

My Portfolio

My personal Journey -

The Accidental Pilgrim

Webster's English Dictionary defines a pilgrim thus, "one who journeys in foreign land". I have also read the word defined as "wanderer or wayfarer". I believe that the day one stops learning is the day one starts to die and with that as a guide I am a seeker, a traveller, a student in search of answers to questions yet undefined.

I've heard teachers, preachers, parents & peer speak of "change" being the only constant in life. While it sounded extremely profound and I understood at a superficial level that there was truth behind the thought, I wasn't quite able to experience or appreciate it at a deeper level. The "ah-ha" moment happened at a Vipassana Meditation camp some years ago when I began to appreciate the meaning of impermanence and the futility of attachment. The lesson learnt was powerful but truly imbibing it was much harder. It was the beginning of a journey – a journey to do better, empathise more & react less.

It is also said & I believe it, that when the student is ready the Guru will manifest – and so it was for me. I signed up for the IAAT program at a time when I felt like I was at a cross-roads & desperately wanting a sense of accomplishment & fulfilment that I was lacking. Any path worth following is bound to be difficult, little did I imagine this path would challenge me this hard!

I felt ready to take the plunge at the start, looking forward to leaving the program armed with the tools I'd need to be a better parent. What came next was a surprise at all levels. The course was more challenging, intense, fun, enlightening, provocative, educational, frustrating & exhilarating than I imagined.

The word Roller-coaster has been used many times by many people to describe the IAAT program and I agree ...it is a roller-coaster. I came to the course with experience spanning advertising, public relations, business development and most recently not-for-profit management and was confident of being able to manage the rigors of a 10-month Diploma course. Boy, was I wrong!!!

After over 10 years of working full-time I wanted to make a switch that would allow for more time with my children and hoped to learn some tricks & gain knowledge to help make me a better parent. I reasoned that understanding children's behaviours, motivators, triggers & catalysts would enable me to be more knowledgeable, thoughtful and conscious parent. Most of us, become parents with every intention of loving, cherishing, nurturing, enabling and educating our children to the very best of our abilities. Common wisdom dictates that natural human instinct will kick in and barring extreme aberrations most of us will be good parents. As a parent, I certainly held on to that belief with every fibre of my being. The unpleasant truth is, despite every good intention and all the financial, emotional & psychological resource at my disposal I've made mistakes, even regarding matters as routine as where my children studied or what manner of support they needed and when or even if.

I grew up in a nuclear family, with a stay-at-home mother, and my father travelled a lot. My sister is 4 years younger than me and there was the constant comparison between the 2 of us and our cousins by the adults. We are a typical conservative South India family, where a very high emphasis was placed on education and doing well in school. Schooling was at traditional establishments such as the Bharatiya Vidya Bhavan and St. Ann's School for Girls which included lessons like moral values & Socially Useful Productive Work (SUPW) and we learnt about "proper" lady-like behaviour & knitting

& hemming. A structured education of course was of paramount importance – and they held unit tests every week, Tamil lessons (largely due to political pressure) and a minimal dose of sports such as kho-kho, tennikoit & volleyball. Outside of school I took Bharatanatyam lessons and went on to perform my Arangetram and subsequently teach Bharatanatyam, Carnatic music and Guitar. Physical activity, sports even jogging and running as minor forms of exercise were never encouraged and also it didn't occur to me to suggest it and all these years later as a fitness enthusiast now, I wonder why.

Now, at the age of 40 I am finally beginning to frame the questions for the answers I had already formulated or begun to believe in in my head. It has been an accidental journey filled with wrong turns and misguided ideas in search of something simultaneously ephemeral and tangible. The intrinsic truth to the quest are all on one way or the other. I now feel like I am figuring out, largely motivated by the IAAT program. It is a rare treat to be in an environment that actively, deliberately, consciously & cautiously pushes you out of your comfort zone, dares you to question and believe that your questions are valid & heard.

I am at the beginning of another journey heading in a whole new direction. The destination is not visible yet, but I can sense it in the distance. An old proverb goes, “A rolling stone gathers no moss”, and a Google search defines it as “a person who does not settle in one place will not accumulate wealth or status, or responsibilities or commitments.” I disagree. In my opinion, a spirit of adventure and a feeling of restlessness are the keys to living a life of wonderment & awe, of never settling for the path of least resistance or constantly seeking to learn & grow or striving to give back of yourself in gratitude for all the blessings I've received in life. Even the tough times; the situations that have challenged me the most have all brought me to the starting line of this quest and I feel confident that I will be able to actually make an impact through the medium of education.

Starting from the information session at the Heritage School Meditation Centre to spending a solo night on the mountains to walking on hot coals to growing to empathise with strangers to facing down pre-conceived notions & beliefs and slowly starting to look within. It's been a thrill getting to know the girls and the faculty, engaging in debate and dialogue and going deeper into the study of what it means to be a life-long student & teacher.

A rather unexpected but very pleasant realisation I've had because of the IAAT programme is that I have a rather strong and willing network of friends and family, ready to rally around and offer help & support whenever needed. It's a very reassuring and comforting feeling.

The time is now- my journey to become a teacher was accidental but it has been a fortuitous one so far and I am eager to see where it might take me.

It has opened doors and created possibilities I would otherwise have never been able to even contemplate.

