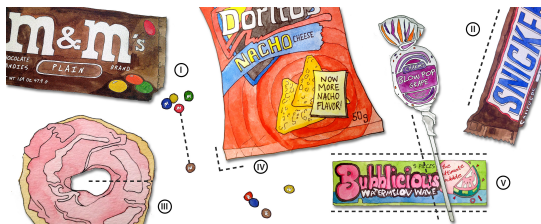


Work with your group up at a board to create 4 sketches:

- 3c) In a hyperbolic sketch, produce a hyperbolic line  $l$  as well as two hyperbolic lines  $m_1$  and  $m_2$  that both go through the same point off of  $l$  but never intersect  $l$ .
- The exterior angle theorem says that the exterior angle of a triangle equals the sum of the remote interior angles.
  - 4a) Create a Euclidean geometry sketch and annotate to showcase that the exterior angle theorem is true there.
  - 4c) Create a hyperbolic sketch and annotate to show why the exterior angle theorem is false there.
  - 4d) Create a spherical geometry sketch and annotate to show why the exterior angle theorem is false there.



<https://pankmagazine.com/piece/euclids-postulates/>