

Activity 3 De Nova Assembly

First activity:

1. This game is a simple simulation of de novo assembly. You can think each piece is a read and the whole picture is a genome. If you successfully assemble all pieces then you get a genome.
2. Take away edge pieces because in de novo assembly you can't tell if a read is an edge or not. In a regular jigsaw puzzle, you can.
3. The whole picture will not be shown beforehand because in de nova assembly the whole genome is unknown to us. You need to figure it out by yourself.
4. When you are done, inform your teacher you are done.

Next,

- Please execute the following commands to assemble reads
 - `./megahit -1 simple_read1.fastq -2 simple_read2.fastq -o result`
 - `ls`
 - `cd ./result`
 - `ls`
 - `wc final.contigs.fa`
 - `head final.contigs.fa`

Questions:

What surprised you once you saw the SARS-Cov 2 genome sequence?

Why is it important for scientists to figure out SARS-Cov 2 genome sequence?

How could knowing the genome of one virus help us combat another virus?