Teaching Astronomy to Children

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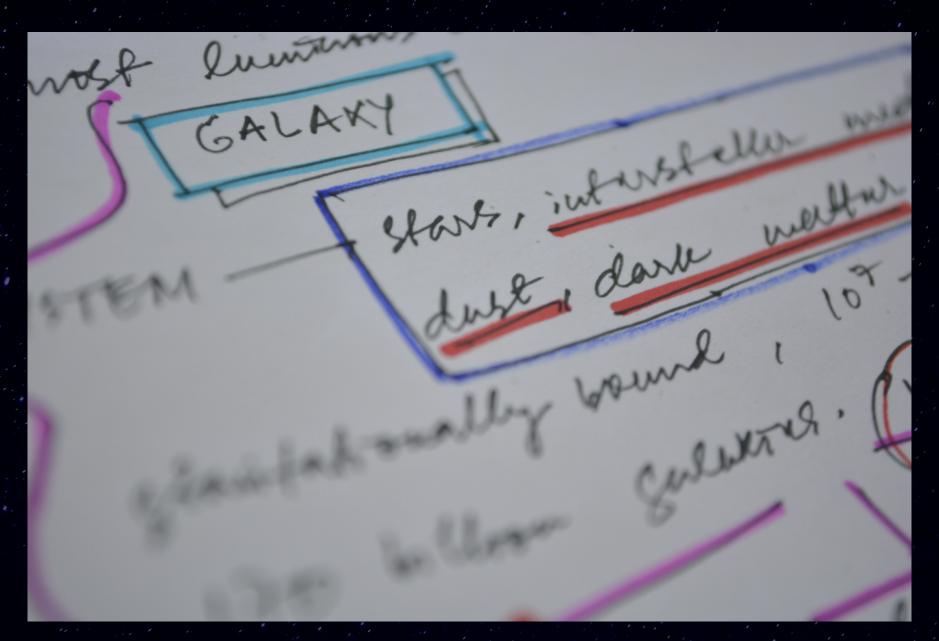


I absolutely love Astronomy!

"In Astronomy one must apply equal measures of analytical thinking and imagination, logic and intuition, to answer the most fundamental questions about the cosmos." — American Astronomical Society

Gesture based game Spacetime and Black Holes

Brushing up ...



Nehru Planetarium Available means

Meeting the stakeholders



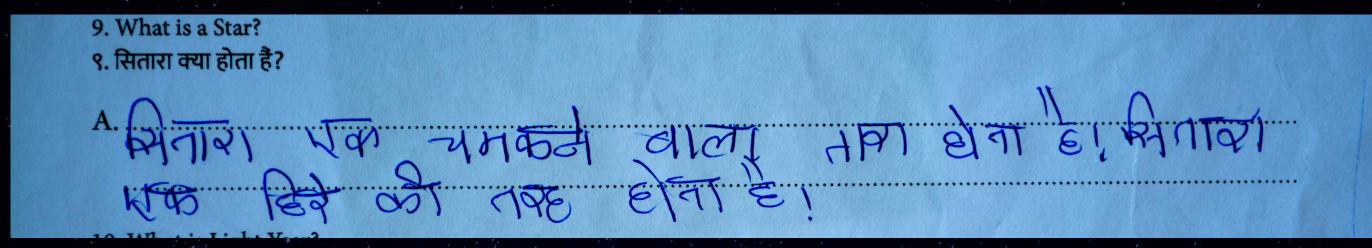
About 35 students (Class VI - X), 6 teachers Questionnaire and interview

Question categories

Factual questions: Naming the planets in our Solar System.

Image identification questions: Identifying planets, comets, supernova etc.

Concept based questions: Concept based questions were size related, time related and scale related questions.



"... a Star is like a diamond."

Astronomy I like astronomy because I want to study about a astronomy I water to go in se space. I wont to see a Whole thing in the glani galaxy.

"... I want to see a whole Galaxy."

