

TOOTHBRUSH OF THE FUTURE,



Our team was
stuck at home

No school.
No playdates.
No end in sight.



We wanted
a way to
KNOW if we
had a virus.



Was there
something
we **ALL** did
every day
that could
help us test
for viruses?



Our
mini-
model!

That's when we thought
of the "Toothbrush of
the Future!"

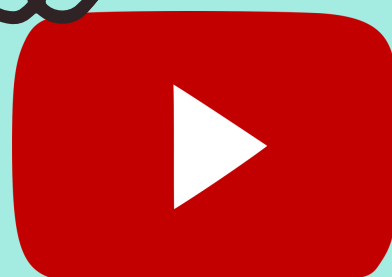
Just brush your teeth
and our toothbrush
uses sensors to
look for viruses
like COVID or the
flu in your saliva.

COVID

FLU

It talks to
your doctors!

CAVITY



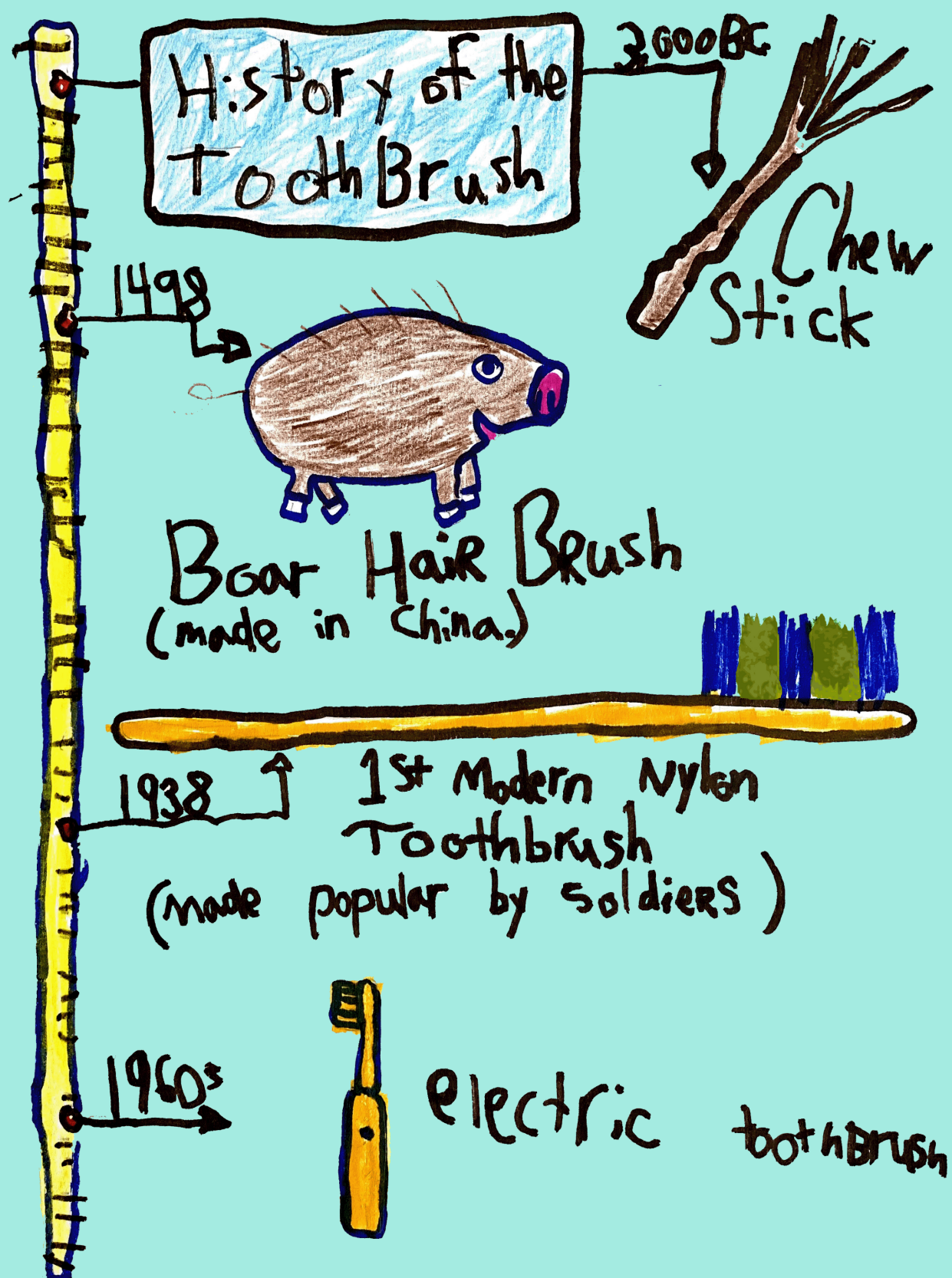
Watch how we made our
idea come to life at:

tinyurl.com/ExploraToothbrush

DOES IT STILL HELP YOUR TEETH?



