

# Product Analysis: A Paper Punch

## Resource Sheet

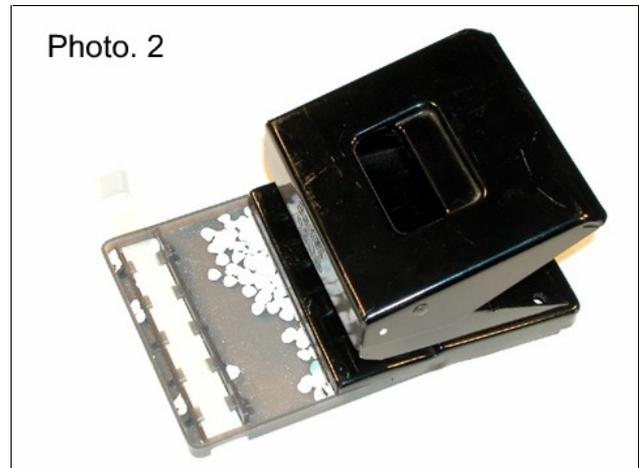
Product analysis is the process of looking very carefully at a product in order to learn how it is made, what it is made from, how it works and how it is used.

If you have a paper punch, analyse it. It will help you answer the questions on the other sheet.

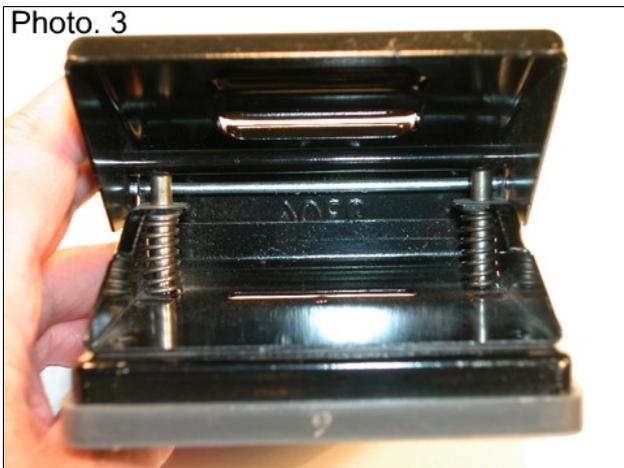
Study the photographs and the notes below and analyse how this paper punch has been made and how it works.



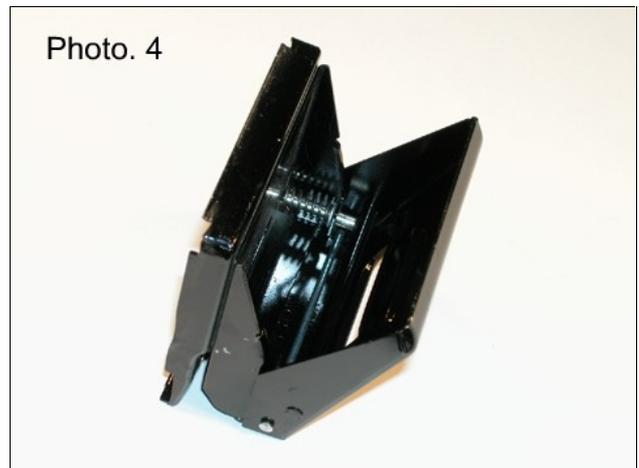
A side view of a typical paper punch is shown. It punches two holes at a standard distance apart.



The paper punch has a tray that catches the paper punchings. There is also an adjustable plastic paper guide that slides in the paper punchings tray



This view of the paper punch shows the punches, the springs and other components.



This view of the paper punch shows that the black sheet metal parts are made from three separate pieces of metal.

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Write your name in the box opposite.	
From the evidence in the photographs, which metal has been used to make the paper punch?  a) Brass, b) steel, c) tin, d) bronze, e) brass.	
How has the metal been coloured black?	
How have the black metal parts been made?  a) By folding sheet metal. b) By machining from a solid block of metal. c) By casting metal in a mould	
Photo. 4 shows that the black metal parts are thin and could scratch tabletops.  How has the designer overcome this problem?	
List three "functions" of the plastic tray.	1. .... 2. .... 3. ....
What is the "function" of the springs?	
The top part of the paper punch is a lever. What is the "function" of this lever?	
Name the class of lever used in the paper punch.	
Explain how the paper punch mechanism works.	