Insights

Lack of enthusiasm

Language barrier

Gap in understanding concepts

Shortcomings in available solutions

Key opportunity areas

Vastness — size and time.

Recognition of celestial bodies.

Phases of moon / Eclipse / Seasons.

Too much to remember.

reference, activity, fun, story

Concept 1: Reference cards



PURPLE PLANET

Sed ut perspiciatis unde omnis iste natus error sit voluptatem accusantium doloremque laudantium, totam rem aperiam, eaque ipsa quae ab illo.

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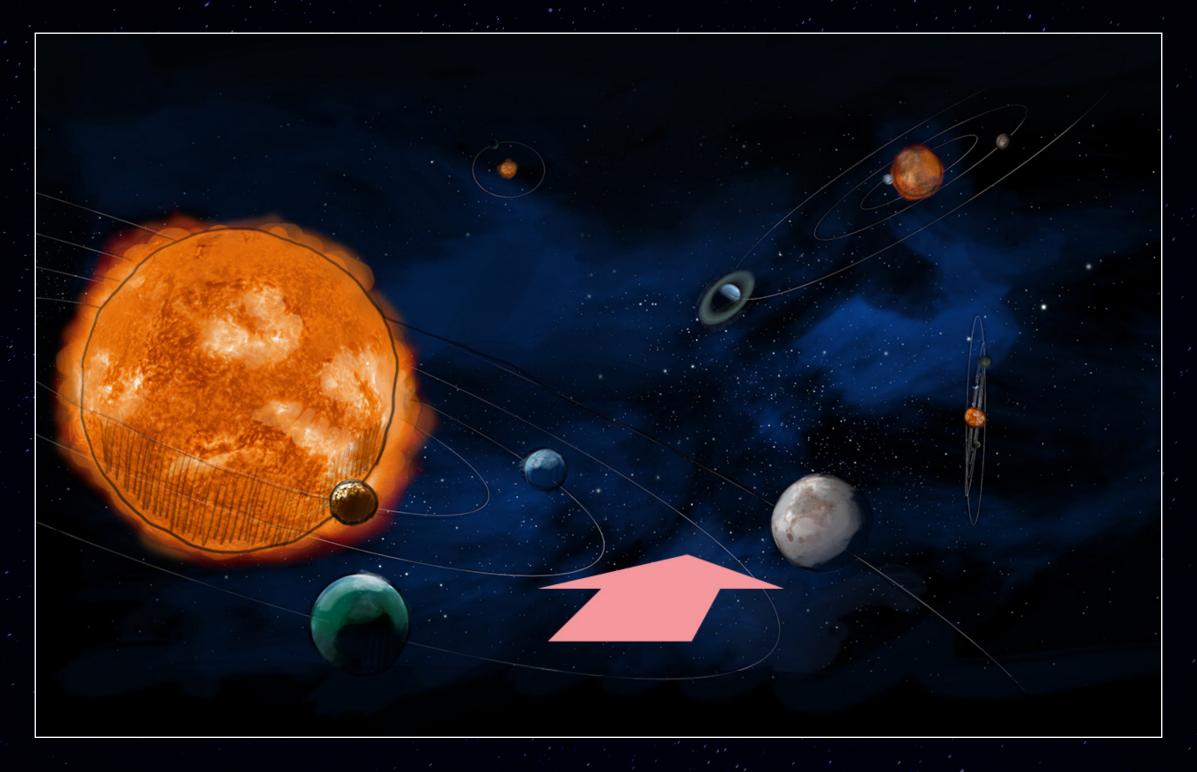
RFID tagged cards with information about different celestial bodies, cosmic events

