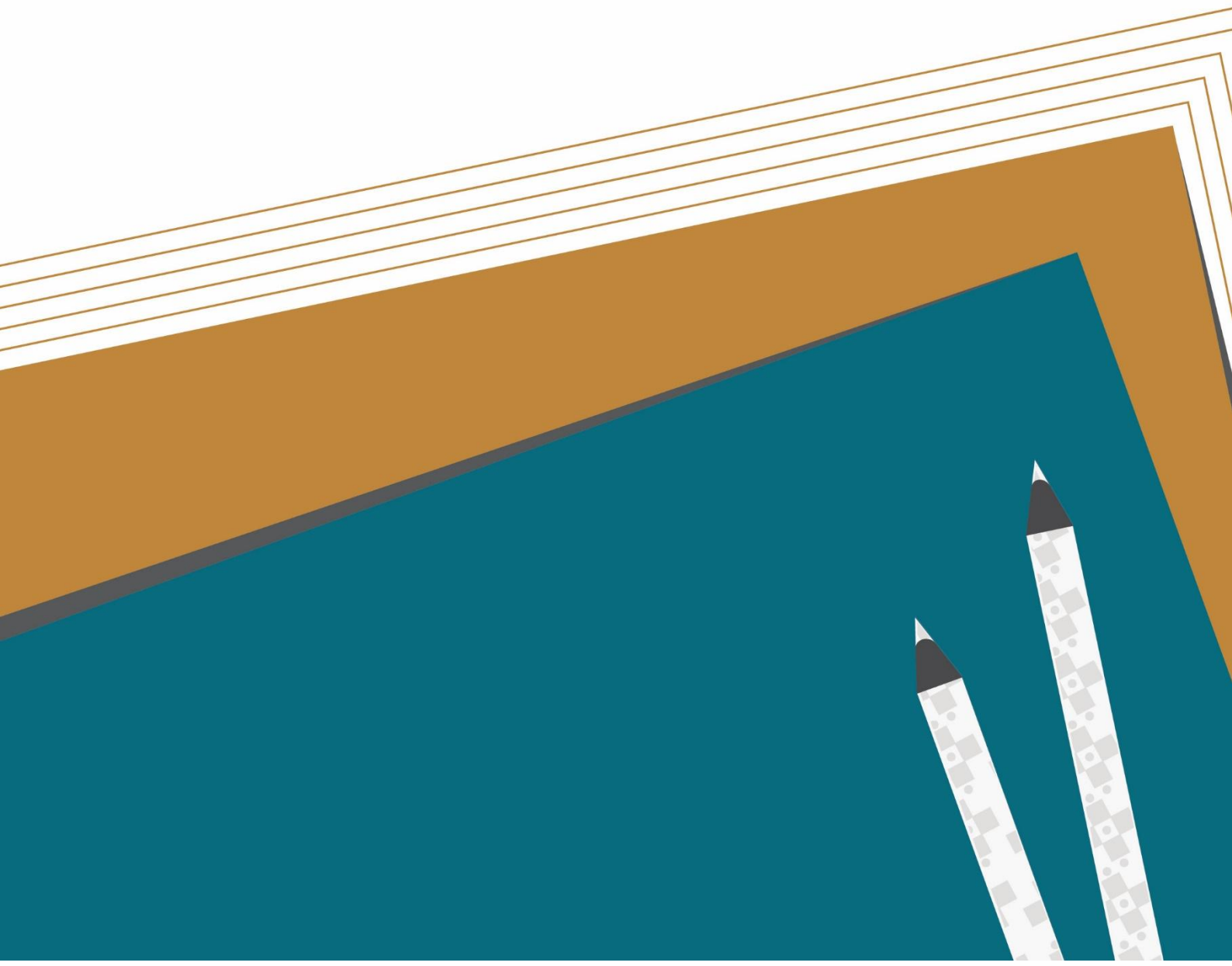


What Makes Assessments Authentic?



