



Story-Based Game

Math Integration in Biology for Education

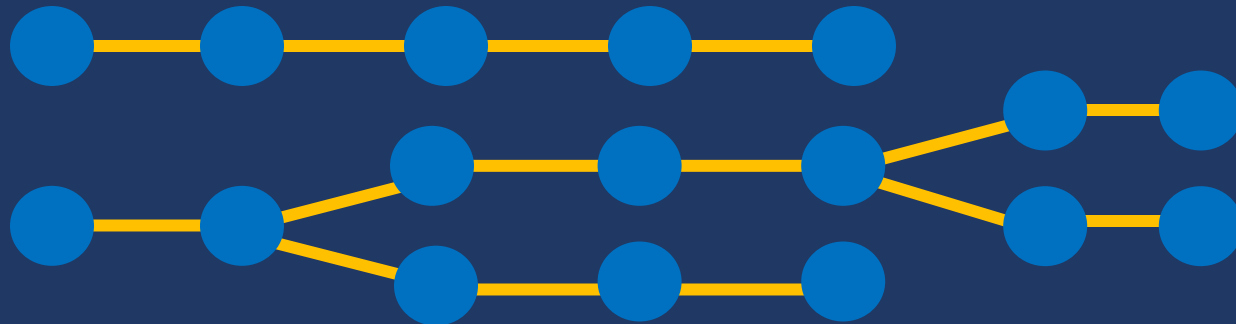
Mathias Tejera & Fadhlan Muchlas

Story-Based Game



Elements in Story-Based Game

Story (Linear & Non Linear)