Concept 2: Point and scale app



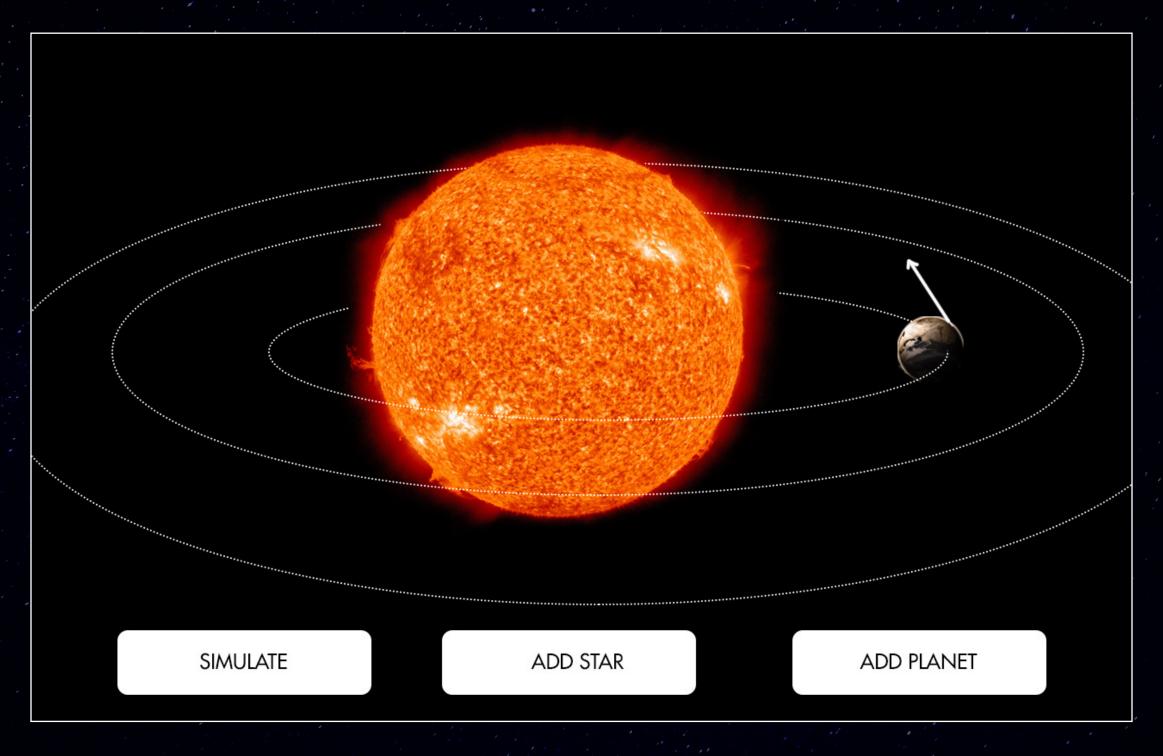
app saves the image and superimposes the scaled object in it

Concept 3: Space journey



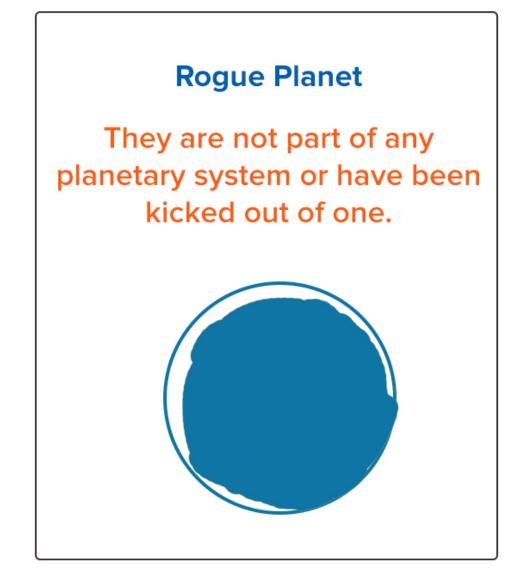
gesture based 3D space tour with adjustable speed and time