My educational Philosophy

Philosophy is a loaded word and conjures up images of white-haired men and women nodding wisely as they sit around a living room deep in thought, sharing & debating the merits of each other's' opinions. I know that's a gross generalisation, but the fact is philosophy does have a certain air of being hard to get and consisting of abstract and hard to fathom truths. All of us go through life looking for one path or the other that will help guide the way and, in the process, start to develop our own rules and notes and methods and practises that we want to imbibe.

As for a philosophy on education I am sure I do not have one. I have learnt over the past 10 months that the lens through which I viewed children is severely tinted. My previous experience with children

revolved around mine and obviously was weighed down heavily by my own hopes dreams and aspirations for them coupled with my own sense of importance and how I saw that translating through my children.

Like all mothers I believed myself to be have all the answers. Fact - even now I tell my 7-year-old and he believes it, that “mommy knows & sees everything”. As a mother I’m thrilled my child still thinks I’m God, but as an adult I know I have so much to learn from him.

In a nut-shell, my philosophy of education quite simply states – “Children should not be taught anything, in fact they cannot be taught anything.” I know it sounds like an oxymoron, but through the program and the practise I’ve seen that the less the adult speaks the easier it is to hear the child. I have tested it out at home too - the day I stopped harping on my child practising is the day his teacher commented on his potential. This does not in any way absolve the educator of all responsibility. On the contrary, it makes it imperative that they are present consciously and consistently in the student’s life. A child learning to find her own way is naturally going to be looking for reassurance and affirmation and that is the greatest lesson the teacher can give the student – the confidence to learn anything!

Once a child learns to learn, she will learn to enjoy it and that is the foundation to all education. The minute it becomes a fun activity and not a drudge with no other consequences or results expected other than learning, creating, discovering, exploring something new and different. The Bollywood movie 3 Idiots attempted to capture this rather successfully – that real education leading to real-life begins with joy.

Me as an Observer

Human beings are inherently social creatures and it is not in our nature to simply sit back and observe. I have never been more challenged than when I had to consciously just observe and suspend all judgment & inference-making. As a fledgling meditator I had begun to make feeble attempts at trying to maintain an even mind with regards to my personal relationships with limited success.

I am happy to report that the constant messaging over the last 10 months of needing to be self-aware & mindful, conscious of one’s own flaws & triggers, has helped me a much more mindful observer. I have learnt to sift the observation from the need to label and connect with past knowledge and bias.

For example, when I first began observing my classes, the parent in me was constantly questioning what was happening in the class-room against what I imagined my child may be subjected to in her own class. I also wondered about what I had just begun to learn and believe as being the right way to teach versus the reality of what was happening upstairs. I know now that I was being unfairly rash in my judgements and coming to conclusions based on snippets and glimpses into a rather narrow picture of the reality.

I now know that the ability and patience required to be able to learn from observation is a skill to be mastered. Over the months I have learnt things about myself that I had taken for granted. The observations are a very useful tool to help put things in perspective. When one observes without the need to react then we can see things in a much better light and therefore able to make better decisions too.

I hope I can continue this practise even outside the purview of the school environment and make it part of my life-long learning. It will enable to be honest with myself and my work and also aid in my learning.

My approach to subjects

Unlike most of my cohort I am not Mathematically inclined. An oft repeated story of mine is of about how after my 10th Board results were declared, and I realised that I had scored about 82% I went into the garden and shredded all my Math textbooks, guide books & question papers and built a bonfire of it all, relieved to be seeing the back of the subject. The harsh irony was that not 2 months later I was back to doing Math as the school I entered offered only Math as an elective.

A passionate teacher who brings her enthusiasm and interest for the subject into the class-room will effortlessly be able to transfer that to the student. Her lack of content knowledge may be forgiven, as long as she is able to get student excited enough to want to look for the answers themselves.

All subjects need to be treated as equal by the school, teachers and parents without any bias shown towards one over the other - of the like of one being pitted as being hard and the other easy or better suited for girls over boys or even one translating into a paying career, while the other is essentially a hobby. Children need to see that all disciplines are equally fascinating and full of potential, free of any restrictions and open to them to explore and experiment with as they see fit.

Children should also be exposed to new and otherwise unfamiliar subjects like say, art appreciation or engineering drawing or choreography. Doing this will ensure that a child is picking his true passion and ensuring his success in later life as opposed to accidentally entering a career either due to lack of information or external pressure. Knowledge is power, but incomplete knowledge is a dangerous thing and more likely to cause more harm than good.

My approach to all subjects now is to treat them with the reverence and importance they deserve and not clouding children's opinions with bias or pre-conception.

Appended herein are the lesson plans from my first OBCO cycle along with observations and notes from the pre-& post-observation conferences. Also included are lesson plans and assessments and readings created for the LTW. Unfortunately, due to time constraints I couldn't find the time to engage with the CT & TE together for their feedback, although they were completely and fully in the loop always.

Resident's Assignment

Resident's name: Vidya Chari

Observation Cycle: 1

Practice Task Name: OBCO

Date of giving Assignment: Aug 1 '17

Faculty: Tapaswini Sahu

Date of submission of Assignment: Aug 29 '17

Task: Insert the Lesson Plan you have implemented. At the end please make note of the Pre Lesson Conversation you had with your CT/TE.

Grade: 6

Subject: Module

Earth (Earthquake)

Long term Learning Targets:

- I can explain how the movement of plates leads to changes on the surface of the earth.
- I can give reasons for the occurrence of volcanoes and earthquakes.

