Outline of Sokoban Lessons

Materials:
* One computer per student, either in computer lab or one laptop per student in regular class.
* AgentSheets program loaded on all machines.
* Internet connectivity for each computer and/or tutorial as separate document on each computer

Day 1:
- Share unit objective, end product requirements and grading rubric
- Initially teacher to model each step rather than have students use the tutorial unassisted
- Create sokoban, floor and wall agents
- Remind students not to spend too much time on artwork- can modify the agents later
- Create a new project and a new worksheet
- Add agents to worksheet – design layout of game
- Sokoban able to move in all four directions

Day 2:
- Modify sokoban’s behavior so he cannot move through walls
- Create crate agent, add to worksheet and save
- Introduce Push computational thinking pattern
- Four steps required: (complete 1 and 2 today)
  1. Sokoban sends push messages to crate
  2. Crate reacts to push messages
  3. Crate sends move messages to sokoban
  4. Sokoban reacts to move messages

Day 3:
- Continue utilization of Push computational thinking pattern
- Four steps required: (complete 3 and 4 today)
  1. Sokoban sends push messages to crate
  2. Crate reacts to push messages
  3. Crate sends move messages to sokoban
  4. Sokoban reacts to move messages

Extension activities:
- Ways to win game.
- Multiple levels of increasing difficulty
- Scoring – for example, number of moves counted to get crate to goal with fewer being better