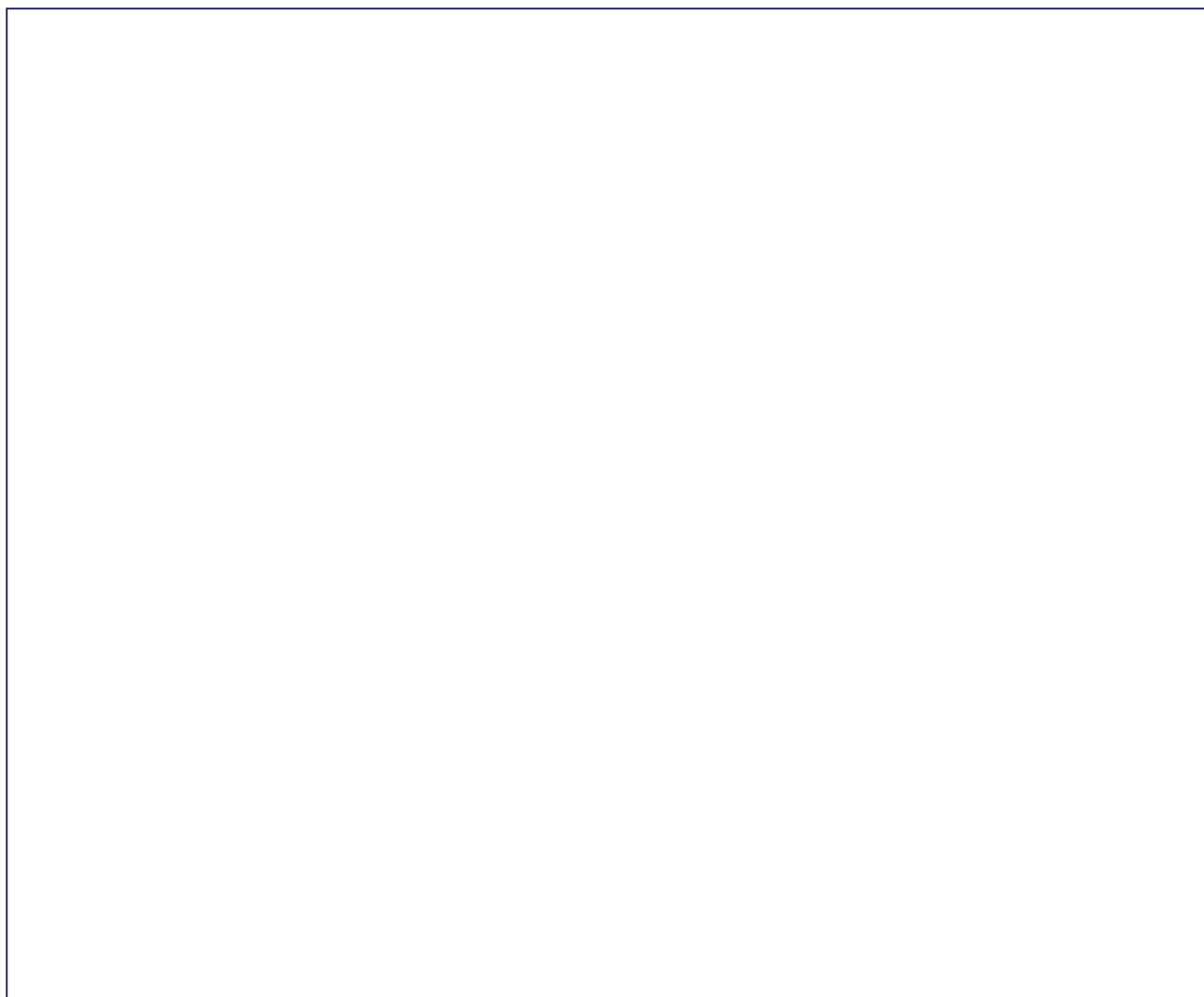


Max's Mechanical Moving Toy Design

Learning objective: To design a mechanical system using levers and linkages to create motion in a toy.

Max the monkey wants to build a mechanical toy for the school playground. Look at the word bank and the drawing prompt to help you design your own mechanism. Use a pencil to sketch your ideas, then label the parts that will move.

Draw: Draw a side-view design of a mechanical toy character (like Max the monkey). Use clear lines to show the character's body and the separate limb that will move. Draw a small circle to represent the fastener (pivot) holding the lever in place. Add arrows to show the direction of the movement (up and down or side to side). Sketch in a 'slot' if your design requires the lever to slide.



Label words: Lever · Pivot · Linkage · Slot · Movement · Card · Fastener

Steps:

1. Step 1: Draw a character from the list above (like Max or Bea) on a piece of card. Where will you place the pivot to make the arm or wing move? Draw a circle to show the pivot point.
2. Step 2: Label the lever on your drawing. Explain why a lever is useful for moving parts of a toy.
3. Step 3: If your mechanism uses a slot, draw the slot on your design and explain what its purpose is.
4. Step 4: Think about the materials. If you were building this in class, why might you choose cardboard

instead of metal or plastic?

5. Step 5: How could you change your design to make the movement faster or slower? Write one idea.