Collaborative Unit Planning Activity

Digital Technologies Content Descriptor
Follow, describe and represent a sequence of steps and decisions (algorithms) needed to solve simple problems (ACTDIP004)

NSW Syllabus Outcomes
uses a structured design process, everyday tools, materials, equipment and techniques to produce solutions that respond to identified needs and wants

Title and Introduction: An introduction to computational thinking.
Introductory activities with step by step, Exploring activities – hands on, unplugged and leading to plugged, Culminating in students exploring and developing individually.

Activity
Unplugged:
Barrier Games
Beading – make your name
Binary activities - http://www.mrmaynard.com/activities/binarycards/
Robot game – students being robots (possibly teacher being the robot and students programming)
Snap with chess board – symbols upside down on the ground (student giving instructions to their peer) SNAP game

Plugged:
Beebots
Sphero (Exploration)
- Triangle on the ground
- Paint on Sphero (with a barrier)
- Scribble bot
- Basic maze
- Follow simply instructions
- Change light

Scratch Junior

Assessment and Reporting
Beebot assessment: Program Beebot to arrive at a certain destination or object (satisfactory)
Program Beebot to arrive at a certain destination or object via alternate descriptors (above satisfactory)
Create their own set of descriptors to represent the code (or path taken) (GAT)
Presentations
Informal Observations
Anecdotal notes
Rubric (on digital technologies

Resources: Code.org
http://csunplugged.org/ (Book) ie binary cards etc
Beebots / Sphero
Ipad, tablet or desktop
Beebot mats, grids
Beads