycled card. Encourage them to draw a circle for a face and then inside they can draw the eyes, eyebrows, nose, mouth and so on.

After they have done their drawing, encourage them to act out the feeling they have drawn for the whole class or for you or for a friend to see. Some of them may not be comfortable acting in front of the whole class. Respect their feelings and tell them they can do it later if they like.

Extension Activity: Play a game of Mirror Faces. Get the children to line up in pairs that face each other. One line of children will pretend they are looking in the mirror and their partners opposite them pretend to be their reflection. The child looking at the mirror makes a face to show one of the emotions and the reflection has to copy the emotion with his/her own face.

A Note for the Teacher: It is important for you to encourage children to be keen observers and be aware of how their friends and peers are feeling. You can do this during different times of the day, including snack time. Talk about something that happened in your life that made you feel happy, sad, surprised or scared. Talk about what you did to feel better. This is called labeling one's emotions. For example, "I feel so frustrated because I cannot open this bottle of paint." Throughout the day, help children express their own emotions. For example, "It looks like you are so happy that your friend shared her crayons with you. Did you remember to say thank you?" "It looks like you are feeling angry that we can't go outdoors to play now. What can we do to help make you feel better?"

Our Five Senses

Class 1

Curriculum Link: National Curriculum for General Knowledge Grades I – III 2007. Myself. My Body. Page 12.

Students' Learning Outcomes

- Name the five senses.
- Identify the sensory descriptions of each of the five senses (**Taste**: sweet, sour, bitter, salty; **Touch**: smooth, hard, soft, rough, cold, warm, hot; **Hearing**: loud, soft, high, low; **Sight**: bright, dim and recognise colours; **Smell**: pleasant and unpleasant).

Prior Knowledge

Children learn about the world around them through their senses. In the same way, they learn about the different parts of their bodies and their functions, such as, we use our hands to touch or pick up things, our legs to take us to different places, our nose to help us to breathe and smell different odours or fragrances, our mouth to eat and talk and so on. They begin to understand their bodies better and how each part functions. They can name the major parts of their bodies such as eyes, nose, ears, mouth, arms, feet and legs. They can also identify the functions of various body parts.

Teaching Material & Preparation

- Beginning: Board and chalk
- Middle: Children's notebooks and pencils. Five Sets of Sensory Objects related to the five senses. Please see page 8 for sample list.
- Conclusion: Board and chalk

Methodology

- *Beginning:* Write the words 'Our Body' on the board and ask the children, "What comes to your mind when you see these two words?" Give children time to respond, listen to them and then say, "Let's write your response on the board" and start writing what the children say on the board. If any word or body part is repeated say, "We already have that here." Then ask if they can think of any other part of the body.

Read out the names of the body parts listed on the board. If the list has eyes, nose, ears, tongue and skin then tell the children, "Now we will learn more about these parts." If not, write the body parts that were not mentioned on the board and say, "We forgot these. Let us add them."

- *Middle:* Divide the children into five groups. Assign one sense to each group.

Tell the children that you will give each group a set of objects and that they have to carefully examine and explore the objects. Tell them that they will get 10 minutes to examine and explore after which you will signal for them to stop. Tell them that you will then ask one person from each group to share what they did in the ten minutes. The person will have to tell everyone which part of the body was assigned to their group, what they did and what they learnt about the objects. Repeat the instructions if necessary.

Distribute the Five Sets of Sensory Objects so that each group gets one. Circulate amongst the groups listening to what the children are talking about as they explore and examine their Set of Sensory Objects.

After 10 minutes, signal for them to stop. Ask each group to tell the rest of the class which part of the body was assigned to them, what they did and what they learnt from their Set of Sensory Objects.

Ask the children to open their notebooks and draw the part of the body assigned to them and their Set of Sensory Objects.

As the children finish drawing, give them some time to explore the other sets too. If you have run out of time, do give them the opportunity to explore the remaining Set of Sensory Objects the next day.

To bring this activity to an end, have a brief conversation about it with the children. Ask them questions such as:

- What did you find most interesting about the activity?
 - Did you feel something really nice or strange or painful when you smelled or touched, or saw or heard or tasted one of the objects? Which one would you like to talk about?
 - Can you think of another time when you had a similar feeling or reaction when you smelled or touched, or saw or heard or tasted something?
 - Suppose something happens to someone's eyes and they can't see, how would they know what is in front of them?
 - If you are inside the house and it starts raining, how do you know it is raining without going outside?
- **Conclusion:** Review the lesson on the Five Senses. If the children have any questions, address those first. And then divide the children into the same 5 groups.