Supporting learning targets:

- I can give reasons for the occurrence of earthquakes.

Day 1

Learning target: I can give reasons for the occurrence of earthquakes.			
Resources: case study on Nepal, reading on earthquake, twig video on earthquakes			
	Start Time	End Time	Duration

Opening	1:10 PM	1:20 PM	10 mins
<p><i>I expect the children to enter a little late and tired from PE.</i></p> <p><i>As the class will be returning from PE, allow 10 minutes for settling down. Drink water, use the loo, go to the Med Room.</i></p> <p><i>Continue to remind them to settle down, put everything away except their module notebooks & pencil cases.</i></p> <p>Release Character targets: -</p> <ul style="list-style-type: none"> I can be focused on the task at hand. I can be a contributing member of my crew by actively participating during crew discussions. <p><i>Acknowledge that it is the last period of the day and they must be tired after PE, but we are going to be exploring a whole new very interesting, fascinating, scary and yet for the most part unfathomable (unpredictability of Earthquakes) phenomenon.</i></p> <p>Write down “Focus” & “Active Participation” on the board.</p> <p>Learning Experience</p> <p>The children will be asked questions on the effects of plate movement?</p> <p>Three questions to recap -</p> <ol style="list-style-type: none"> 1. What are tectonic plates? 2. Are they static? 3. Name 3 effects of tectonic plate movement? <p><i>Now we will watch a video on one of these 3.</i></p> <p><i>This is simply an introductory video – just focus. There will be another video.</i></p> <p>Play video</p> <p><u>Stop at 2 minutes!</u> Keep an eye on the time!!!</p> <p><i>Pen down 3 things that you saw. You can use bullet points or sentences.</i></p> <p>Popcorn sharing.</p> <p><i>We will now watch another video of what causes Earthquakes.</i></p>	<p>1:20</p> <p>1:30</p> <p>1:35</p> <p>1:35</p>	<p>1:30</p> <p>1:35</p> <p>1:45</p>	<p>10 mins</p> <p>10 mins</p>

[illegible]

I adapted the original plan shared with me by the teacher to suit the period I was going to be teaching.

The plan shared with me was for a 3-lesson unit on Earthquakes and the intention was that I would take on the entire unit. My OBCO was only of Day 1 – the introductory lesson. I did however go on to take Day 2's lesson also.

The original lesson plan for days 1 & 2 are included below as a reference.

As I was not using the original plan, I had included some additional notes on the specific things I would need to focus on during the lesson and say or address as part of the instructions. Those notes are also included here – either in italics or in a different colour.

earthquake-1105/

Students will watch the video slowly and they will write the words that they would find interesting or new in their word wall.

After the video the students share their observations in their crew.

Step1: Crew sharing

Step2: One member from each crew to share the response

Teacher gives the reading: What are earthquakes?

Students read it individually and make glossary of given terms in their notebooks.

After reading individually, students are asked to check their sheet with different pen and teacher discusses the answers

Homework:

The students are asked to complete the glossary in their notebooks from the reading text and write the meanings of the glossary terms.

DAY 2

Long term Learning Targets:

- I can explain how the movement of plates leads to changes on the surface of the earth.
- I can give reasons for the occurrence of volcanoes and earthquakes.

Supporting learning targets:

- I can give reasons for the occurrence of earthquakes.

Learning target: I can observe carefully and note down my observations

Resource : Differentiated sheets –total 5

Opening

Teacher releases the **Character targets**

- I can be focused on the task at hand.
- I can be a contributing member of my crew by actively participating during crew discussions.

Learning Experience:

Teacher will start with differentiation plans

Teacher divides class in 5 crews to cater differential learning and gives different readings to each crew.

Teacher shares following instructions with the class for presenting the given topic.

- **Each crew will get 5 minutes for presentation.**
- **No PPTs**
- **Presenter crew will take short quiz at the end of presentation.**
- **Division of roles and responsibilities.**
- **Any member of the crew will be asked to answer the question related to the topic given to them.**

Crew 1 : Earthquake Resistant Construction

- **What types of materials and structures help in minimizing the impact of earthquakes?**

Crew2 : Seismic Zones

- What do you understand by the word ‘Quake zones’?
- What can you say about the various quake zones shown here on the map?
- Do you think there is any relation between tectonic plates and earthquakes?

Crew 3: How to measure Earthquake

What is richter scale and how it helps in measuring earthquake?

Crew 4: Effects of Earthquakes

State the effects of earthquakes on the society.

Crew 5: Do's and Don'ts During Earthquake

How to stay safe during an earthquake (indoors as well as outdoor)

Teacher will give 20 mins to each crew to prepare for presentation

Teacher will show the consolidation table and children are asked to copy it in the notebook.

OBCO Cycle 1 - August

Pre- Lesson Observation Notes

Discussion:

The Pre-observation discussion happened in 3 parts – first with Indu, secondly with Kamakshi & finally with both together all on the day of the lesson.

The lesson flow included a power point presentation along with the videos. I had the power point presentation previously and had made notes based off that However, I did not receive the lesson plan itself and access to the TWIG video until the evening before. I had made notes based off them and due to a scheduling conflict, it was decided that I would meet with Indu during the first period (745 AM to 835 AM) and discuss the plan with Kamakshi during the 4th or 5th period when she would be free.

Feedback/ insights/ any changes you would make to the lesson based on the discussion:

Based off the first meeting it was decided that I would not use the Power Point at all during the class, focussing instead on directly addressing the children and using the videos included in the plan.

