Enhancing the Tutorial Project I

Using your tutorial1 project:

1. Envelopes - Creating percussive sounds:
   - Click **Envelope Library** button at bottom-left of the screen and follow the Tutorial instructions to create new envelopes.
   - Create an envelope with the following coordinates:

     x=0, y=0;

     x=0.13, y=1.00; set new segment to EXPONENTIAL (red) and FLEXIBLE

     x=0.21, y=0.28;

     x=1.00, y=0; set new segment to EXPONENTIAL and FLEXIBLE

2. Spectrum:
   - Click on the **Folder Spectrum** to create a new object, sp2
   - Click on *Spectrum sp2*
   - Set **Deviation** to 0.8
     - For Partial 1, Insert Function and choose EnvLib
   - Select Envelope 2 and scale 1
   - Add 4 more partials and scale them, respectively, to 0.7, 0.45, 0.21, and 0,15
3. Click on Bottom s1:
   - Drag *Spectrum sp2* into the white box where it says **Child Type | Class |Name** underneath sp1
   - Raise **Number of Children to Create** to 45
   - Leave **Child Start Time** Random between 0 and 25
   - Click on **Child Type** - Insert Function
     - Choose **Select**
       - For **Choice index**, Insert Function, choose RandomInt, Lower Bound=0, Higher=1
       - Add 2 nodes: enter 0 in the first box and 1 in the second box
   - Click on **Child Duration** – Insert Function
     - Choose **Select**
       - For **Choice index**, Insert Function, choose CURRENT_TYPE
       - Add 2 nodes: enter 3 in the first box and 0.2 in the second box
     - set **Max Child Duration** at 3 sec.
   - Click on **Reverb** – Insert Function
     - Choose **REV_Simple**
     - **Room Size** – Insert Function
     - Choose **Select**
       - For **Choice index**, Insert Function, choose **CURRENT_TYPE**

- Add 2 nodes: enter 0.7 in the first box and 0.01 in the second box

4. Save Project
5. Click on Project:
   - Synthesize

Change the seed of your random number generator and produce another/more version(s).

How can you make the difference between sustained and percussive sounds more obvious ?

HINT: in this case, percussive sounds sound better if their frequency is low (but still in that range) and if they are louder than the sustained sounds.

EXPERIMENT