In a conversational tone say to the children, "You saw how our body helps us in different ways. We need to look after these parts of our body, don't we? How do you think we can do that?" Wait for the children's responses and then tell them that you will assign one part of the body to each group again. Ask them to discuss in their group how they can look after the assigned part, after which each group will share what they talked about. Tell them that you will write down some of their suggestions on the board in order to make a list of ways to look after our body.

After 10 minutes, write down the children's suggestions. As you make the list on 'Looking After Our Bodies' on the board, you can ask the following questions:

- Do you think we should use medicines without asking a doctor?
- What would happen if we put a tiny object like a bead or a small eraser into our nose or ears?
- What do you think might happen if we eat or drink something that is very hot or something that is very cold?

Assessment: The work/drawings done by children in their notebooks can be used to assess their learning of this topic.

Five Sets of Sensory Objects

Set 1: Sound Boxes: Four or five empty boxes of different kinds with various small objects in each such as coins, pebbles, paper clips and anything else you can think of. Children have to shake these and figure out what is in the box without looking.

Set 2: Things to Smell: A cotton ball soaked in *attar*, an artificial flower, a small piece of ginger, a lemon and an onion.

Set 3: Things to See: A few clear and hazy pictures for children to look at and identify differences, objects of different shapes, colours and sizes to identify visible differences.

Set 4: Feely Bag: A sponge, a cotton ball, one rough and one smooth piece of cloth, a ball and a scrap of sandpaper. Tell the children, they have to put their hands into the Feely Bag and pick up one object at a time and tell what it is without looking in the bag.

Set 5: Food to Taste: Small bowls with salt and sugar and other easily available foods of different flavours for children to taste. Use only those foods that are safe and appropriate for children. Please keep an eye on children with allergies.

Please note that these are suggestions and you can use different objects if you choose to.

The Food We Eat

Class 2

Curriculum Link: National Curriculum for General Knowledge, Grades I – III, 2007. The Natural Environment. Plants. Page 24.

Students' Learning Outcomes

- Identify the ways in which plants are used (food, shelter, clothing etc.).

Prior Knowledge

Every family has their own food culture that includes the different types of food, combination of foods, recipes and even special occasions when different foods are cooked. Children develop food preferences based on their experiences. They already have some idea that we get food from plants and animals and that water is essential for all living things. In previous classes, they have learned the names of body parts and their basic functions. They still need to understand the link between food and the functions of different parts of the human body.

Teaching Material & Preparation

- Beginning: Board, chalk, paper and pencil
- Middle: Recycled paper or cards to write the names of the following food groups: Pulses & Cereals, Vegetables & Fruits, Milk & Dairy and Meat. Four sheets of paper, one for each group and pencils
- Conclusion: No materials required

Methodology

- Beginning:* Have a discussion on the different types of food we eat by saying "What did you eat for dinner last night?" You can share what you ate and give them the opportunity to share what they ate. Continue the discussion and say, "Now all of us will shut our eyes for a few seconds and think about the different foods we eat every day. I am also going to shut my eyes and think." Get everyone to shut their eyes and you should do the same.

Ask them to open their eyes and share the foods they thought about, one by one. List the names of all the foods the children come up with and share the foods you thought about, on the board. Ask if anyone wants to add more foods to the list.

Tell them that you will divide the class into two groups. Using the list on the board, one group, called the 'Animal Group' will make a list on a sheet of paper of the foods that come from animals. The other group, called the 'Plant Group' will make a list of the foods that come from plants.

Then divide the class into two groups and give them a few minutes for this task. Encourage them to add more foods to their list.

After they are done, ask one presenter from each group to share the list with the entire class. If they have added any new foods to their lists, then add those to the list on the board. It will be useful for the next activity.

- Middle:* Introduce the group activity by telling the children that you will divide them into four groups and will give each group a card with the name of a food group written on it. They will look at the list of different foods on the board, and decide which foods can be included in the food group that they have been assigned. They will then write down the names of these foods on a sheet of paper.