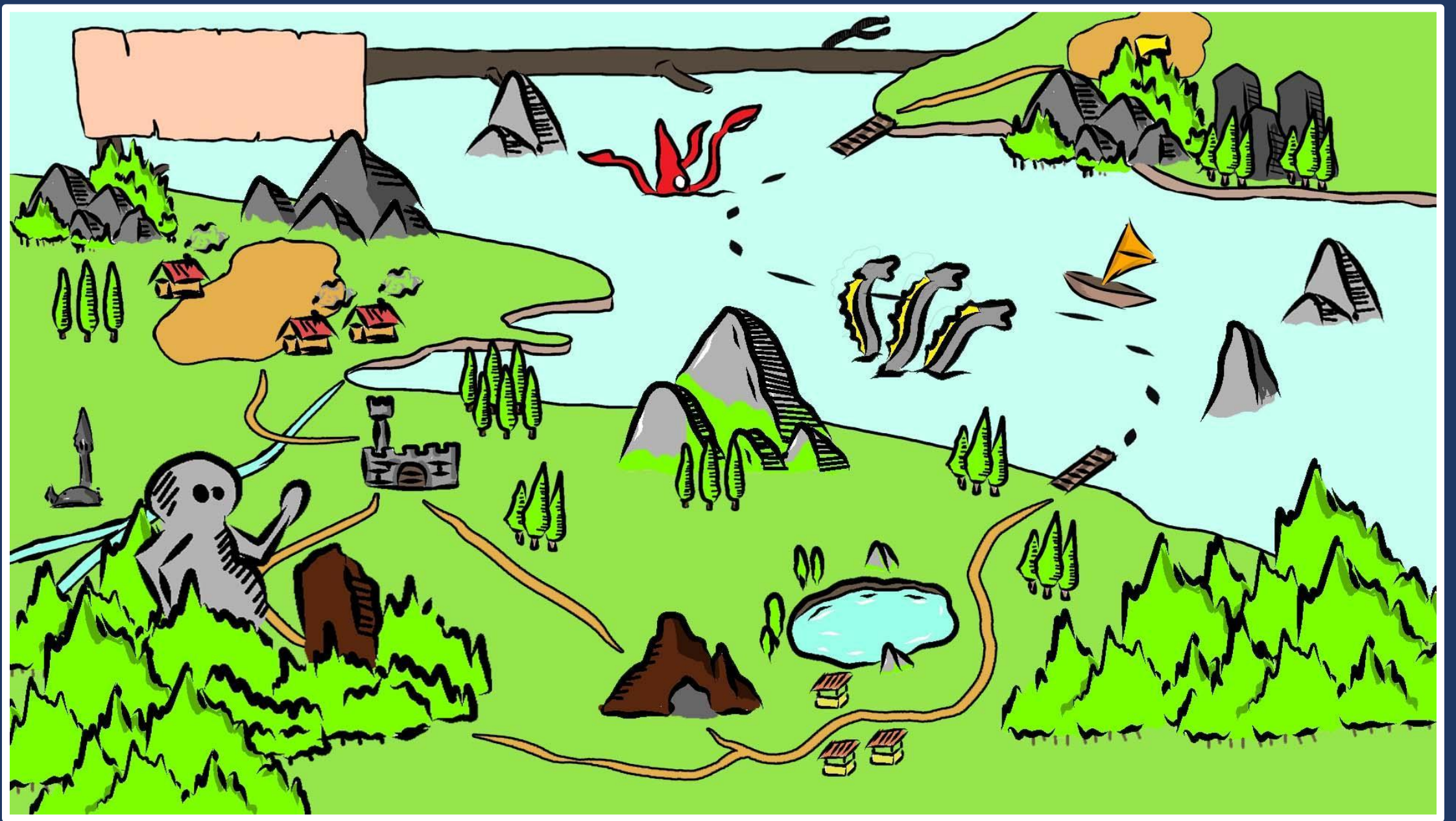


Characters

Mapping System

Puzzle





Game 1. The Witch and The Hero



Genre : Role-Playing Game
Theme : Fantasy
Biologi Topics : Environment
Math Integration : Infographic

The Witch
&
The Heroes



Map System



Comics



Dialogues

Characters



Game 2. Quiz Plant



Genre : Puzzle - Platformer
Theme : Adventure
Biology Topics : Plant Morphology
Math Integration : Geometry

Game Features

Comics as tutorial

Siap masih ingat pak, saya coba jabarin lagi ya pak.

Hari ini kita akan masuk hutan. Masih ingat kan jenis jenis daun yang dipelajari kemarin.

Jadi berdasarkan kriteria besarnya daun dibagi menjadi 4 jenis berdasarkan luas permukaanya

1. Permukaan paling luas di tengah
2. Permukaan paling luas di bawah
3. Permukaan paling luas di atas
4. semua permukaannya sama

