

Lesson 1- Story- Going to NASA

Description: Flourishing

Story

Advik is in class 11th and loves Physics. He dreams of becoming an Engineer. So far the topics Laws of Motion and Relational motion have been covered in school and he finds them easy. He enjoys working with real life problems around gravity and acceleration. He feels like he “knows” Physics and these concepts come naturally to him.

He has also started preparing for Engineering entrances and has been going for IIT coaching since the session began. While walking back from one of these coaching sessions he wishfully thinks about how it would be to work at NASA, more so if he could become an astronaut. It would be so exciting to go into space. What if his dog Simba could come along too? He laughs imagining how he would look funny in the spacesuit.

Sometimes he wonders about how microgravity really works and how we end up floating in space. Physics is his favorite subject.

Story Q1

Q1 What is/was your favorite subject in school? What do/did you enjoy most about it?

Story Q2

Q2 If it was possible to walk in space with a camera that allowed you to take a picture of the universe, which planet or star would you like to click? What would you fear or love most about the space walk?

Story Q3

Q3 What do you think makes Advik happy in the story so far?

Lesson 2- Story- Mr Calculus

Description: Thoughts and Feelings

Story

As days pass, Advik's preparation is gaining pace. He is diligent about spending a few hours daily on each PCM subject, solving problems.

He mostly feels like he is on top of everything but sometimes finds Math tough. Today in tuition class a new topic of Integral Calculus was introduced. Advik has never done this before and is curious about it. As the class goes on, he tries to make sense of what Mr Talwar is explaining. But most of it goes above his head. His friend Aadya, who is not feeling as interested in the class is busy scribbling a picture of Mr Calculus on her notebook as an imitation of Mr Talwar. Advik and Aadya break into a giggle but Advik quickly regains his composure.

A few hours later in the evening, he takes out his Math book and sits down to understand the concepts again. After juggling for about a half an hour he feels that he is still struggling with it. "Yes basically it is a summation, but what are these expressions coming from? Where do we use this in real life?" He feels bothered and frustrated.

Story Q1

Q1 Who do you identify with more in the story, Advik or Aadya? Do you remember a funny incident from school that broke the whole class into giggles and laughter?

Story Q2

Q2 If you had to draw Mr Calculus what would it look like to you?

- a. An old and brilliant professor with a long beard
- b. An inverted triangle with two eyes
- c. A curve ball
- d. Multiple crosses

Story Q3

Q3 Identify Advik's various thoughts and feelings in this story.

Lesson 3- Story- Definite AND Indefinite

Description: A distorted view

Story

Next day in school the Math teacher Ms Sheila announces that she will start teaching Calculus early since there is a lot of course content to cover. Advik is both relieved and anxious. He has hope that maybe in school he will be able to understand better what his teacher teaches because the tuition classes have been a bit challenging. At the same time he feels a bit worried about whether he'll be able to crack this topic.

A few days pass. Advik pays attention in class especially when Calculus is being taught. He gets the basic idea but feels stuck on concepts like Definite and Indefinite Integral. Limits puzzle him. Even though the teacher says you can assume Definite Integral for now and so and so Limit, he thinks- "Unless I understand what Limits and Indefinite integrals really are, I can't solve this assigned problem. I'll feel comfortable only when I am able to understand everything at once like in Physics. Unknowns make me nervous."

Advik's mind gets caught up in a flurry of worries.

Story Q1

Where do you think Advik is getting stuck in this story?

Story Q2

How Advik is responding to this situation demonstrates a thinking pattern called "All or none" thinking. In "All or none" thinking we are able to accept something only when we receive all of it, or all is right or complete or perfect. In Advik's case, he feels he needs to understand all - Limits, Definite and Indefinite Integrals, completely before he can attempt his Math problem. Do you relate with this kind of thinking pattern?

- a. Yes
- b. No

How can we help Advik?

- e. By asking him to take one step at a time and not try to know everything at once
- f. By asking him to investigate a little on whether this kind of thinking really helps him and try to change his thinking patterns
- g. Try the problem to see whether he can actually do it without knowing Limits and Indefinite integrals
- h. Something else _____

There are ways to adapt our mind to new ways of thinking. For example, Advik can start practicing Finding the Evidence and Whole thinking to not let these challenges stop him from doing his best.

What is Finding the Evidence?

Advik has a false belief that until he knows everything, he cannot attempt the problem at hand. He fears that he won't feel confident unless he knows it all. But he can challenge that belief by trying to find the evidence of truth in it. How?

For example, he can try to solve the problem at hand and see if that helps him develop any confidence. While he spends time trying the problem there will be some learning which he is completely ignoring. He

might even understand Limits and Indefinite integrals better if he tried to solve the Definite Integral problem, who knows?

Next, what is Whole Thinking?

Whole thinking means accepting both black and white, good and bad in any situation and still responding well. Here Advik is reacting to the unknowns about Limits and definite or indefinite integrals. He only accepts knowns and rejects unknowns. But reality always has both sides. So we can train our mind to practice acceptance of both sides, we become less reactive and more present and available to do the job at hand.

Do you think you have thinking patterns that fall under “All or none” thinking?

- a. Yes
- b. No

Let us do a practice that helps us change our mental patterns-

1. Use the principles of lesson 3, 4 to understand what a thought diary is.
2. Use the thought diary to write down a situation where you feel uncomfortable, or have unhelpful thoughts and are unable to respond calmly.
3. Also note down your respective thoughts, feelings and behaviors.
4. Note which of these thoughts and feelings are helpful or unwholesome.
5. Also note how these mental and behavioural patterns are contributing to distortive thinking.
6. Now start with Finding the evidence in our erroneous thinking patterns and developing a Whole view. Try to think of some alternative thoughts or perspectives which are true in your context. For example, in Advik's case he fears unknowns so thinks- “I'll feel comfortable only if I understand everything at once.” And feels frustrated. But his alternate thoughts can be, “I can try the problem and see if I still feel as confused or frustrated as before” or “Even though I may not understand everything, I can at least try to understand something”.
7. Your Alternate Thoughts or perspectives-
8. Associated feelings-
9. Possible behaviors-
10. Practice this daily.