Divide the children into groups and give them the Food Group cards. Also give each group a sheet of paper and pencil. Let them discuss, sort and categorise the foods according to the food group they have been given.

When all the groups have finished the task, ask them to read out their food group and the list of foods in that category. Ask other children if they agree with the way the foods have been sorted and categorised.

Now, talk to the children about what the different food groups do for the human body. For instance, foods in the Meat Group help our body to grow strong; foods in the Pulses & Cereals Group give us energy to work and play; foods in the Milk and Diary Group make our bones and teeth strong and

healthy and foods in the Fruit & Vegetable Group help us to fight against diseases. Also talk about having a balanced diet, which means that every meal consists of foods from all the groups.

- **Conclusion:** Initiate a discussion with the whole class, about the need to keep our body and body parts healthy. Here are some questions you can ask:

- Can anyone tell us why we need to keep our bodies healthy? And what about the different parts of our body? Why do we need to keep our teeth, legs, eyes, nose, ears, brain, heart and stomach, healthy?

Ask about each of these parts and how each one helps us.

- Does anyone know what would happen if your bones were not strong and healthy?

I wonder if it would affect our daily routine. Would it? Let us talk about how it would affect us.

- What would happen to a person who has tooth decay? What problems do you think he/she would face?

- Does anyone know what would happen if we ate only one type of food every day?

- Let us think about whether eating healthy food is enough for good health. Does anyone have any ideas? What else do you think we need to do?

Conclude the discussion by talking about eating a balanced diet, exercising on a regular basis and keeping our bodies and our environment clean.

Assessment: To assess children's learning of this topic get them to make a menu choosing three items, each from a different food group talked about in the class and give a reason for choosing the selected group.

Keeping Ourselves Healthy

Class 3

Curriculum Link: National Curriculum for General Knowledge, Grades I – III, 2007. Natural, Human and Capital Resources. Food and Feeding, page 31.

Students' Learning Outcomes

All the students will be able to:

- Recognise that healthy living requires eating a balanced diet, keeping clean, getting a good night's sleep and exercising regularly.
- Identify the ways to get sufficient exercise to stay healthy.

Prior Knowledge

Children observe and experience the different practices and lifestyles of their family and neighbourhood, which include eating habits and daily routines. They have learned about the sources of food, such as plants and animals. In previous classes, they have also learned about the ways to keep themselves clean. They are reminded on a regular basis, by their parents and teachers to take care of their personal hygiene and cleanliness, but they might not always see people around them practicing these healthy habits.

Teaching Material & Preparation:

- Beginning: One large sheet of paper and marker on which you will write 'Checklist of Healthy Practices' in large handwriting. Please see sample checklist on page 12. Tape for attaching the checklist to the board, notebooks and pencils
- Middle: Chalk and board, six strips of paper or cards with the Sample Statements for Consequences of Poor Health Habits written on them. Please see page 12 for the statements. Sheets of paper for each group and pencils.
- Conclusion: Notebooks and pencils.

Methodology

- *Beginning:* Begin by telling the children, "Today we are going to examine our healthy practices using a checklist that I will put on the board." Tell them that they will have to read each statement written on the list and then take a few seconds to think about it. They will then have to write in their notebooks the number of the statement and put an √ or an X against each statement, depending on whether they follow those practices or not. So the children will put a √ against something they do regularly and an X against something they do not do regularly. Tell them that they have 10 minutes for this activity, after which there will be a discussion. Tell them that you are also going to examine your own healthy practices through this checklist.

Put the checklist up on the board and ask children to begin working. When the children have finished, discuss the results. Read the statements one by one and ask, "How many of you marked √ and how many marked X for Statement Number 1?" Ask children to raise their hands for both marks. Write the total number of √ and X next to each statement. Carry on like this through to Statement Number 14. To conclude this part of the plan, discuss the results of the Healthy Practices Checklist.

- *Middle:* Begin the group discussion by saying "Now that we know how many of us practice healthy habits, let us discuss the consequences of not practicing these habits." Divide the class into six groups and tell them that each group will get a statement to discuss and a paper to jot down their thoughts to share with the class.

