Building computational thinking skills through projects embedded in the local environment

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(Foundation for Education, Ecology and Livelihood)

Number of students and grades: Classes 1-5; 24

Teachers: 4 teachers all subjects Number of teachers are involved in CT: All

Number of periods per week for CT: Not designated

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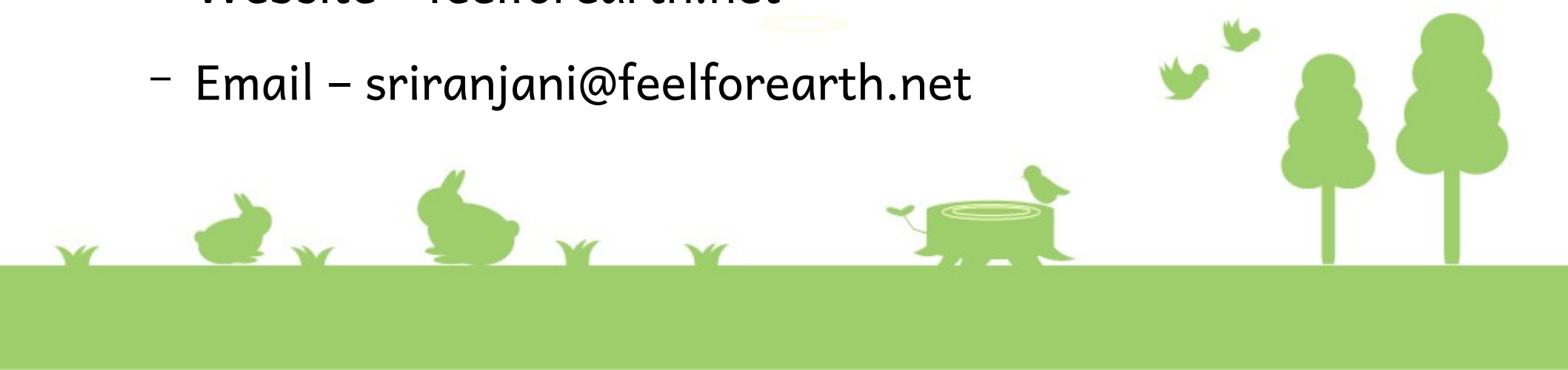
About us

- We work in 3 areas – Conservation, Education and Livelihood
- Two primary schools in two tribal communities and 3 learning centers in nearby villages
  - 40 children in our schools
  - 120 children in the learning centres
- For more information:
  - Website – feelforearth.net
  - Email – sriranjani@feelforearth.net



What is this presentation about?

- In our school, children do many outdoor activities that are linked to the environment

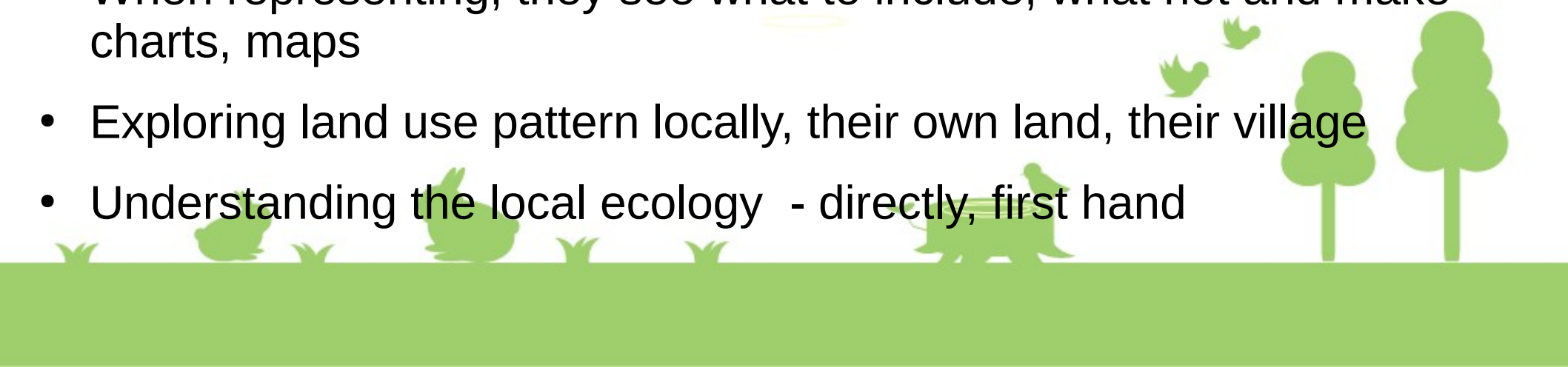
- I want to present here about 1 such project – of land use mapping and how such a project has elements of CT