Untuk yang permukaan paling luas di tengah dibagi lagi menjadi beberapa tipe

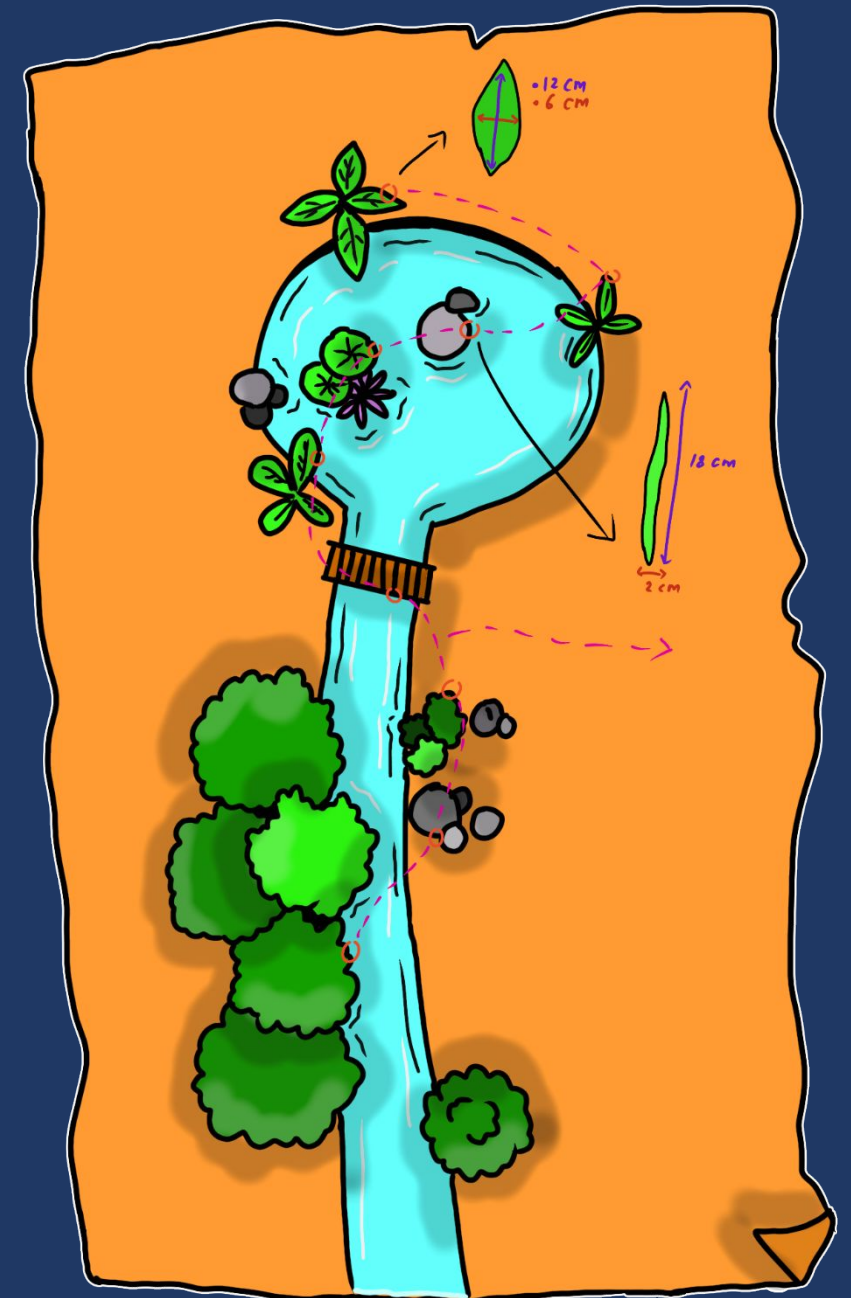
Melingkar/ Bulat jika tangkai dibawah dan penampakan daun membentuk bulatan