On the board, write: "What would happen if I..." Give each group a strip with one of the statements written on it for discussion and one sheet of paper and a pencil. Tell them that they will have 5 minutes for a group discussion in which they will discuss the consequences of not practicing these habits and one person in the group will write the points that the group will share with the whole class.

When they are done, invite each group to share their points. As the children share, listen to them carefully and extend the discussion by using the critical thinking technique.

- **Conclusion:** Introduce the individual work by saying “We have discussed some general healthy practices and discussed the consequences of not following these practices.” Tell the children that they will now make a plan for themselves to improve their health. Ask them to think about their daily routines such as, what they eat and when, how they spend their time, how they keep themselves clean, for example, bathing, brushing their teeth and trimming their nails.

Next ask them to think carefully about what they need to include or exclude from their daily food intake, how much time they need for sport/physical activity, how to regulate their sleep and how to remain clean. Ask them to keep their own results of the checklist in mind to see what they need to focus on in order to improve their healthy practices.

Give children time to think and make a plan. When they are done, ask them if they want to share their plans with others. They can share it with the child sitting next to them or if they prefer and time allows, with the entire class.

Conclude the session by asking the following questions:

- Do you think exercise or healthy food is enough to make a person healthy? Why or why not?
- What is the most important part of your own personal healthy practices’ list that you would like to share with others to improve their health?

Ask them to propose a variety of physical games that are also fun, to promote good health.

Assessment: The work that children have done individually in their notebooks can be used to assess their understanding of the topic.

Sample Checklist of Healthy Practices

	Practices	√	X
1.	I eat at least two types of vegetables each day		
2.	I eat at least two types of fruit each day		
3.	I drink/eat a dairy product once a day		
4.	I eat grains (bread / rice) twice a day		
5.	I eat meat/beans/eggs at least once a day		
6.	I drink about 6 glasses of water each day		
7.	I exercise for 30 minutes every day		
8.	I sleep 6-8 hours each night		
9.	I take a bath once a day		
10.	I brush my teeth twice a day		
11.	I trim my nails weekly		
12.	I wash my hands before I eat		
13.	I avoid excessive intake of soda drinks/cold drinks		
14.	I avoid <i>chhalia, supari</i> and <i>paan</i>		

Note: Please feel free to add more statements to this list. If you teach in an area where families cannot afford meat or fruit every day, change the statements and include what is possible and reasonable.

Sample Statements for Consequences of Poor Health Habits

1. Don’t get 6 - 8 hours of sleep daily
2. Drink very little water in a day
3. Don’t keep myself clean
4. Eat only one type of food everyday
5. Don’t exercise or do physical activity
6. Eat lots of unhealthy food

What am I?

Class 4

Curriculum Link: National Curriculum for General Science, Grades IV – VIII, 2006. Understanding Ourselves, page 28.

Students' Learning Outcomes

All the students will be able to:

- Identify common disorders of various parts of the body and their cause
- Suggest ways to keep parts of their body healthy

Prior Knowledge

Students in Class 4 are well aware of the human body and understand that different parts of the body have distinct functions. They have studied how important food is in the growth and development of the body and the importance of nutrition in the proper functioning of the different organs. They know that in order to lead a healthy life they need to have a balanced diet, follow good hygienic practices, sleep well and lead an active life. They have learned of ways to keep themselves healthy.

Teaching Material & Preparation

- Beginning: Human Body Riddles. Please see page 14 for examples. Strips of paper with the following words written on them: *brain, heart, teeth, stomach, bones, eyes* and *ears*. Fold the strips and place them in a small basket.
- Middle: Ahmed's Story copied on three pieces of paper, and three sheets of paper for children to write on. Please see page 14 for the story.
- Conclusion: Three large sheets of paper and three markers, one for each group.

Methodology

- *Beginning:* Ask the children if they remember any riddles that they have heard or read. Let them share these with the class and encourage the other children to guess the answers. Then say "I have some riddles for you. Let's see if you can guess the answers."

Read out the three Human Body Riddles, one at a time and give children time to guess the answers. Then say, "What do you think we are going to talk about today?" Accept children's responses, which might focus around the human body and say to them, "Now it is your turn to make up some riddles, just like the riddles I asked you."