Also, as the class prior to Module would be PE and this would be the last period of the day going from 110 PM to 210 PM I felt and indicated to Indu that I expected to not have more than 30 minutes to teach. Typically, children returned from PE (via the washroom & Med room) at least 10 minutes late and the last period is expected to wrap up no later than 2 PM allowing for time to pack & leave.

Keeping this in mind, some of the changes decided on were –

1. No use of Power Point
2. Writing the Learning Target on the board
3. Shortening the length of the video to accommodate for time

4. Putting up the Character target but not necessarily unpacking it.

Following this discussion, I made changes to the plan which was then shared with Kamakshi. While meeting with Kamakshi I learnt that in Module (specifically) one never revealed the Learning Target up front & that it was left to the children to come up with by themselves. Also, in my revised version of the plan I had mentioned in error that the “viewers focus” would be shared before the first video itself. Following this discussion further changes were made and it was also decided that without a 3-way conference between Indu, Kamakshi & I was critical to ensuring a complete & thorough OBCO.

One of the biggest changes made was that I would not administer the home-work during this period but instead end the lesson following the note-taking from the 2nd video and capturing of the word wall. I had, in my plan put down all the words I expected the children to come with based off the video while focusing on the viewer’s purpose.

Following the meeting with Indu & Kamakshi together the plan was further revised and the last version is the one that was used. Some of the changes incorporated were –

1. There would be no Reading home-work given out at the end.
2. The lesson would end after the note-taking was done & discussed in the class with a view to come up with a Word wall. The difficult/unfamiliar words would be put up on the Board which the students would have to copy down in their notebooks.
3. There would be no specific discussion around the words themselves, instead children will be asked to go home and come up with the meanings only based on the context of the video.

We also discussed problem or concern areas to look out for and address in the class –

1. When & where to pause during the video watching to allow for proper note-taking without distracting the class or eating into the time.
2. Based on my past teaching observation, I decided that I needed to focus on instruction giving & maintain the class’ attention throughout the period.

What do I feel went well in today's session/s?

I believe the class went quite well – children were engaged for the most part & paid attention to the instructions given. There weren't too much distractions and children enjoyed watching both videos & working on the task assigned afterwards.

The hardest thing for me was:

The hardest thing I had to was to focus on giving clear & precise instructions and can keep the children's attention & focus for the duration of the lesson. The other thing I knew would be a challenge and wanted to be very careful about was time management.

What could I possibly change/modify/focus in the next session:

The 4 main points that came up for improvement in the post-observation discussion were –

1. Since I was spending all my time near the computer (managing the videos) it was not possible to walk around the classroom and check on each crew. It was suggested by Kamakshi that in such a situation I designate one child from each crew to keep an eye on discipline & decorum.
2. The video pause-start itself was identified earlier as a potential challenge with children's natural tendencies being to copy down everything verbatim as opposed to make notes. That part could have been handled better.
3. On 2 occasions children asked me the meaning of 2 words and I addressed them individually as opposed to throwing it back to the class and asking them for an answer as I assumed these were specific queries and the class at large had got it. In the future, it was suggested that I not make such an assumption but instead have a discussion instead.
4. The fourth point to work on is practicing writing on the Board so the hand-writing is legible & clear.

What aspects of your teaching approach will you look at changing in the future? How will you go about doing this?

I will continue to work on engaging the students & maintaining decorum & handing out specific instructions. I hope to improve by teaching (either independently or co-teaching) as often as possible.

What have you found useful/not so useful about the observation process? What issues or concerns do you have about the planning, observation or reflection process?

It is useful to meet with the TE & CT both before & after class to gain their perspectives, feedback & guidance.

The biggest challenge is time management –

- Receiving the plans with enough time to spare thus allowing for a thorough understanding of the lesson & the deliverables & expectations.
- Finding the time with both CT & TE to get their input also well in advance and then having the time to incorporate that into the plan.
- Having the freedom & flexibility to change/modify or otherwise adapt the plan to make it more personal & natural as opposed to trying to execute another's vision correctly.

The other points that have crossed my mind while reflecting today...

Sometimes a lesson plan is just a lesson plan – a guide, a map, a pathway to an eventual distant target and it may not be so critical to detail it to such a great thus freeing up time for other activities, specifically from the teacher's perspectives.

Resident's Assignment

Resident's name: Vidya Chari

Observation Cycle: 2

Practice Task Name: OBCO

Date of giving Assignment:

Faculty: Tapaswini Sahu

Date of submission of Assignment:

Task: Insert the Lesson Plan you have implemented. At the end please make note of the Pre Lesson Conversation you had with your CT/TE.

Grade: 6

Subject: English

Creative Writing

Objective

Students will be able to imagine a fantasy scenario in a real-life context and articulate it using descriptive words.

