



KEY  
VOCABULARY

**mechanism**

**component part**

**pivot**

**lever**

**fixed pivot**

**moving pivot**

**base structure**

**slider**

**linkage**

**prototype**

a **system of component parts** working together in a machine

**part** of a mechanism

a **point** around which an object can **move or rotate**

a mechanism which uses a **bar and a pivot** to **move heavy loads**  
a lever moves in an **oscillating motion** (in a curve, backwards and forwards) around a pivot – a see saw is an example of a lever

a pivot which is **fixed in place** to a base structure, it **moves at one point only**

a pivot which is **not fixed** to a base structure and **moves freely**

the bottom layer of something, to which a pivot can be fixed

a mechanism made up of a **bar** which moves in a **linear motion** (up and down or across) sometimes through a **slot**

a mechanism that **joins together levers** to **change the direction of motion** – linkages have fixed and moving pivots and create different types of motion

a **model** to try out or test a product – making prototypes can be part of the **design process**

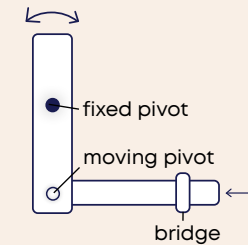


toolbox using linkages

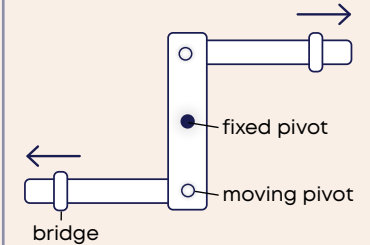


page of a pop-up book  
using levers and sliders

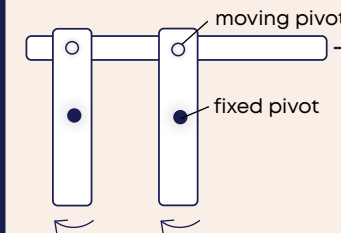
linkage mechanisms



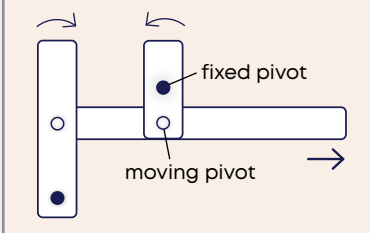
oscillating motion



reverse motion



parallel motion



opposite motion

each different type of linkage creates  
a different type of motion

design criteria

**user**

who is the product for?

**purpose or function**

what is the product for?

**aesthetic appeal**

how is the design of the product pleasing to look at?