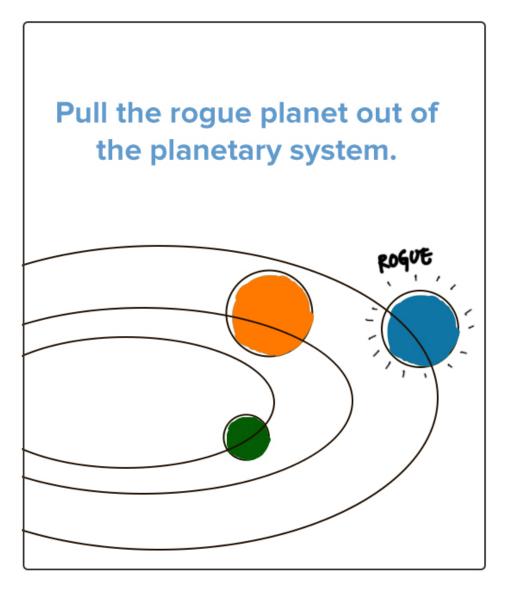
Concept 4: Planetary system builder



putting the different planets, satellites, asteroids etc. in their orbits

Concept 5: Universe facts game





fact / definition immediately followed by a related fun activity

Concept 6: Interactive tabletop game



elements, events and visuals on top of a storyline

Personal evaluation

Involvement of both students and teachers.

Cost involved in procuring the solution.

How fast can it be upgraded?

