

Supporting Information

Medicine Maker: An Outreach Activity for Pharmaceutical Manufacturing and Health Literacy

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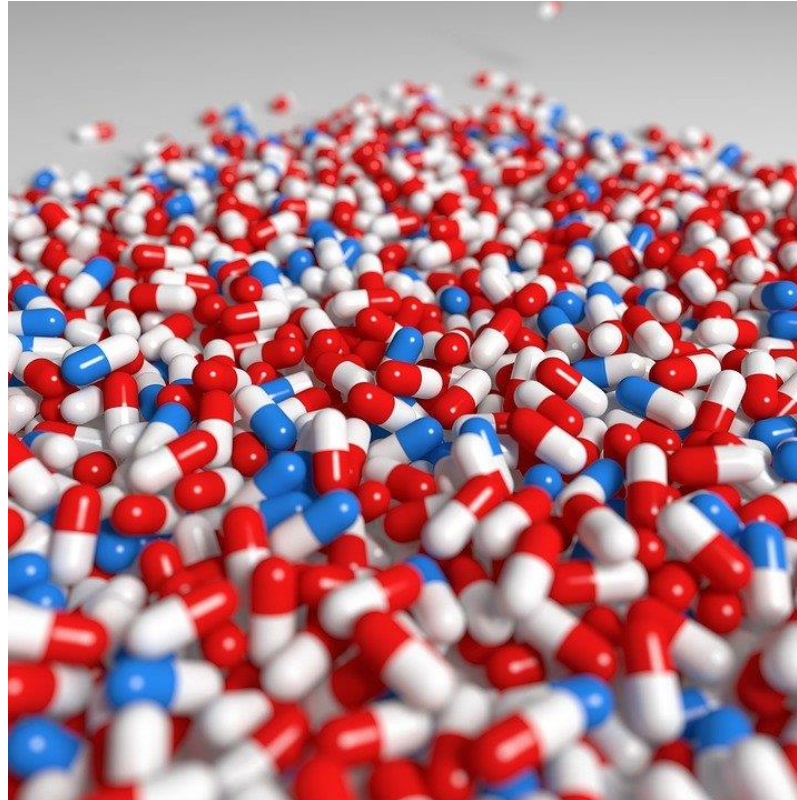
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MEDICINE MAKER

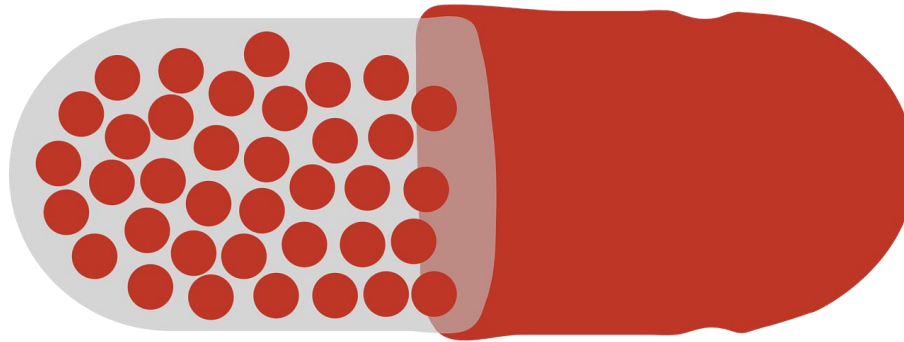


WORKSHOP

THE GOAL – QUALITY CONTROL



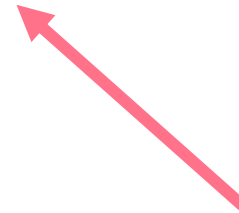
TO MAKE PROXY MEDICINE THAT IS THE SAME IN
EVERY WAY!



Excipient

80 – 90%

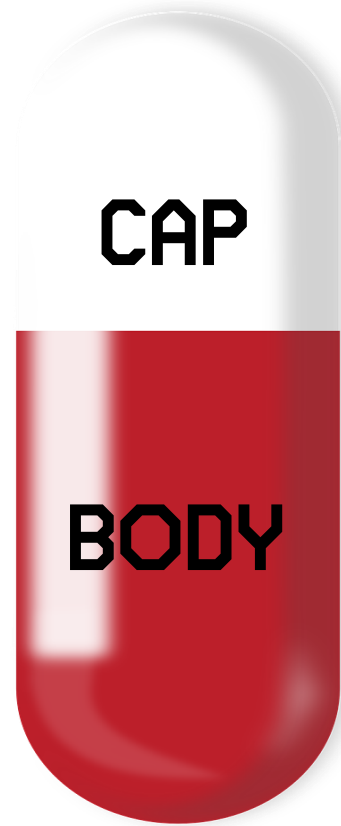
- Cellulose
- Lactose
- Sucrose



**Active
Pharmaceutical
Ingredient (API)**

10 – 20%

CAPSULE

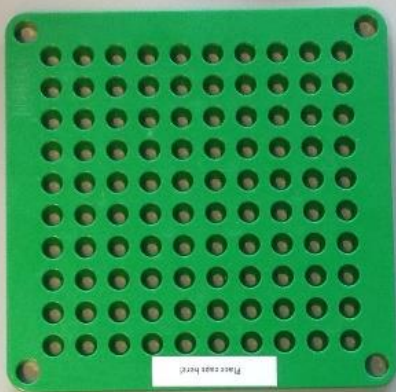


THE GOAL – QUALITY CONTROL

To make medicine that is perfectly formed and exactly the same using a medicine maker kit.