What Makes Assessments Authentic?ⁱ

Meaning of Authentic Assessments

Mrs. Dasgupta teaches Math in the preparatory stage. For the topic on fractions, she generally gives the students a paper-and-pencil test with questions that ask them to identify equivalent fractions and operations on fractions. The questions are multiple-choice and require the students to select the correct answer from a list of options. The test is timed, and she grades it based on how many correct answers her students provide. After the test, one of the students named Pakhi said to Mrs. Dasgupta, *"I understand the meaning of equivalent fractions and I can perform addition and subtraction with fractions- but I do not understand why I need to know these. I have never heard my parents using the word fraction at home neither I use it while talking with my friends."* Mrs. Dasgupta has earlier encountered this question from other students in her class too; this time she decided to do something about this situation.

The fundamental question in this scenario is whether we are clear about the knowledge, capacities, values, and dispositions we want to assess in a curricular area and their connection to the broader aims of education. The understanding of 'what of assessment' will essentially guide the 'how of assessment.' As Grant Wiggins states, *"Do we want to evaluate student problem-posing and problem-solving in Mathematics? Experiential research in science? Speaking, listening, facilitating a discussion? Doing document-based historical inquiry? Thoroughly revising a piece of imaginative writing until it works for the reader? Then let our assessment be built out of such exemplary intellectual challenges."* This statement also emphasizes students' ability to apply skills in real-world contexts. While it is challenging for a teacher to predict students' ability to use subject-specific skills outside the classroom, it is possible to design assessment tasks that reflect real-world tasks and expectations. Students find such tasks meaningful, and they provide teachers with more valid evidence of students' learning. *Such assessments that are aligned to real world tasks and expectations are called Authentic Assessments.*

This time, Mrs. Dasgupta assigned the students a project called "Design a Sustainable Garden" for assessing a few competencies across different subjects.

- Calculate area & perimeter, Collect, interpret & analyze data, Create budget
- Investigate plant species, Implement sustainable practices (water conservation, composting, etc.)
- Analyze local climate, topography and soil types; Understand social and cultural significance of gardens; Analyze cost benefits of garden construction
- Create designs, models, posters, etc.

For this project, the students were divided into small groups and tasked with designing a sustainable garden for their school. The project was scheduled to span the next six classes, and during this period, students would have regular opportunities to present their progress and receive feedback.

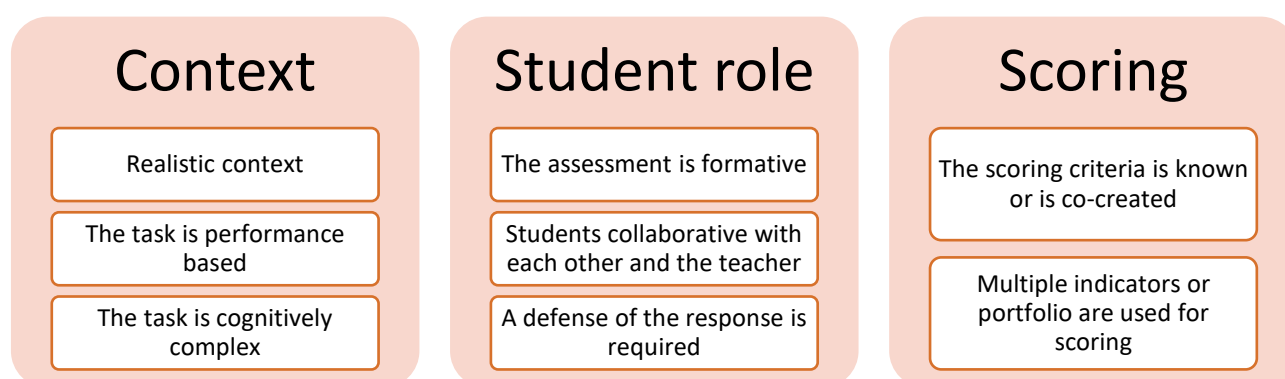
Each group's design needed to include several key elements: accurate measurements of the garden space, a detailed budget outlining the costs involved, and a plan for involving the community in the garden's development and maintenance. At the end of the project, the students were expected to present their final

designs to a panel of reviewers and explain and justify their design choices. Their work would be evaluated based on a rubric created collaboratively with the students.

