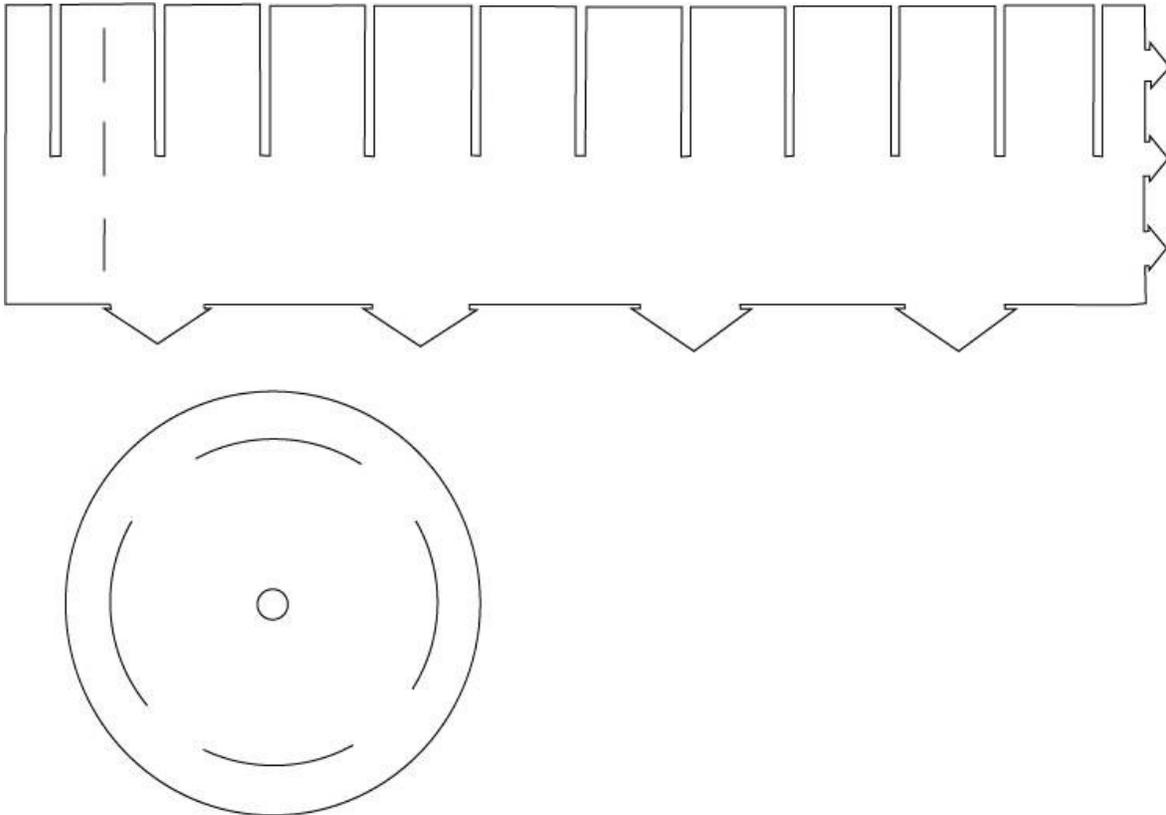


CREATING ZOETROPE ANIMATIONS FROM PAPER

GOAL: *The activity described in this lesson results in the creation of a zoetrope animation. Zoetropes are a form animation that were utilized before the invention of film, and can provide an excellent introduction to the concepts underlying more complex animation techniques. The activity has nine steps and is designed to be completed by students using a personal digital fabricator, but could be attempted by an adult using an exacto knife.*

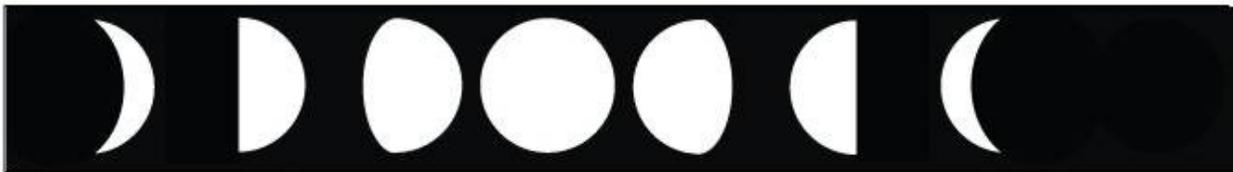
9 STEP PROCESS FOR CREATING ZOETROPE ANIMATIONS

- 1) Use the template below to create the body of the zoetrope machine. The shape directly below will become the *frame* through which the viewer will watch the animation.



- 2) Use the shape directly above to create the circular base that will be combine with the frame to form the zoetrope machine.

- 3) Use the templates below to make rectangular strips of paper that contain the animation keyframes, and that will be inserted inside the zoetrope machine. Alternately, you could use the blank backs of these rectangular strips to create your own animations.



- 4) You have now created all of the components that you will need to assemble your final zoetrope animation machine. [To create a handle for the zoetrope you will also need a pencil.]
- 5) In order to assemble your zoetrope machine, wrap the frame into a circle and insert the three small arrows into the corresponding slits.
- 6) Insert the four large arrows into the corresponding slits on the circular base.
- 7) Insert the eraser end of a pencil into the circular hole in the middle of the zoetrope base.
- 8) Insert an animation strip inside the zoetrope frame towards the bottom, making sure that the frames are facing inward and therefore visible.



9) Hold the zoetrope in your palms, and spin it while looking through the slits in the frame. With the proper angle and lighting, you will see an animation!

10) If you would like a video demonstration of this tutorial, go to:

http://www.youtube.com/watch?v=kDXiBXI-e_U