Teaching / Learning Aid

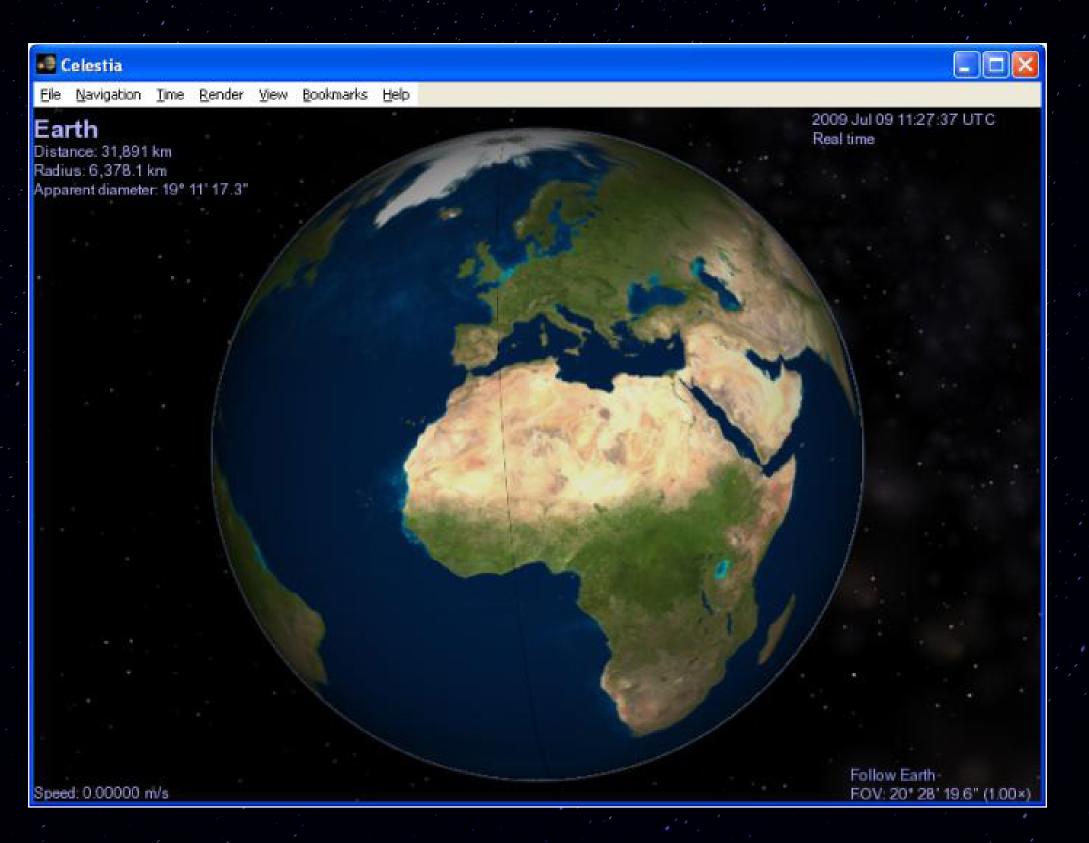
Teaching / Learning Aid Solar System

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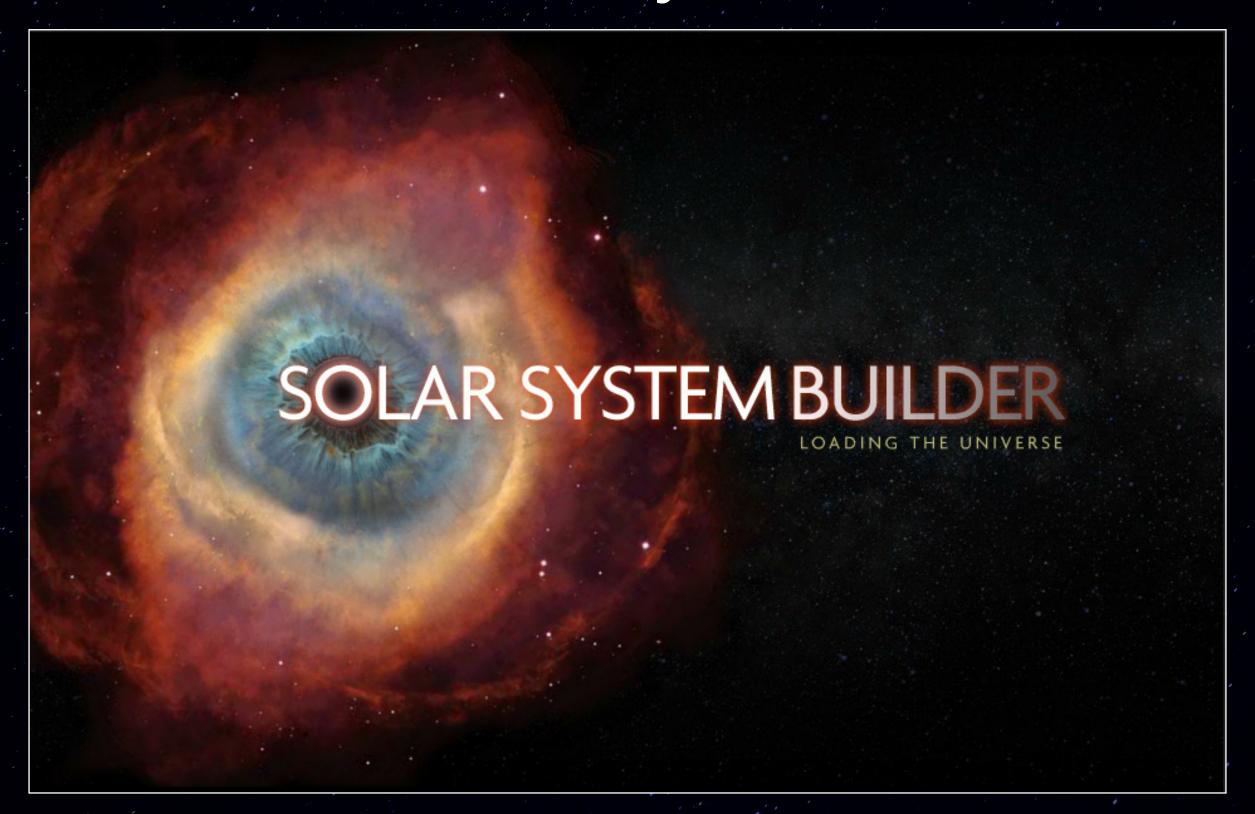
Understanding the Solar System.

Experiencing it.

