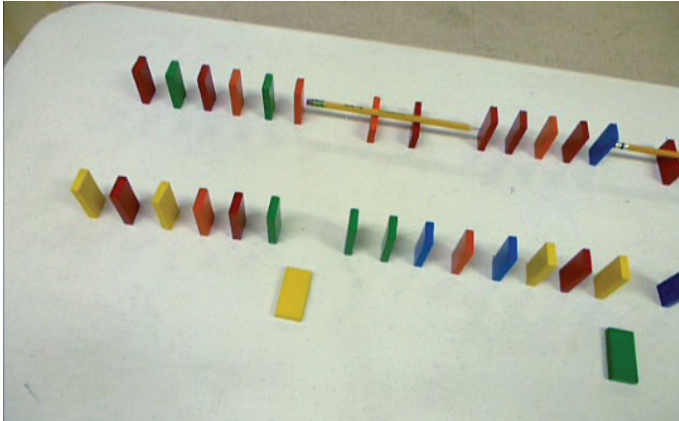


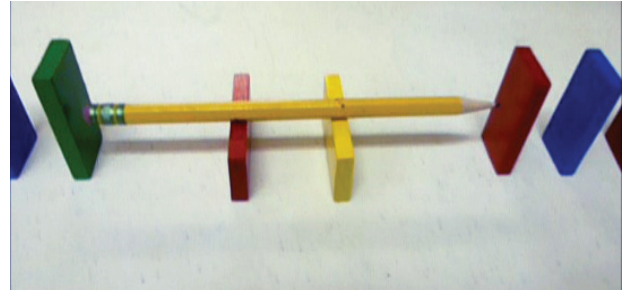
Activity 52.1: Saltatory conduction demo using dominoes

You will need: a set of dominoes, or small blocks that can be used like dominoes. You'll also need some long pencils to represent Schwann cells.

You will make two lines of dominoes, one just a regular line, and the other having simulated Schwann cells. Then you will have a race between the two to see which can "carry a signal" faster.



The bottom row is the regular line-up. Notice how a few dominoes have been left out here and there. This is to prevent the entire line from tumbling if you accidentally bump them while setting up. Put these spacers in last, when you are all done.



The top row has simulated Schwann cells, using pencils to represent what the Schwann cells do. They allow the signal to be transmitted across that space without the continuous action potential. It is a great time-saver not having to run the action potential all the time.

You can even use longer push bars. I found rulers a bit too heavy, though; they slowed it down enough that the race results were not as spectacular. Perhaps long thin dowel rods would work, or even some plastic straw taped end to end.

To see a video demonstration of this, go to [YouTube.com/TheBasementWorkshop](https://www.youtube.com/TheBasementWorkshop), click on Playlists, then on A&P Lessons 25-54. This video will be listed under Lesson 52.