Pakhi particularly enjoyed this project because it felt both realistic and practical. The tasks and challenges were similar to those encountered by professionals in the real world, which made the project feel more relevant and meaningful to her. This real-world connection was significant for Pakhi and enhanced the overall experience of working on the assignment.

Characteristics of Authentic Assessments

Connecting assessments to real-world contexts does not necessarily make an assessment authentic; there are several other aspects to consider. In literature, authentic assessments are defined in a variety of ways, usually incorporating one or more of these eight characteristics, which can be grouped into three broad categories as follows: -



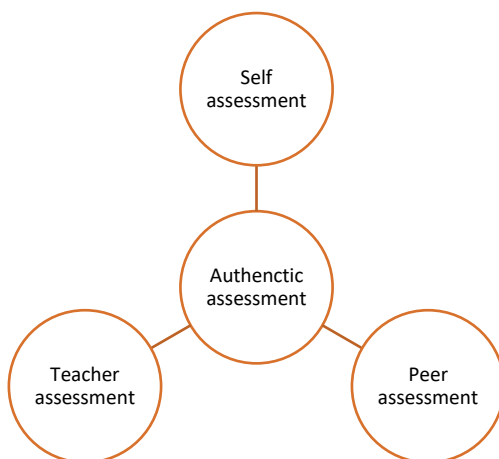
1. The context of the assessment

In the context of authentic assessment, a realistic context refers to creating assessment tasks that closely mirror real-world situations and challenges that students are likely to encounter outside the classroom. For example, instead of a theoretical math problem, students might work on budgeting for a community event, which reflects real-life financial planning or instead of defining the relationship between precipitation and temperature, students might be asked to keep a five-day record of precipitation and temperature for any five cities in India and graph the results. Through selecting a realistic context for assessment, more valid evidence of students learning can be gathered.

While all authentic assessments (AA) are performance-based assessments (PBA), the reverse is not true. PBA refers to the type of response being assessed, while AA refers to the context in which that response is performed. PBA involves having students perform or produce something for evaluation, which is intended to assess subject-specific knowledge, capacities, values, and dispositions. Authentic assessment focuses on the same aspects, but what makes an assessment authentic is not merely whether it involves lower-order or higher-order thinking skills. It is the context and approach of the assessment that determines its authenticity. Both PBA and AA are cognitively complex, as they assess students' abilities to apply, analyze, evaluate, and create.

Case 1	Case 2
Direct writing assessment is conducted in a month. For four days, all students at selected grade levels participate in a standardized series of activities to produce their writing samples. Using a scripted manual, teachers guide students through the assessment with limited teacher directions and extended student writing time (45 minutes) each day: Introduction and prewriting (Day 1); Rough drafting (Day 2); Revising and editing (Day 3) and finally copying and proof-reading (Day 4). The assessment clearly supports writing-as-a process instructional model.	Direct writing assessment is conducted in a month. Each student has conference with his/ her teacher to determine which paper from student's portfolio to submit for assessment purposes. The papers in the portfolio are not generated under standardized conditions, but rather, represent students' ongoing work over the year. All the papers were developed by the student with as much or as little time allocated to each of the writing-as-a-process stage as he or she saw fit.
Is this a PBA? Yes, students are producing writing samples. Is this an AA? No, in real life, individuals seldom write under the conditions imposed during standardized writing assessment.	Is this a PBA? Yes, students are producing writing samples. Is this an AA? Yes, students independently determined how long to spend on various stages of writing process, creating as many or as few drafts as they saw necessary to complete their final copies.
<i>Source: What's the difference between Performance Assessment and Authentic Assessment; Carol A Meyer</i>	

2. The role of the student



Formative and authentic assessments play complementary roles in the learning process. Authentic assessments involve complex, real-world tasks that typically require more time to complete. In this context, formative assessments are essential as they provide ongoing support and feedback throughout the learning journey.