Next divide the class into 5 groups. Pass the basket with the folded strips around. Tell the class that each group has to pick one strip, which will have the name of a body part written on it. After this, each group will have to create a riddle about that body part and share it with the class. The other children will have to guess which part of the body the riddle is about. Repeat the instructions if necessary. Tell each group that they will get 10 minutes to create their riddle. Support them by saying that to create the riddles they need to think about what and how many clues they will put in the riddle and what they will do to make the riddle really interesting.

There are two extra strips in the basket and if a group finishes really quickly, let them attempt another riddle. When all the groups are done ask one person from each group to share their riddle one at a time while the other groups can guess which body part they are talking about. Conclude the riddle activity and move on to the next activity.

- *Middle:* Tell the children, "First, I will read you a short story about a boy named Ahmed. Then you will read through the story again in a group with a focus on a body part that I will assign to your group. Your task is to predict how Ahmed's lifestyle may affect the body part assigned to your group. You also have to predict some of the symptoms that he may develop." Check with the children if they have understood and repeat the instructions if necessary. Then divide the children into three groups and assign one of the following body parts to each group: teeth, skin and stomach.

Now read Ahmed's story to the class. After you have read the story, give children time to work on their group task.

Then ask each group for their prediction:

- What do you think has happened to Ahmed?
- Do you think he could have prevented what happened to him?
- How do you think he could have done that?

To sum up, ask:

- I wonder if any of you do what Ahmed did?
- How do you think we can be careful about what we do to our bodies?

For this brief discussion, use the critical thinking technique.

- **Conclusion:** Begin this phase by reviewing what has been done so far. Say to the children, "You have had a glimpse of Ahmed's life, discussed how his lifestyle may affect his health and predicted how it would affect his organs."

Next say to the children, "Now I want you to suggest ways Ahmed can look after his body in order to stay healthy. In the same three groups, you will make a list of Do's and Don'ts focusing on the body part assigned to your group." Give each group a large sheet of paper and a marker for the list. Give them 20 minutes to do this and move from group to group and support if required. When they are done, ask them to select a presenter for their group who will share their group's work with the whole class. Give each group five minutes to share. Encourage the class to interact with the group that is presenting. Their interactions should be focused on asking questions to seek clarity on something the presenter has said or on making suggestions, if an idea comes to their mind. Remember to use the critical thinking questioning techniques.

Assessment: To assess individual children's learning of this topic, ask them to make a list of five things they would incorporate in their daily routine to lead a healthy life. This can be done in their notebooks

Human Body Riddles

1. I am like a balloon. I fill up with air and supply oxygen to the body. What am I?
2. We help the body move. There are 600 of us and we can only pull not push. What are we?
3. I protect the body and cover it so things do not fall off. What am I?

Ahmed's Story

Ahmed, a Class 4 student, loves to eat *jalebis*. On his way home, he buys *jalebis* every second day after school. Today was not any different. On his way home after school, Ahmed stopped at a *mithai* shop to buy his usual quota of warm *jalebis*. He also saw a tray full of freshly fried *samosas*. Giving in to the delicious aroma of freshly fried *samosas* and *jalebis* Ahmed decided to buy both. The *jalebis* were so tempting that Ahmed just could not wait to get home. He sat down on a bench just outside the shop and began gobbling up the warm *jalebis* and also the *samosas*.

Close by there was a puddle of dirty gutter water, which was populated by all kinds of insects and mosquitoes. As Ahmed was enjoying his snack, the mosquitoes too had a feast on his body. By the time Ahmed reached home he had a rash all over his arms, legs and neck. Too full to have lunch, Ahmed lay down to take a nap and soon fell asleep. In the evening, he woke up and began vomiting and complaining of an aching stomach and heavy itching all over his body.

Protection from Infections

Class 5

Curriculum Link: National Curriculum for General Science, Grades IV – VIII, 2006. Microorganisms page 32.

Students' Learning Outcomes

- Identify ways by which microorganisms can enter the human body
- Suggest ways to avoid infections

Prior Knowledge

By the time they get to Class 5, children have studied the human body in great detail. They are familiar with the major parts of the body and their functions. They know what the body needs in order to grow and develop optimally and how to look after their body in order to stay healthy. They understand how the different body parts work together to benefit the body. In earlier lessons, they have been introduced to microorganisms, the main groups of microorganisms and have learnt about the advantages and disadvantages of microorganisms in their daily life. Lastly they have newly acquired knowledge on infections and how they impact the human body.