Day 1

Topic: Creative writing using a writing prompt.			
Resources:			
Writing Prompt - <i>If you could, at this moment, transport yourself to anywhere in the world, where would it be and why?</i>			
Writing sheets numbered with the roll number of each child to facilitate the anonymous pair share			
	Start Time	End Time	Duration
Opening – Let the class settle-down and calm down with some music. Get them to put everything away, except their pencil cases. Step 1:			

<p>Write the writing prompt o the Board –</p> <p>Give instructions –</p> <ol style="list-style-type: none"> 1. Describe the place that you would go to – it could be real or fictional or fantasy, taken from a book/song, etc. wherever their imagination takes you.... in the present time, past or future. Provide details to create a rich picture of the place. 2. Give reasons for why you want to be in that particular place at this moment. 3. Limit yourself to the sheet provided. You must fill in one side, you may use the other. No additional sheets will be provided. 4. DO NOT write your names on the sheets. 5. You will ONLY be given 15 minutes. 			<p>10 mins</p>
<p>Step 2: Hand out the numbered sheets (by roll number) to the children.</p>			<p>5 mins</p>
<p>Step 3: Children will then be asked to individually write a piece based on the writing prompt. Teacher will clear any individual doubts.</p>			<p>15 mins</p>
<p>Step 4: Collect the sheets back and re-distribute them in a pre-decided random pattern so that the peer-review remains anonymous.</p>			
<p>Step 5: Go over the review process by sharing power point slide of a passage. Focus on flow, language & grammar.</p>			<p>5 mins</p>
<p>Teacher will explain to the children that they need to review the piece based on the theme of ‘I notice, I wonder’. They can talk about specific details in the piece (reasons for selecting a place, choice of words to describe the place, etc.) which they liked, and then suggest improvements (if any).</p>			<p>5 mins</p>
<p>Step 4: Children will individually review the writing given to them.</p>			<p>5 mins</p>
<p>Step 5: Teacher will randomly choose from the class, one from each crew. She will first ask the reviewer about their comments on the piece.</p>			<p>15 mins</p>
<p>She will then ask the author to identify themselves and comment on the piece – the rationale etc.</p>			
<p>The class will be invited to share their comments/suggestions/critique/appreciation/questions on the piece. Teacher will give her inputs at this stage.</p>			

LESSON PLAN

Grade: 6E

Topic: Spelling checklist

Objective: Children will be able to-

- Spell grade appropriate words correctly.
- Identify unfamiliar/difficult words and understand their meaning in the context of the passage.
- Write the contextual meaning and frame sentences for any 5 words from the given list.

Resources: Spelling checklist passage sheet, Sentence formation sheet

Procedure: Teacher will distribute the spelling checklist passage sheets to all the students.

Step 1: Children will read the passage individually.

15 mins

Step 2: Teacher will discuss the main idea of the passage in the class. She will take random responses from students.

Step 3: Students will get into pairs and discuss the meaning of the words in bold/underlined, as well as any additional unfamiliar/difficult words they've come across. Post the sharing, teacher can take responses from the class on any doubts on the difficult words. They can use their dictionary for this purpose at this point.

Step 4: Teacher will distribute the sentence formation sheets to everyone and assign homework with instructions.

Step 5: Teacher will enunciate each word and ask the students to spell it out in their notebooks.

Step 6: Teacher will take random responses from the class on the sentence structuring homework.

- **Do meaning & sentence structure simultaneously** -

LESSON PLAN

Grade: 6E

Topic: Poetry interpretation

Objective: Children will be able to:

- analyze how an author's word choice affects tone and meaning.
- determine the meaning of literal and figurative language (imagery, metaphors and similes) in text.

Resources: Wind-Wolves poem by William D Sargent, poem sheets, PowerPoint presentations on glossary and questions list, and the poem.

Procedure: Teacher will distribute the Wind-Wolves poem sheet to all the students.

Teacher will read aloud the poem. Children will then do a silent reading of the poem. Post this, one child will read the poem out aloud for the benefit of the whole class.

During the silent reading, read and annotate (for difficult/unfamiliar words, and for details). Identify the rhyme scheme (aa-bb, ab-ab).

Understanding the poem

Q. What's happening in the poem?

Expected responses- 1) wolves are chasing the deer, 2) wind is chasing the clouds.

If 1), then do you think that the poet is talking about real wolves? Can you give some evidence from the poem for this?

If 2) What makes you think they are not real wolves? Then what is it? why do you think it's the wind? What words are used in the poem that make you think it's the wind? (**wind wolves, hunting howl**)

Q. Just like the wind wolves are not real wolves, what do you think the poet means by flying deer?

Q. What makes you think that wind is chasing the clouds? (**hunting across the sky, hot on the flanks of the flying deer, frightened bands of cloud deer flee**)

Q. Where is the action happening? (**across the forest, mere, and plain, ghostly trail, from Pegasus square to Milky Way**) Just like wolves chase or hunt deer on the land, wind is blowing away the clouds in the sky.

Q. When the poet wrote this poem, what do you think was the night like, or what was the weather like? What words are used in the poem that suggest that? Can you identify the sounds that the wind is making? (**do you hear the cry as the pack goes by, hunting howl, phantom wail, hear them tongue it keen and clear**)

Poetic Devices

Q. We've seen that wind has been compared to wolves and clouds to deer. What kind of a comparison is happening here? If it was a soft wind blowing, would we still have this comparison? (wind is also fierce and wolves are also fierce)

Show them PPT slide on metaphors. Students will individually write down metaphors/similes from the poem. Compare with your crew with reasons. One member from each crew will share the metaphors. Teacher can write down the metaphors on the board. (**wind-wolves, flying deer, ghostly trail, phantom wail, cloud deer**)

There are no similes in the poem. If children identify a metaphor as a simile, teacher can explain that simile is a direct comparison (using the word 'like') and metaphor is an indirect comparison.

1) Can you think of suitable metaphors for the following?