Additionally, it is important to offer ample opportunities for peer and self-assessment, which help students reflect on their own and each other's work. Thus, authentic assessment is operationalized through a three-pronged approach: self-assessment, peer assessment, and teacher assessment. These three sources of assessment provide meaningful feedback and summative evaluations from multiple perspectives, making the assessment process multidimensional. Through a series of such informal and formal assessments, students are expected to defend their choices. The choices can be in terms of selection of material used for a project, questions designed for a survey, choosing the artifact from portfolio for evaluation, the mode of presentation, etc. A central role for students in the assessment process ensures fairness by actively involving them in various aspects of their evaluation.

Authentic assessments are often conducted as group projects because real-world tasks are frequently shared among team members. Working on group projects allows students to experience a simulated team environment, where they can enhance various interpersonal skills such as collaboration, communication, conflict resolution, and accountability. Additionally, since authentic assessments involve cognitively complex tasks, working in groups enables students to pool their individual strengths and expertise, leading to higher-quality outcomes.

3. The scoring of authentic assessment tasks

Authentic assessment tasks emphasize evaluating both the *process and the product of learning*. The process of learning refers to the methods and strategies students use while engaging in a task. This includes their approach to problem-solving, planning, decision-making, and their ability to reflect on and revise their work. The product of learning is the final outcome or artifact that students produce as a result of their learning, such as a project, presentation, report, or any other tangible result of their efforts.

Collecting evidence from both the process and product provides a comprehensive view of student learning. This evidence can include drafts, reflections, self-assessment, peer feedback, and observations of student interactions and problem-solving approaches. Teachers need a systematic approach to observe students as they work through their tasks. This involves noting their engagement, strategies, problem-solving techniques, and responses to challenges and feedback. Maintaining detailed records of students' progress includes documenting observations and tracking their learning over time. Portfolio assessments are often planned to record the ongoing process of learning. A portfolio is a purposeful, interrelated collection of student work that showcases their efforts, progress, and achievements in one or more areas. The collection typically includes student participation in selecting contents, criteria for selection, criteria for judging merit, and evidence of self-reflection.

Clear and consistent criteria for assessment are essential for evaluating both the process and product. These criteria should be co-created with students, communicated in advance, and aligned with subject-specific competencies. This ensures that assessments are fair and that students understand how their work will be evaluated. Gathering multiple evidence of students learning and having comprehensive rubric will ensure both fairness and reliability of assessment.

Planning & Designing Authentic Assessments

Authentic assessments can be designed through- identifying a set of competencies across subjects which have a better scope of assessing through authentic approaches, designing authentic tasks (projects, presentations, debates, portfolios, simulations, experiments, role plays, artistic performances, etc.) and designing schemes for observing and recording students' progress (rubrics, rating scales, checklists, observation checklists for anecdotal records, etc).



Project-based learning is one of the frequently practiced methods for doing authentic assessments. Below is an example of planning and designing authentic assessment at Foundational stage-