Teaching Material & Preparation:

- Beginning: No material required
- Middle: A picture and a card with related questions for each group. Please see Protection from Infection Questions on page 16 for the Picture Discussion. The picture descriptions are given below:

Group 1 Picture: A person washing her/his hands

Group 2 Picture: Food covered with flies and mosquitoes

Group 3 Picture: Food placed under a net

- Conclusion: Board and chalk and the Protection from Infection Situations & Consequences Table. Please see page 16. Five large sheets of paper and five markers, one for each group. Space and tape for a gallery display of the children's work.

Methodology

- *Beginning:* Ask the children to sit in a circle and then say, "Today we will do a Picture Discussion. You will do that in small groups. But before that let us think about the word 'consequences'."

Discuss the word 'consequences' with the children. Ask them what it means; an answer as simple as 'result' should also be accepted. The discussion can go on until you are satisfied that they understand what the word means.

- *Middle:* Divide the children into three groups and say to them, "I will give each group a picture and a card with some questions related to the picture for the group to think about and discuss." Tell them that they will get 15 minutes for the Picture Discussion after which they will share their points with the other groups. They can choose one or two members of their group to share the points for three minutes. Repeat the instructions if there is a need.

When the groups have shared their points, sum up by asking:

- Would anyone like to talk about what we learnt from the Picture Discussion?
 - Do you know what happened to the microorganisms in these three pictures?
- Where do you think they went?
- How can you be sure of their existence?
 - Do you think life would be any different if these microorganisms did not exist? Let us talk about this.

- Conclusion:** Reproduce the Protection from Infection Situation & Consequences Table on the board. Discuss the situations with the children and write down the consequences that they generate on the board, under the heading 'Consequences'.

After the Discussion Table has been filled, ask the children "What do you think could happen if we did nothing at all to keep ourselves clean?" Use the children's responses to sum up the activity.

Next, divide the children into small groups of five or six children. Tell them that you are going to give each group a large sheet of paper and a marker. Each group will have to make one list of four Healthy Habits and Practices. Remind them of the Healthy Habits you have discussed, if they don't remember. The children will make a list of what they will practice in their daily lives to avoid infections and to protect them from microorganisms.

Also ask them to draw a picture related to each of the Healthy Habits and Practices that have been listed. Let the groups decide who will be responsible for the drawing and who will do the writing. As the groups work together move from group to group, supporting children as and when needed. When all the groups are done, ask them to display their work and also give them some time to review the work done by other groups.

To sum up, ask the children to return to their places and share any thoughts they may have had while they were reviewing the work of other groups during the gallery display. Also ask them to share if they had any additional thoughts about their own work and how it could be improved.

Assessment: To assess each child's learning ask them to make a chart to show the habits of people in their homes and neighbourhood that may increase the risk of infections. Also mention how they could be convinced to stop such habits.

Protection from Infection Questions

Group 1	Group 2	Group 3
<ul style="list-style-type: none"> How many times a day do you wash your hands? When do you need to wash your hands? What will happen if you don't wash your hands when you need to? 	<ul style="list-style-type: none"> Would you like to eat the food shown in the picture? Why / why not? What could happen if you ate this food? 	<ul style="list-style-type: none"> Would you like to eat the food shown in the picture? Will you share it with your friends? What could happen if you or your friends ate this food?

Protection from Infection Situation & Consequences Table

Situation 1	Consequences	Situation 2	Consequences
I wash my hands		I don't wash my hands	
We keep our food covered		We leave our food uncovered	
We remove any water near flower pots, ditches and other areas near the house		We leave dirty water lying around	
We use safe sprays and mosquito repellents in our house		We don't use any sprays or powders to kill insects	

Keeping Healthy

Class: Multiage

Curriculum Link: National Curriculum for General Knowledge, Grades I – III, 2007.

Class 1: Myself. My Body. Page 12.

Class 2: The Natural Environment. Plants. Page 24.

Class 3: Natural, Human and Capital Resources. Food and Feeding. Page 31.

Curriculum Link: National Curriculum for General Science. Grades IV – VIII, 2006.

Class 4: Understanding Ourselves. Page 28.

Class 5: Microorganisms. Page 32.

