

Stories and Doodles as Teaching Aids in Science

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This article emphasises the importance of the art of storytelling in mainstream education even in subjects such as science teaching and outlines the method of creating story boards with doodles for classroom teaching.

Communicating is the key to every human life. Right from the moment we are born, we start communicating in various forms: we cry to let the world know that we have come alive into this world. This has led human beings to discover various forms of communication and storytelling is one among them. We get introduced to stories right as an infant from our mothers' bedtime stories and grandma's tales and we start narrating stories of our own from school, from our playing sessions, be it Ramu beating or Somu not sharing his cycle to play with. The stories have been etched in our lives.

Every story we have been told while growing up had a moral, or takeaway, and the best thing is that we still remember them. For example, we still recall the story of the Hare and the Tortoise, when we talk about slow and steady winning the race.

But all these happens in one's life maybe till the age of ten?! After that, which we get so caught up in studies that we totally forget to narrate and articulate. The art that we were born with just dies inside us: But why discontinue something that we have been doing since birth and when that something is so very powerful: why not incorporate it in the curriculum instead!

Storytelling and cognition

Stories provide an opportunity to relate and organise important experiences in life. Though most of storybooks are associated with pictures, the words in the stories stimulate the production of pictures inside the brain of the child which develops thinking and imaginary skills in children. Putting together the imaginary story to make sense improves reasoning skills in children which are also the requirements for math and science.

Inception of this Idea

In May, 2018 I attended an experiential science learning workshop recommended by one of my

colleagues and it was one of the best places I have been to. We did lot of working models many science concepts: centrifuge, chromatography, diffusion were three among them. It was in this workshop that I met a storyteller who talked about weaving stories for explaining technical concepts like sun, solar system etc. for children. That is when the idea of teaching science with stories struck me and I went on the internet to find such story books. To my disbelief and disappointment, there were not many such storybooks or other resources that could be used in the academic context. That is when I decided to do my own storyboards with simple doodling for basic sciences.

Creating your own story board - an introduction to doodling

Doodles are simple drawings or scribbles which can be made without much effort and at the same time have a concrete representational meaning. Though they are not a mainstream educational tool yet, I prefer them because one need not be an expert artist to doodle and the simplicity of resources needed to create them, namely, a pen and some paper which makes doodles a perfect academic tool.

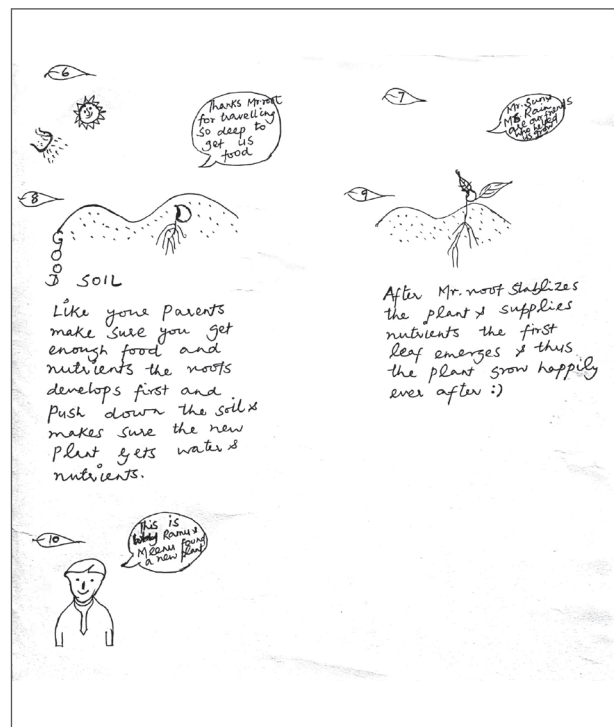
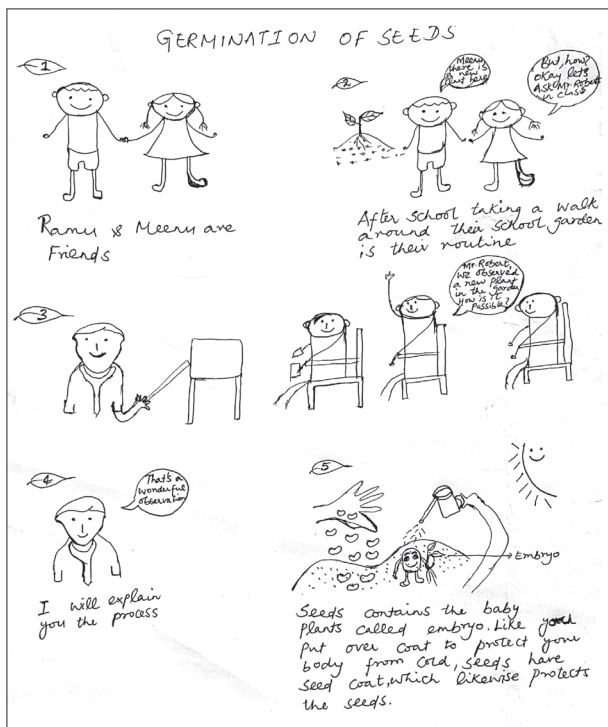
Materials required: A piece of chart paper or white sheet, a pen, topic on which you want to create the story and a story idea.

Time estimate: Less than an hour when you have a rough concept in mind

Method: After deciding on the story, divide your sheet into boxes and doodle your story step by step in each box. You may choose to write the story in words below each doodle or make the children do that.

A representative story board on germination of seeds:

I have created a story board on germination of seeds to give an idea of how a science story board can look. Though I have created it in a sheet, drawing, each step in a separate piece of chart would work better.



A storyboard for the germination of seeds

The concepts like hard seed coat and soft seed coat can be demonstrated with corn and tomato.

This technique can also be combined with experimental teaching technique for a better impact. For example, at the end of the story, the teacher can ask the students to sow their own seeds and let them experience what they have learnt.

Since visuals & stories are something that attracts children and are close to them utilizing it for teaching 'supposedly' tough subjects like science would be a smart teaching step.

References:

1. www.billwoodstoryteller.com
2. <https://en.wikipedia.org/wiki/Germination>

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