1. Scope of the Project:		
Grade/ age group:	Grade 2	
Domains covered:	Socio-emotional and ethical	
Time Duration:	20 days (4 weeks) + 2 days for context setting (pre-project).	
Group Size:	20 (approx.)	
Description of the Project:	The project is on nurturing a plant and maintaining a plant journal. It is a 20 days’ project where children plant a seed/ sapling and nurture its growth and in the process develop empathy with friendship with it. Taking care of the plant will happen in pairs but the journals will be maintained individually. The teacher will guide and facilitate the entire process, take out time regularly for this project from within the daily timetable. The teacher will take help from the school gardener to take care of the plants as an additional support to the children.	
2. Competencies & Learning Outcomes:		
Subject	Competency	Learning Outcome
Domain: Socio-emotional and ethical	C-4.6: Shows kindness and helpfulness to others (including animals, plants) when they are in need.	- Shows care and tenderness in dealing with other living things. - Works in common tasks with kindness and affection to others in the group.
3. Instruction for Students:		
Step 1 (Setting the Context): The teacher can read out stories with plants and tress like ‘<i>Avani and the Pea Plant</i>’ (Avani and the Pea Plant (storyweaver.org.in)) and ‘<i>The Plant Whisperer</i>’ (The Plant Whisperer (storyweaver.org.in)) and try to develop a feeling of bonding with plants through discussion and critical questioning. Step 2 (Introducing the Project: Plantation): Day 1- In the school’s field or garden the teacher can do a plantation activity where each pair of children will be given a seed to sow and then observe how the seed becomes a sapling and then grows into a bigger plant. Step 3 (Introducing the Project: Plant-Friend Journal): Days 2-3- The children will be given copies to maintain. It will become a journal on Plant-Friend. Each child will have to write and draw every detail of the plant’s growth in their journal every day and the effort and input s/he has provided each day to take care of the plant. For example, when did the first leaves come out, when did the flower buds start to bloom, when did a butterfly come and sit on the plant and so on. There must be a journal entry every day. They will also write about their emotions and feelings		

while nurturing the plant. The teacher will develop a sample journal or share a sample journal created by children from other batches and orient these children well on what is expected from them regarding the journal entries.

The teacher will clearly explain the purpose and process of the project to the children. She will also set the norms of working in pairs. Every day during the closing circle time the children will be given half an hour to write/ draw about their plant-friend or their engagement with the plant-friend that day.

The teacher will select 4 students every day to go through their journals and give one-one-one feedback about the journal entries. She will encourage children think about different ways to make an entry, give attention to minute details of the engagement and relationship with the Plant-friend, share about their experiences of working with a friend as a team and so on... In case the comprehensiveness of the thoughts is not coming out through the writing or if the children are still not in the stage of writing complete sentences the teacher will write what the child shared underneath the child's writings.

Step 4 (Learning from the Expert): On day 6 the teacher will ask the school gardener to come and talk to the children during the project hour and show them a few tips on how to take care of the plant. Simple tips like, how much water to pour, pluck the dead leaves etc. that they can follow regularly.

Step 5 (Circle-Time Discussion): On day 10 when the sapling is quite visible the teacher will take this up in the morning circle time conversation; where she will ask children to talk about their experiences of how it felt to nurture a sapling. She can ask questions like

- How do you like taking care of the plant?
- Share what do you do every day to take care of the plant with your friend?
- What do you need to do to help the plant grow further?

Then she will ask each pair to draw a picture of their plant on the journal cover and decide on a name for their plant-friend and share it with others. Each pair will then make a small name-placard and put it in front of the respective saplings.

Step 6 (Self-assessment): On the day 12, the teacher will do an exhibition of the plant journals for children of that class. There will be a display of the journals, and each child can pick and read journals of other children and self-reflect. The points for self-reflection would be how others have written about their plant-friend, is there any interesting or different way in which they have made a journal entry, drawn about the journey or the plant friend, did I capture all the details in my journal, is there any idea that I can adopt in my journal. The teacher will have to model the activity well before it starts and post the exhibition, she will help each child to reflect and share their thoughts about their journal.

Step 7 (Nature Walk): On day 14, the teacher will take the children out for a Nature Walk in a nearby field or a garden. She will try and observe how the children are treating other plants which they have not nurtured on their own. She will ask probing questions to find out their thoughts and attitude towards all other plants around.