Students' Learning Outcomes

- Identify the ways to get sufficient exercise to stay healthy
- Suggest ways to keep parts of their body healthy
- Suggest ways to avoid infections

Prior Knowledge

Children in any school come from different family backgrounds. Each family has its own culture that also includes food and lifestyle. The older children know that fruits and vegetables come from plants while meat and eggs come from different animals. They practice some basic healthy habits in their daily routines and are also reminded by parents and teachers about these on a regular basis. They also eat some healthy and unhealthy foods that occasionally cause illnesses. Therefore, using their prior knowledge, you can help them understand the importance of keeping oneself clean and healthy. You have children of different ages in your class and you can and should have activities in which all of them are involved at the same time. The younger ones and the older ones will be at different levels of development and understanding and will have different things to say and that is a huge advantage because they will all learn a lot from each other.

Teaching Material & Preparation

- Beginning: Board and chalk. 'Scenarios for Group Discussion' written on three separate pieces of paper or recycled cards. Please see page 18 for scenarios.
- Middle: Objects in the environment that the children can use for role-play
- Conclusion: Papers & pencils

Methodology

- *Beginning:* Introduce the group activity by saying: "We will work in three small groups and each group will get a scenario to read and discuss. I will write a few questions on the board. You will have to read the scenario and then discuss the answers of those questions in your group."

Divide the children into three mixed age groups and give each group a scenario. While the older children are reading out the scenario to the younger ones, you can write these questions on the board:

- In your view, what is the problem in the scenarios?
- What do you think could be the reasons for the problem?
- Can you think about what the child should do to avoid this problem?

Give the children ten minutes to discuss the scenario in their groups in light of the questions written on the board.

Move from group to group and encourage children, mainly the younger ones, to share their views based on their own experience and understanding.

- *Middle:* After all the groups are done with the discussion, introduce the role-play activity by saying: "Now, it is time for sharing!" Tell them that in order to present the points that they have discussed in their groups, they will have to perform a role-play. Ask them to decide in their group, which roles

they will play. Any one person in the group can play the child while the others can play a doctor, a parent, a teacher or a sibling. The rest of the group can help develop a plot and collect or make props if any.

Give children some time to rehearse and prepare. Encourage them to use the different objects in class as props for their role-play, such as: a chair, mat, table, any book or picture, *dupatta*, cap, purse and so on.

When all the groups are ready, invite them one by one to perform their role-play. After each group's performance, invite the audience to comment or ask questions. If they don't have any questions, you can ask the questions you wrote on the board earlier.

- **Conclusion:** Initiate a discussion with the whole class by saying: "We saw in the role-plays how Ahmed, Sadia and Fahad were suffering from different illnesses. Can you think of how we can avoid such problems? What should we do and what should we not do?"

Encourage children to share their ideas and suggestions in order to stay healthy. First of all talk about the Do's (what we should do) and then the Don'ts (what we should not do). You need to refer to these Do's and Don'ts from time to time.

Assessment: To assess individual children at different levels, give them the following tasks to do:

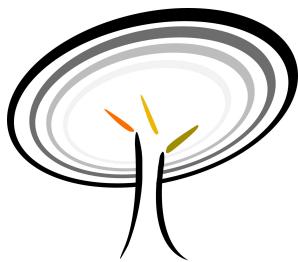
Class 1: Draw and show two things, one that is good for health and one that is bad.

Classes 2 & 3: Draw and write a few sentences/phrases about a healthy practice they will follow and an unhealthy one that they will stop.

Classes 4 & 5: Make a list of five do's and five don'ts that they will incorporate in their daily routines in order to lead a healthy life.

Scenarios for Group Discussion

1. Ahmed is fond of fried and spicy food and loves to watch TV. He likes to watch TV for hours on end. He is putting on weight. For the last few days, he has been constantly complaining about having an ache in his stomach.
2. Sadia loves sweets and *supari* and has some every day. Last night she just could not sleep because she had a terrible toothache. She is very upset, because she couldn't eat her favourite toffees and *supari* that she bought yesterday.
3. When Fahad came home from school he felt sick and vomited all over the room. He also passed some watery stool. He had not had breakfast in the morning before going to school. He was feeling very hungry, so he ate *aloo channa chat* from a hawker outside the school.



Teachers' Resource Centre
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