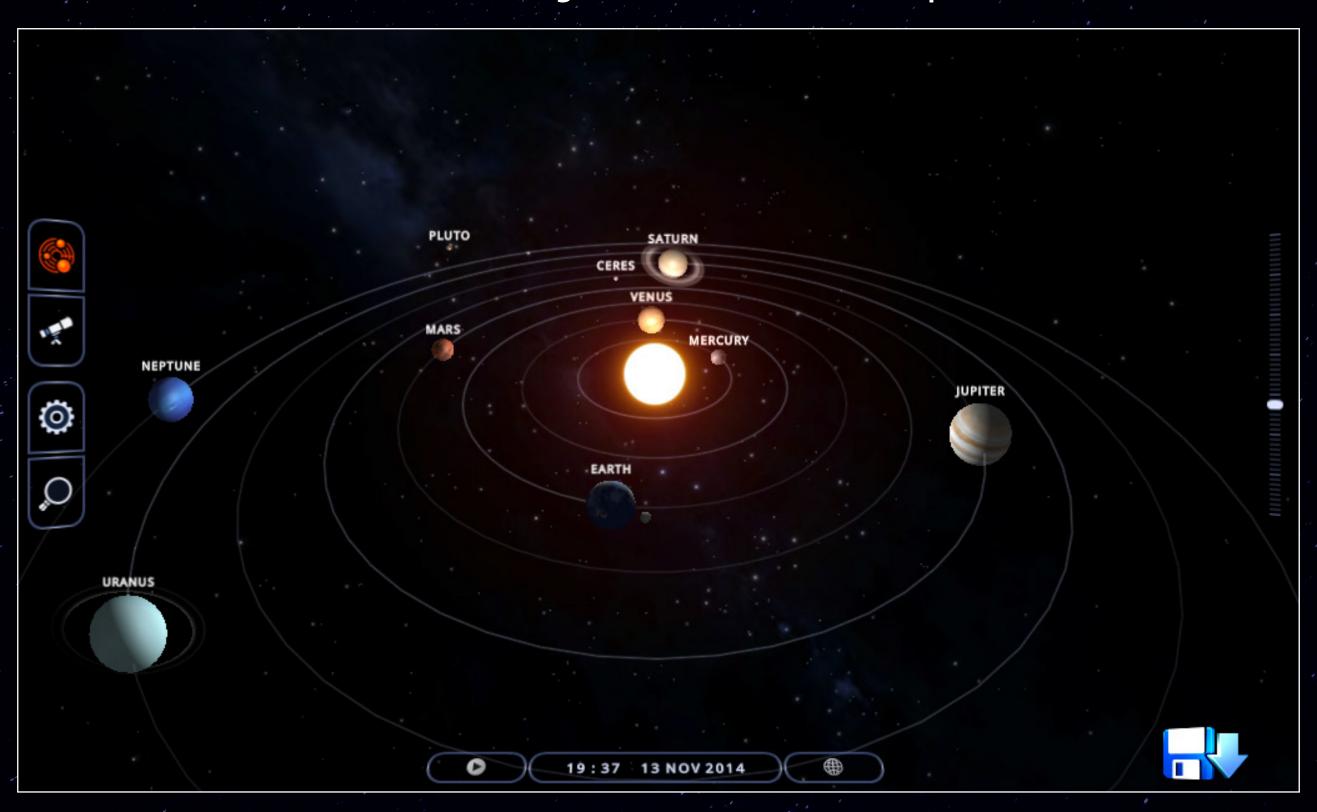
Celestia



NatGeo Solar System Builder



Solar System Scope



Odyssey

Feedback & Evaluation



Workshop Classroom activity by teachers

Questionnaire

Factual questions: *Arrange the planets is ascending order of their size.*

Image identification questions: Identifying planets.

Concept based questions: *Explain the changing of seasons.*

Future scope

Adding more elements, scaling it up

Incorporating 3D technology

Integrating Leap Motion / Microsoft Kinect

According to Astronomy, when you wish upon a star, you're actually a few million years too late.

The star is dead. Just like your dreams.

Thank You