- The sky
- A tree
- A bird

Students will write down the metaphors in their notebooks. Then share with the class.

Q. Show them PPT slide on alliteration. Teacher will explain that similar sounding words are alliteration.

In pairs, identify examples of alliteration in the poem. Underline all the words that are alliterations. (**flanks of the flying deer, hunting howl, wind wolf, keen and clear**)

For teacher's reference: Metaphors and similes both call attention to how two different things are similar. While both similes and metaphors are used to make comparisons, the difference between similes and metaphors comes down to a word. Similes use the words like or as to compare things — "Life is like a box of chocolates." In contrast, metaphors indirectly state a comparison — "Love is a battlefield." Alliteration is the occurrence of the same letter or sound at the beginning of adjacent or closely connected words.

1. My room is a Bermuda Triangle, stuff goes in and is never seen again. (metaphor)
2. A comfortable sofa is fertile soil for the couch potato. (metaphor)
3. Peter Piper picked a peck of pickled pepper. (Alliteration)
4. She sells sea shells on the sea shore. (Alliteration)
5. As playful as a kitten (simile)
6. Cool as a cucumber (simile)

Closure

What is your overall understanding of the word choice used by the poet? Were you able to visualize the scene? Teacher can explain that the choice of words, especially figurative language, can make a poem more interesting to read.

Homework questions (to be done in the notebook):

- 2) What is the wind compared to in the poem? Cite evidence from the poem.
- 3) What is the wind chasing in the sky? To what does the poet compare that?
- 4) Which words in the poem indicate that the wind is fierce? Which words show that the clouds are scared?
- 5) Find the words in the poem that describe the sound of the wind.

Grade: 6

Subject: Module

Separation of Substances

Long-term Learning Targets:

- I can suggest *appropriate methods of separation of 2 or more solids*, given the nature of the solid component and the mixture
- I can suggest *appropriate method of separation of a solid and a liquid*, given the nature of the components and the mixture
- I can *differentiate between mixture and solution*
- I can investigate which *materials create a solution*
- I can investigate and list down the *factors affecting solubility of a material*
- I can suggest *methods by which a soluble substance can be separated from its solvent*
- I can *name, compare and contrast* various methods of separation & mixing of substances

Culture Targets:

- I can be a *contributing member* of my crew by *actively participating* in crew discussions.
- I can *listen attentively* to the instructions and *finish my task on time*.
- I can *observe* in detail and *record* minutely.
- I can *observe carefully* and draw a *labelled diagram* of the given apparatus

Resources:

Rajma, Rice, Flour, Sugar, Iron filings, Sawdust, Roasted Channas (Peanuts) 50 gm packets*8, Paper clips, erasers, pencil shavings, stapler pins, Distillation apparatus, Beakers (18), Common Salt, Water (warm & cold), Oil, Sand, filter paper & funnel (12), Sieves (6), Magnets (6), marbles

Day 1	
Learning Target: I can suggest <i>appropriate methods of separation of 2 or more solids</i> , given the nature of the solid component and the mixture.	
Resources: 6 Bowls, Rajma, Roasted Channa, Flour, Sawdust, Iron filings, Oil, Sand, Sugar, Printed work-sheets for the entire class, PowerPoint Presentation, Paper clips, erasers, pencil shavings, stapler pins, marbles	
Opening	5 mins
Teacher releases the Culture targets using <u>PPT Slide 2</u> <ul style="list-style-type: none">I can be a <u>contributing member</u> o vgt fc f my crew by <u>actively participating</u> in crew discussions.I can <u>listen attentively</u> to the instructions and <u>finish my task on time.</u>I can <u>observe</u> in detail and <u>record</u> minutely.I can <u>observe carefully</u> and draw a <u>labelled diagram</u> of the given apparatus	10 mins
1. Introduction – Ascertaining prior knowledge – <u>PPT Slide 3</u>	
Teacher will hand out the work-sheets and ask children to work individually to match the 2	

columns. Children are advised to fill in the 3 rd column as per their understanding.	
Teacher discusses their answers (pop-corn). There is no focus on academic vocabulary – only student's understanding.	10 mins
The leading question is –	
Why do we need to separate substances?	
Teacher shows the <u>PPT Slide 4</u> with correctly matched answers for reference.	15 mins
Consolidates the fact that when various substances are mixed together and need to be separated, then the method used will be determined by the nature of substances mixed & the purpose for which the separation is being done.	
Students will write down the answers to the leading question. All the three purposes are:	
To remove impurities and harmful components To separate two different but useful components To remove non-useful components	
Students will paste the sheet in their notebooks.	
2. Class-room Experiment – Separation of solids - <u>PPT Slide 5</u>	5 mins
Teacher hands out 6 bowls to the class, each filled with a different mixture.	
<ul style="list-style-type: none"> ❖ Bowl with Rajma & Rice ❖ Bowl of Iron filings & sawdust ❖ Bowl of Flour & Sugar ❖ Bowl Roasted Peanuts/Channas with cover ❖ Paper clips & erasers & stapler pins ❖ Pencil shavings & marbles 	
Instructions – Separate the various components/substances in each bowl. Ask for tools if you need them. For the bowl with roasted peanuts, they will need to separate the peanut from its cover.	
Have 6 magnets & 6 sieves handy.	
3. Class-room discussion - <u>PPT Slide 6</u>	10 mins
4. Building Academic Vocabulary – <u>PPT Slide 7</u>	
Children will note down the names of the methods of separation along with their understanding in their note-books.	5 min
Show video on threshing & winnowing – <u>PPT Slide 8</u>	
<u>https://youtu.be/KjLCqahK2XY</u>	
3. Introduce homogenous & heterogenous – <u>PPT Slide 9</u>	10 mins
Elicit examples from the children	

4. Home-work – PPT Slide 10

Day 2

Learning Targets:

- I can suggest *appropriate method of separation of a solid and a liquid*, given the nature of the components and the mixture
- I can *differentiate between mixture and solution*

Resources: Oil, Water, Sand, Beakers (6), Funnels (6), Filter paper (6), Separating funnel (1), Power point presentation, Plastic cups & spoons.