Perisai Hampir sama dengan daun bulat namun tangkai berada di tengah daun

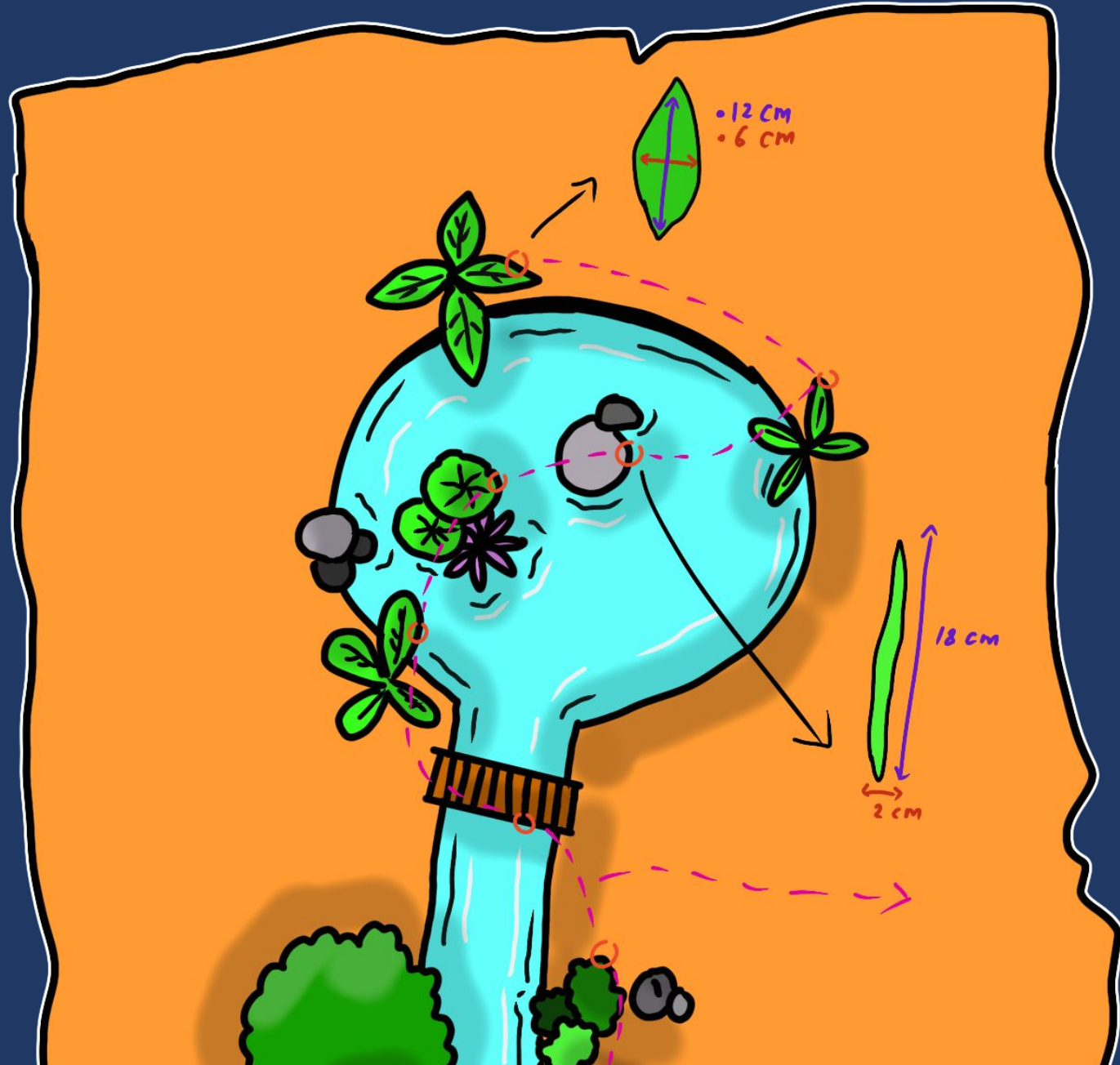
Jorong jika panjang : lebar 1,5-2 : 1

Memanjang jika panjang : lebar 2,5-3 : 1

Lanset jika panjang : lebar > 3 : 1



Map System



Questions in Map

Game 3. MikroBio Math

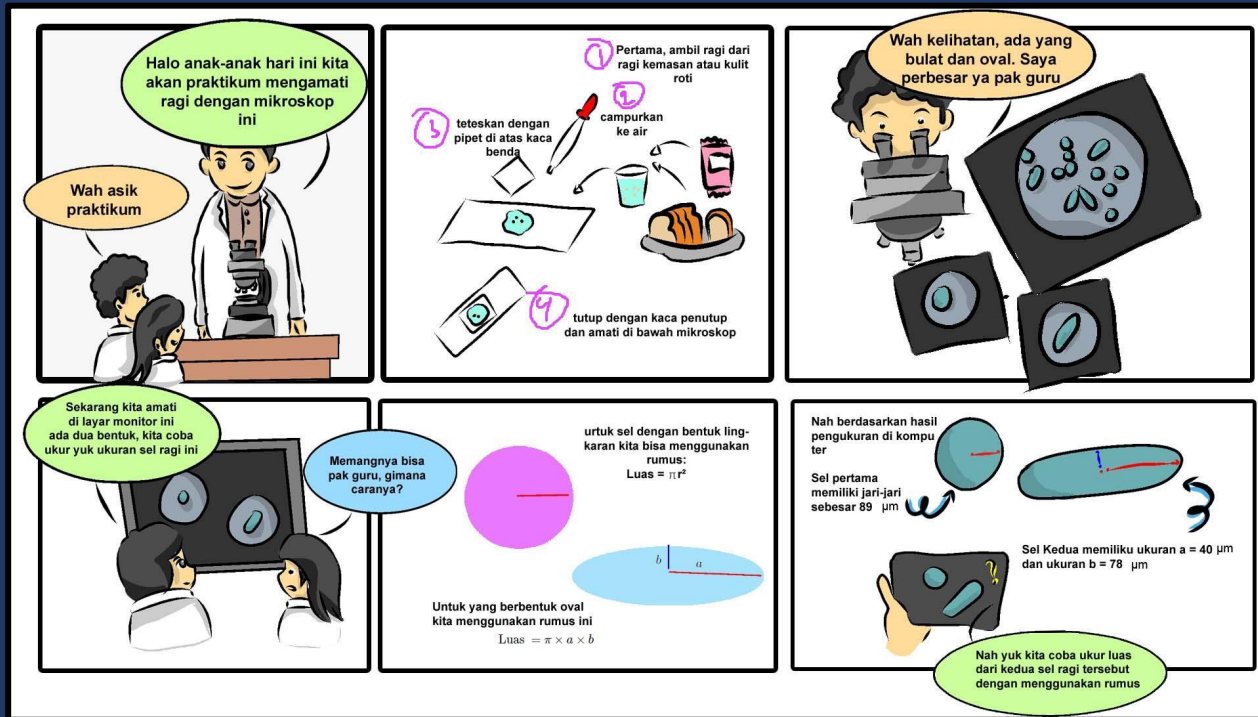