1



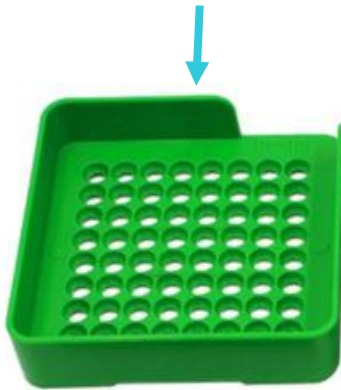
LAY OUT YOUR EQUIPMENT LIKE THIS - 5 MINUTES

2

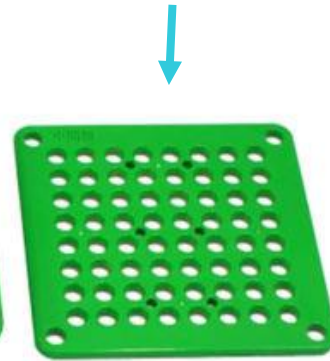
Get to know the Pill Plate



Sorting Plate



Cap Plate



Body Plate



Middle
(orange)
Plate

Powder
Spreader



3

Separate the caps and bodies into the labelled containers with the red lids - 5 mins

CAP

BODY



4

Put the sorting plate on the body plate and pour the bodies into the slots



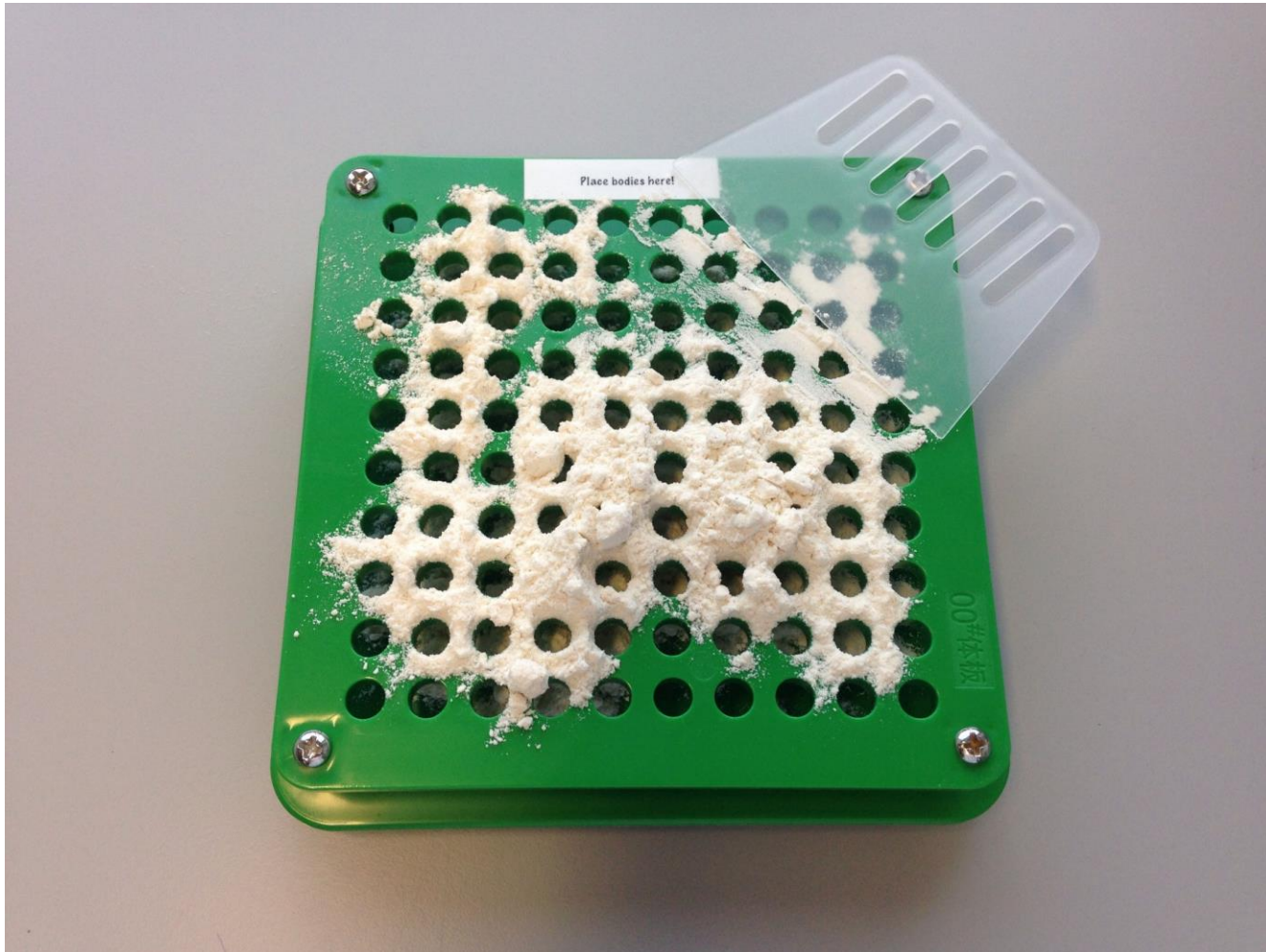
Sorting Plate



Body Plate

5

Fill the pills! Use the API and excipient. Try to make all the pills the same! Do this step inside the lid of the Medicine Maker box.

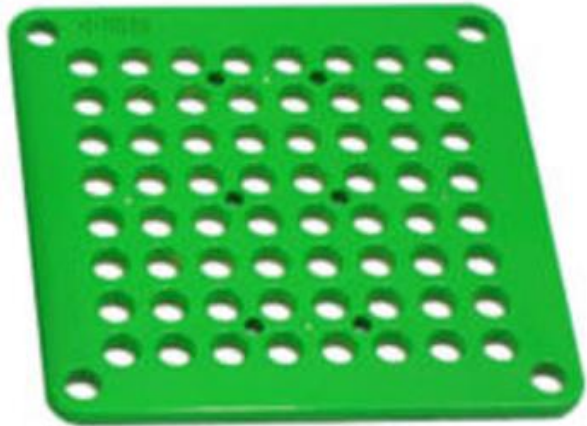


6

Put the sorting plate on the cap plate and pour the caps into the slots.



Sorting Plate



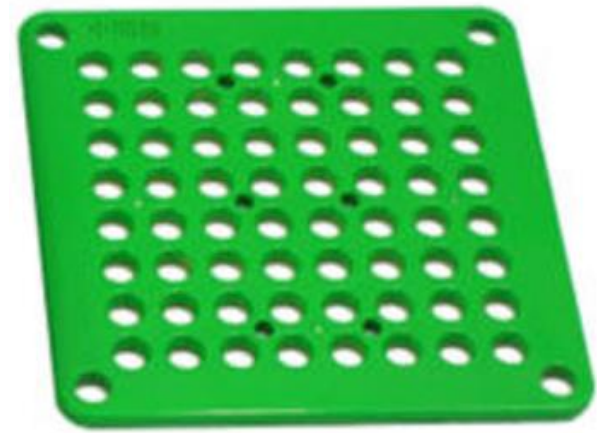
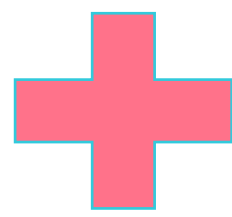
Cap plate

7

Put the middle plate (orange) on the cap plate. Make sure it's the right way around!



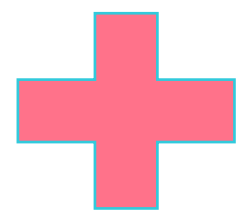
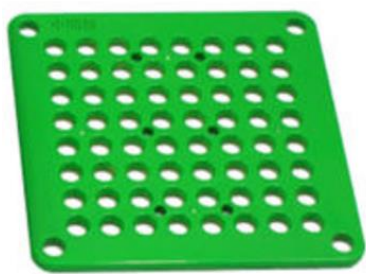
Middle Plate



Cap plate



Place the middle plate and cap plate onto the body plate in a single motion and press the plates together to connect the caps and bodies.



Middle Plate

Cap plate

Body Plate

LET'S CHECK YOUR MEDICINE: 1

Weigh 10 individual pills on the scales and record their weight.

If the lightest and heaviest pill are within 10% of each other, your batch has passed the first test!





Dent



Mashed



Oversized



Double Cap



Bent



Scrape



Different Color



Discoloration



Telescoped



Dirt



Broken Edge



No Print



Split



Cracked



Hole



Improper Print

HOW DO YOUR PILLS LOOK?
ELEGANCE

LET'S CHECK YOUR MEDICINE: 2

Empty out two of your pills into the petri dish and see if there is a difference between the content of the pills.

Use the mini microscope to see the difference between the crystal API and the amorphous excipient.

What do you see?



THANK

YOU!

QUESTIONS?