Opening

Class settles down, to soft music, eyes closed.

1. Mixture versus Solution – PPT Slide 10

Classroom discussion followed by writing down the basic definition in their notebooks.

Teacher' Resource

<https://www.thoughtco.com/heterogeneous-and-homogeneous-mixtures-606106>

2. Re-cap last lesson – To elicit learning targets from children.

Brief discussion followed by PPT Slide 11

Children will note-down the conceptual learning target in their notebooks

3. Teacher releases **culture targets** for the day. – PPT Slide 12

Children read the targets & acknowledge understanding & agreement. No unpacking or consolidation required.

4. Class-room experiment – PPT Slide 13

Teacher hands to each crew –

1 Funnels, 1 Filter paper funnel. 1 Beaker, 1 plastic tumbler, plastic spoon (have extra filter paper & cups handy)

Beaker 1 – Sand & water

Empty glasses - 2

Instructions are given to the children to separate the substance from water. Ask them to record all the methods they used.

5. Class discussion on student understanding

Introduce Sedimentation, Decantation & filtration – PPT Slide 14

Children note down the he words along with their understanding of the terms.

The **2 lead questions** on filtration are – PPT Slide 15

- What might have happened had we used an ordinary paper in the funnel?
- Where else do you notice the use of a filter paper in everyday life?

<p>6. Teacher Demonstration – Separation of Oil & Water - <u>PPT Slide 16</u></p> <p>Teacher demonstrates separation using a separation filter.</p> <p>Children are asked to draw a neat labelled diagram.</p> <p>5. Elicit learning Targets from children. – <u>PPT Slide 17</u></p> <p>Children will note-down the learning target in their notebooks</p> <p>6. Home-work – <u>PPT Slide 18</u></p>	<p>10 mins</p> <p>15 mins</p>
<p>Day 3</p>	
<p>Learning Targets:</p> <ul style="list-style-type: none"> • I can suggest appropriate method of separation of a solid and a liquid, given the nature of the components and the mixture • I can investigate which materials create a solution • I can investigate and list down the factors affecting solubility of a material • I can suggest methods by which a soluble substance can be separated from its solvent 	
<p>Resources:</p> <ul style="list-style-type: none"> • Beakers (8), Water (hot & cold), Stirrers (8), Salt, Power point presentation 	
<p>Opening</p>	<p>5 min</p>
<p>Class settles down, to soft music, eyes closed.</p>	
<p>2. Classroom Experiment – <u>PPT Slide 19</u></p>	<p>15 min</p>
<p>Teacher hands to each crew –</p>	
<p><i>Measured amount of salt & water, 1 Stirrer. 1 Beakers</i></p>	
<p>Instructions are given to the children to mix the salt in the water to create a solution.</p>	
<p>Specific :Instructions -</p>	
<p>Assign within the crew a time keeper (to record how long it takes for each spoon of salt to dissolve), scribe (to record the observations), resource manager (handle all the resources & responsible for collecting & returning it to the teacher), doers (to conduct the experiment)</p>	
<p>Recording Observations – <u>PPT Slide 20</u></p>	<p>10 min</p>
<p>4. Teacher Demonstration - <u>PPT Slide 21</u></p>	<p>10 min</p>
<p>Children are instructed to record their observations in their notebooks</p>	
<p>5. Introducing Academic vocabulary - <u>PPT Slide 22 - 26</u></p>	<p>30 min</p>
<p>Children are asked to quietly read the slide for 5 minutes. No notes to be made.</p>	
<p>Teacher then discusses with the class the terms using the teacher’s resource. She makes notes on the Board as required.</p>	

Children are asked to take down notes in bullet points as the class progresses.

Teacher's Resource

Solute - *A solute is a substance which is dissolved in a solvent to make a solution.*

Example - Sugar. Sugar added to water, which is the solvent in this case, dissolves into sugar water.

The solute can be a solid or a liquid or a gas. Only the solute goes through a change in state when a solution is created. If both reagents remain in the same state, the one of which there is the least remaining is the solute.

Example - Iced tea. It is easier to dissolve a small amount of tea (the solute) in a large amount of water (the solvent) than the other way around.

Solvent - *When discussing solutions, the solute is the substance which dissolves, while the solvent is the substance into which the solute dissolves.*

Solution - *The two parts of a solution are the solvent and the solute. When the two parts combine to make a solution, the properties of the solution differ from the properties of the two individual parts.*

A solution is any mixture that is the same (homogeneous) at a molecular level, which means that any given quantity (volume) of the solution has about the same proportion of type of molecule as the overall solution.