Genre : Puzzle - Platformer

Theme : Science

Biology Topics : Microbiology

Math Integration : Areas of Shape





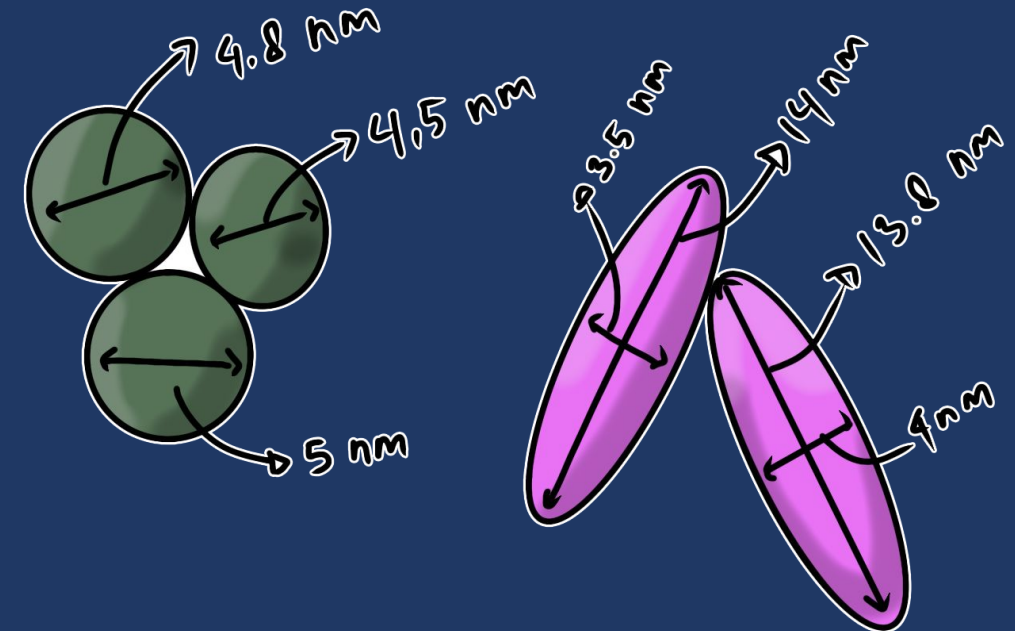
Story in every Level



Bacteria Level



Protist Level



Question



???

Future Ideas



Gamification



Illustration
tools

Math Integration

Video Editing