Step 8 (Peer-Assessment): On day 15, again during the morning circle the teachers will ask the children that "Suppose there are visitors for the garden, and they want to see the plants then what will be your instruction for the visitors?" The teacher will adequately scaffold the children through cues and leading questions like, "Would you want the visitors to touch your plant? If yes, then how do you think they should touch the plant? If not, then write it as an instruction for the visitor" ...and so on. Once every pair is done developing their set of instructions two pairs will exchange their instructions and peer-assess each other's task. The only criteria for peer assessment

to see whether all important points are covered in the instructions or is there an important point left to be included. Each pair can give suggestions and feedback to the other pair. Finally, all sets of instructions will be compiled together by the teacher and the students to make a single set of instruction and put up in the garden.

Step 9 (Grand Exhibition): On day 19, the teachers from the entire school will be invited to visit the 'Plant-Friend Garden' and read all the journals that the children have maintained. There will be a grand exhibition, and all the teachers will share how they liked the entire project. Each pair will share their journey of taking care of and nurturing the plant in these 20 days with all the teachers and the teachers will give them feedback of their efforts. The children would be intimated about it on day 16 so that they get 3 days to prepare for the presentation. The points to keep in mind for the presentation that the teacher will share with the children are as follows: -

- Complete journal entries in case there is any entry left
- Complete the covers of the journals in case they are not complete
- Discuss and develop a plan for the presentation with your pair
 - o Show the journal to the teachers and tell them how you have maintained it for 20 days
 - o Tell the teachers how you took care of your plant-friend as a team
 - o Tell the teachers how your plant-friend grew in these 20 days.

Step 10 (Project Closure): On day 20, children will make their final entries to their journals and submit the same to the teacher.

*Taking care of the plant-friend will continue even after the end of the project.

4. Processes for ongoing assessment:

Process 1: Self-reflection on the plant journal

Checklist for self-assessment	Yes	No
Did I capture all the details of my plant-friend in my journal		
If 'No' then what else should I write?		
Is there any interesting or different way in which my friends have written about their plant-friend?		
Is there any idea that I can borrow from my friend to write about my plant-friend?		
If 'Yes', then what is it?		

Process 2: Peer assessment on 'Instruction for the Visitors'

	Yes	No
All-important instructions are included in the list.		
If 'No' then what are the instructions to be added to the list?		
1.		
2.		

Process 3: Rubric for process and product (given below)

The teacher will continuously observe children and make observation notes to be able to use the final rubric. If required, she can also at times record certain engagements of a few children anecdotally.

5. Project Output: Plant Journal

The final output is a journal that every child will maintain for 20 days about his/ her plant-friend. S/he will write about the growth and development of the plant as observed in as many details possible. She will also write about her/ his friendship with the plant, which may also grow as the plant grows. S/he should make a journal entry every

day (on days the child is present in the school) in multiple forms; writing, drawing, pasting crafts or other artefacts and labelling them etc.

6. Rubrics: Rubrics should include the combination of process and product outcomes aligned to the LO's and competencies.

Criteria	Level 1	Level 2	Level 3
Collaboration & Contribution	- Did not collaborate well with the friend to take care of the plant every day. Only looked after the plant for 2-3 days throughout the entire project period. - Contributed only during one or two steps during the project period. (e.g. taking care of the plant, making journal entries, giving peer feedback, preparing for presentation etc.)	- Did not collaborate well with the friend to take care of the plant every day. Some days he/she left the entire responsibility of taking care of the plant on the partner. OR - Did not contribute equally during all the all steps of the project. Missed contributing in one or two steps. (e.g. taking care of the plant, making journal entries, giving peer feedback, preparing for presentation etc.)	-Consistently collaborated with the friend to take care of the plant every day (planned and executed every step together). -Contributed equally and substantially to the teamwork at every step of the project (taking care of the plant, making journal entries, giving peer feedback, preparing for presentation etc.)
Empathy	(To be marked Level 1 if any 2 of the following points could be observed.) - Could not show a consistent increase in care, friendship and bonding towards the plant friend. Took very little care of the plant and showed indifference or no emotional attachment with it. - Showed indifference towards other plants while taken out for a nature walk. - Shows no care or emotional connect while talking about her/ his journey with the plant friend during the circle time.	- Demonstrated progress in care, friendship, bonding and empathy towards the plant-friend throughout the project. - Showed indifference towards other plants while taken out for a nature walk. - Talks empathetically about her/ his journey with the plant-friend during circle times. - Expresses emotional connect with the plant friend while presenting the project with all the faculties of the school.	-Demonstrated progress in care, friendship, bonding and empathy towards the plant-friend throughout the project. -Demonstrated increased care and concern towards other plants when taken for a nature walk. -Talks empathetically about her/ his journey with the plant-friend during circle times -Expresses emotional connect with the plant friend while presenting the project with all the faculties of the school.