We Researched Toothbrushes



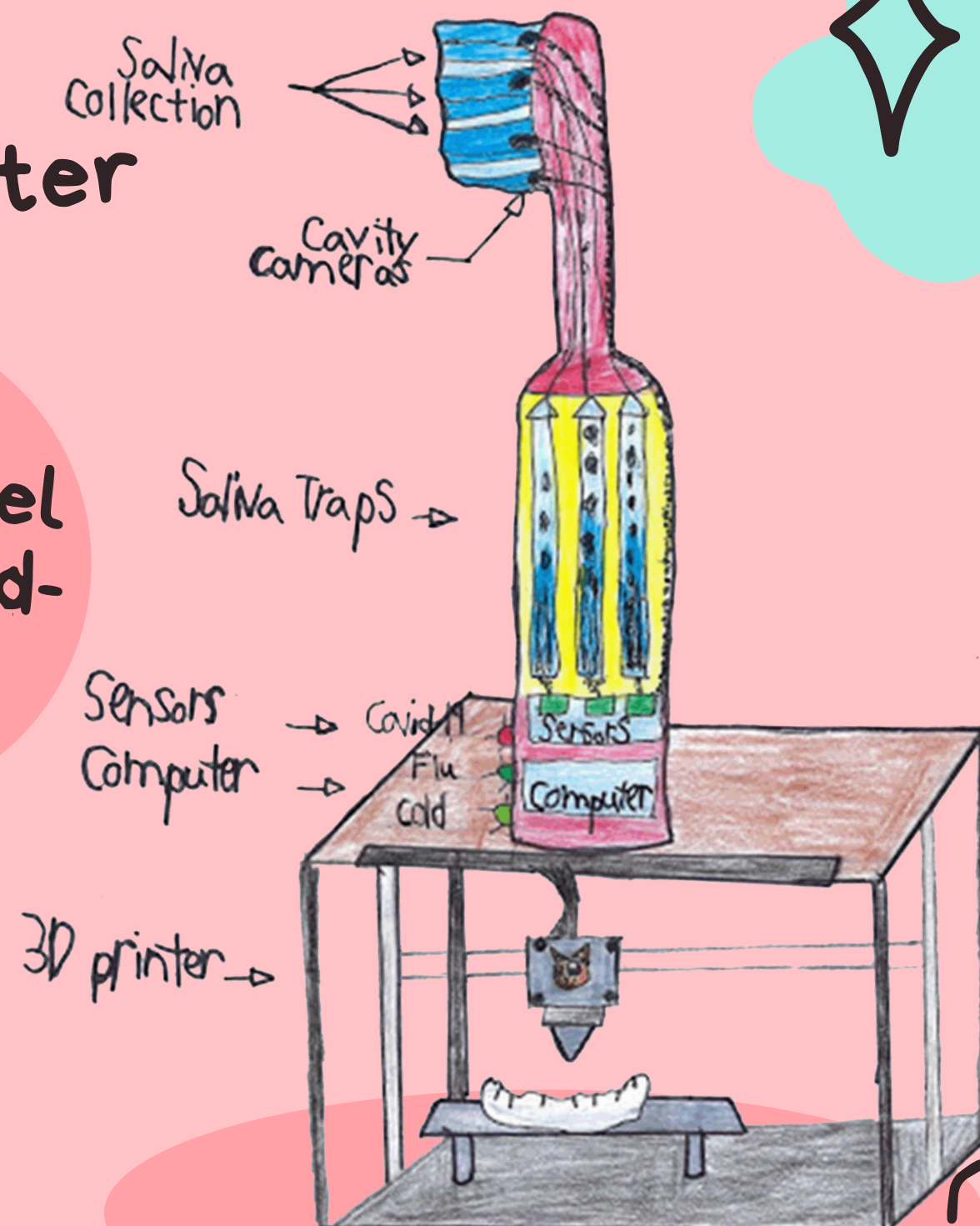
We Decided
it could look
for COVID
and
CAVITIES!



And print braces, retainers &
mouthguards with an added 3d-printer



Our model
of the 3d-
printer!



HOW DOES OUR TOOTHBRUSH WORK?

Sensors + Cameras

Sensors to Spot Issues

Sensors and cameras detect things like temperature, cavities, and viruses. Saliva is collected in special traps for testing by our toothbrush's CPU (that's the brain of our toothbrush!).

Our giant model of the Toothbrush's insides!

CPU (with A.I.) to Identify Problems

A.I., or artificial intelligence, is a program that helps the computer learn. If a computer saw a picture of a dog, it would not know it was a dog without A.I.. But a computer with A.I. can learn which pictures are dogs! Our toothbrush's A.I. can learn to spot cavities and diseases.

WiFi to talk to our Doctors

Radio Waves

Our toothbrush talks to our doctors and dentists through a wireless connection to the internet. The information travels on radio waves. Doctors and dentists can even talk back to our toothbrush--telling it what special tests to run.

3D-Printer to Print Retainers

The camera in the toothbrush sends pictures to the CPU. The CPU uses a CAD program to make a blueprint and sends that to the 3D-printer. The printer prints layer by layer until the braces, retainers, or mouthguard are done!

Saliva TRAPS

CPU

Wifi