*Solutions can be solids **dissolved** in liquids. Solutions can also be gases dissolved in liquids, such as carbonated water. There can also be gases in other gases and liquids in liquids. If you mix things up and they stay at an even distribution, it is a solution. Alloys with all types of metals are good examples of solid solutions at room temperature.*

The most familiar types of solutions are liquid. In liquids, a solution is generally produced by a chemical process.

Example - Tap water is a solution in which the solvent is water and the solutes are salts, magnesium and chlorine, which have all dissolved in the water through natural or man-made processes.

Solvents and solutes can be solid as well.

Example - 14-karat gold is a solid solution in which the solvent is pure gold and the solutes are nickel, palladium or copper.

Gases also form solutions, and these often occur without a chemical reaction between their constituents.

Example - Air, is a solution with nitrogen as the solvent and oxygen, carbon dioxide and other gases as the solutes. It is not a chemical interaction but the nature of gases in general that cause them to

form a solution in this way.

Example – One solution that is somewhat more complicated is the dissolution of hydrogen chloride gas within a liquid to create hydrochloric acid. Dissolving a gas in a solid, as with hydrogen in platinum, is a possible solution.

While one might view a liquid as the solvent when it enters a solution with a solid, that is not always the case. It is possible to dissolve liquid mercury in solid sodium to create an alloy.

Wine that is 12 percent alcohol by volume indicates the ratio of the solution of the alcohol within the solvent water.

Types of Solutions – Saturated & Unsaturated –

Unsaturated solutions are solutions that contain less solute than the actual amount of solute that the solvent can dissolve. If more solutes can be dissolved in the solution, the solution is still considered unsaturated.

Every solute and solvent combination has its limit, and once this limit is reached, the substance is in a state that is called the saturation point.

Example of an unsaturated solution is a teaspoon of sugar in a glass of water. If one adds a teaspoon of sugar to a glass of water, it dissolves, and one can still add more sugar to it because it is still unsaturated. However, at some point, the sugar no longer dissolves in the water because the substance is saturated. In other words, the solution has reached its saturation limit.

A small amount of salt in a large bucket of water dissolves, and the water is considered an unsaturated solution. Iced tea and coffee can also be considered examples of unsaturated solutions.

Factors affecting Solubility - *There are different solubility rules to consider in determining how much of a solute can be dissolved in each amount of solvent.*

Température & Volume

Miscible versus immiscible liquids

A distinct layer between two liquids will not form when you have a solution that is labelled miscible. When a distinct layer does form in a mixed solution this is called immiscibility.

Example - a type of immiscible liquid is oil and water.

15 min

6. Classroom Activity – Formative Assessment – PPT Slide 27 & 28

Children are asked to do the activity in their notebooks or if time is running out assign it as home-work.

Day 4

Learning Targets:

Resources: Hand-out, PowerPoint presentation

Opening

Class settles down, to soft music, eyes closed.

5 min

1. Re-cap last lesson – To elicit learning Targets from children.

15 min

Brief discussion followed by **PPT Slide 29**

Children will note-down the learning target in their notebooks

2. Briefly discuss Evaporation & Condensation – PPT Slide 30

10 min

3. Distillation – PPT Slide 31

15 min

Explain distillation. Explain the apparatus & process.

Hand-outs are given to the children and they are asked to close-read and annotate for definitions. They should stick the sheets in their books.

Teacher's Resource

Distillation is the process of separating the components or substances from a liquid mixture by selective evaporation and condensation. Distillation may result in essentially complete separation (nearly pure components), or it may be a partial separation that increases the concentration of selected components of the mixture.

The process uses the differences in the volatility of the mixture's components. To separate a mixture of liquids, the liquid can be heated to force components, which have different boiling points, into the gas phase. The gas is then condensed back into liquid form and collected.

Repeating the process on the collected liquid to improve the purity of the product is called double distillation. Although the term is most commonly applied to liquids, the reverse process can be used to separate gases by liquefying components using changes in temperature and/or pressure.

A plant that performs distillation is called a distillery. The apparatus used to perform distillation is called a still.

Uses of Distillation

Commercial processes - Production of gasoline, distilled water, xylene, alcohol, paraffin, kerosene, and many other liquids. Gas may be liquefied and separate. For example: nitrogen, oxygen, and argon are distilled from air.

Types of Distillation

Simple distillation – Simple distillation may be used when the boiling points of two liquids are significantly different from each other or to separate liquids from solids or non-volatile components. In simple distillation, a mixture is heated to change the most volatile component from a liquid into vapor.

Example -

The vapor rises and passes into a condenser. Usually, the condenser is cooled (e.g., by running cold water around it) to promote condensation of the vapor, which is collected.

Fractional distillation (different volatile 'fractions' are collected as they are produced), and destructive distillation (usually, a material is heated so that it decomposes into compounds for collection).

Steam distillation is used to separate heat-sensitive components. Steam is added to the mixture, causing some of it to vaporize. This vapor is cooled and condensed into two liquid fractions. Sometimes the fractions are collected separately, or they may have different density values, so they

separate on their own. An example is steam distillation of flowers to yield essential oil and a water-based distillate.

Vacuum distillation is used to separate components that have high boiling points. Lowering the pressure of the apparatus also lowers boiling points. Otherwise, the process is similar to other forms of distillation. Vacuum distillation is particularly useful when the normal boiling point exceeds the decomposition temperature of a compound.

4. Classroom discussion after quiet Reading – PPT Slide 32

Introduce briefly types of distillation & uses

5. Homework - PPT Slide 33

20 min