Self-reflection	-Could identify strengths and weakness of her own journal writing. -Could not identify interesting/ other ways in which her/ his friends have made journal entries. -Could not adopt/ adapt interesting ideas from her/his friends to improve her/his journal writing.	-Could identify strengths and weakness of her own journal writing. -Could identify interesting/ other ways in which her/ his friends have made journal entries. -Could not adopt/ adapt interesting ideas from her/his friends to improve her/his journal writing.	-Could identify strengths and weakness of her own journal writing. -Could identify interesting/ other ways in which her/ his friends have made journal entries. -Could adopt/ adapt interesting ideas from her/his friends to improve her/his journal writing.	
Peer Assessment	-Could not follow the checklist properly to analyse the peer work; became too subjective or judgmental in analysing it. - OR -Could not share valuable/ constructive feedback to the peer group. - OR -Could not share the feedback in a desirable manner; became a little offensive while sharing feedback.	-Analyzed the peer work following the required checklist. -Could not share valuable/ constructive feedback to the peer group. - OR -Could not share the feedback in a desirable manner; became a little offensive while sharing feedback.	-Analyzed the peer work following the required checklist. -Gave valuable/ constructive feedback to the peer group in an appropriate manner.	
Pair Presentation	(To be marked Level 1 only if any 2-3 of the following points are observed.) -Presentation shows lack of planning and preparation beforehand. -Did not take equal responsibility to present. Partner did the maximum presentation. -There was not much clarity of thought and expression. Sometimes it was difficult to understand what the point is he or she is trying to make. -Missed out some important points in the presentation.	(To be marked Level 2 only if any one of the following is observed. Rest 3 points should be as good as level 3) -Presentation shows lack of planning and preparation beforehand. -Did not take equal responsibility to present. Partner did the maximum presentation. -There was not much clarity of thought and expression. Sometimes it was difficult to understand what the point is he or she is trying to make. -Missed out some important points in the presentation.	-Presentation shows good planning and preparation. -Shared the responsibility of presenting equally -Clearly articulated what she/he intends to share. -Covered all the required points in the presentation.	

Plant Journal	(To be marked Level 1 only if any 2-3 of the following points are observed.) -Some entries are missing from the journal. All 20 entries are not there. -The entries are of similar kind- either all drawing, or all writing without much variation. -Does not capture how the feeling and emotion of the child has built around the plant over a period of 20 days. -The growth trajectory of the plant is not well captured through the journal.	(To be marked Level 2 only if any one of the following is observed. Rest 3 points should be as good as level 3) -Some entries are missing from the journal. All 20 entries are not there. -The growth trajectory of the plant is not well captured through the journal.	-There is an entry for every day when the child was present in the school during the 20 days of project. -There are multiple kinds of entries- writing, drawing, craft etc. -Captures well the feeling and emotion of the child. Builds the journey of friendship across the 20 days of project. -Captures well the growth trajectory of the plant.	
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References

1. Frey, B. B. (2013). Modern classroom assessment. Sage publications. Chapter 8: Authentic Assessment
2. Palm, T. (2019). Performance assessment and authentic assessment: A conceptual analysis of the literature. Practical assessment, research, and evaluation, 13(1), 4.
3. NCERT. (2022). National Curriculum Framework. New Delhi: NCERT.

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