A completed land use map

Children collecting data,
This is a project on bird study

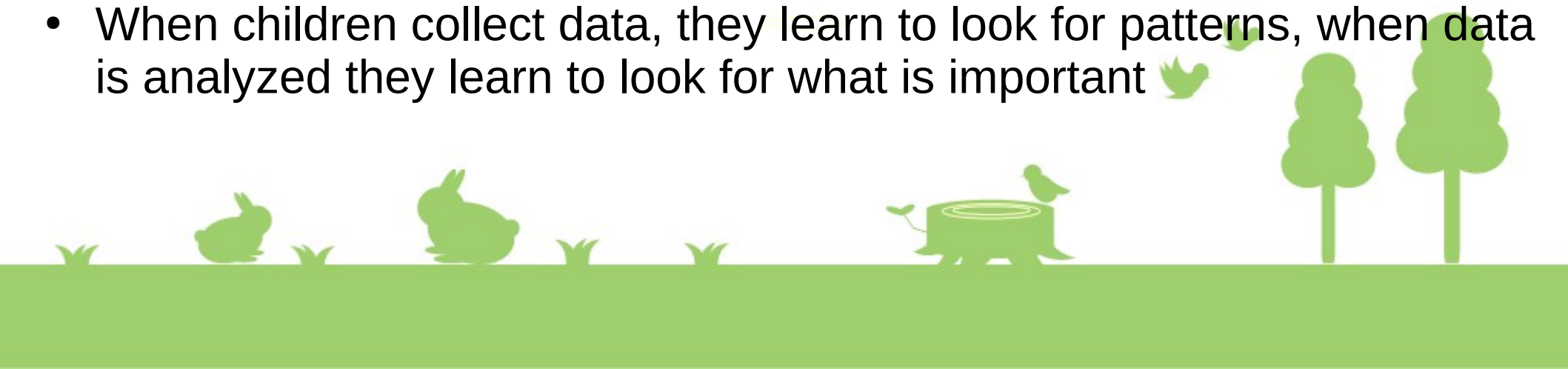
Children's learning

- When children do projects like this, they explore freely, they learn how to approach a problem, how to study it in orderly manner
- Systematic study how to classify, collect data. They were themselves making classifications of data
  - - for example in bird study, how many birds of what kind, sizes of birds, comparison, parts of birds, colours
- They were communicating with each other, with adults
- Lot of mathematics – sorting, counting and adding, collecting data,
- When representing, they see what to include, what not and make charts, maps
- Exploring land use pattern locally, their own land, their village
- Understanding the local ecology - directly, first hand



Elements of CT in environment projects

- In each project, the things to study or know is different but the methodology is common
- When doing the project, it is first broken into smaller parts (areas) for study, what to do in each area was discussed, data collected and compiled
- Some common processes in all projects
  - Planning, Observing, Data collection and representing, Analysis and presenting their understanding
- When children collect data, they learn to look for patterns, when data is analyzed they learn to look for what is important



How was the land use map done?

- **Planning** the study: Identify area, selecting age group of children, making groups, any materials needed for the project, planning the observation, explaining how to do the project to the children

  (this was repeated for several areas to be observed)
- **Field observation**: How to observe, which area, how do we observe both sides, what all one has to observe
- **Data collection**: Observe fields and collect data. Through fields walking what are the crops, gardens, empty lands, hillocks and water bodies, animals, houses
- **Representing the data** in charts/ pictures and analysis

Thank you

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