

AR & VR in Education

Erasmus - April 28th 2021

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About me



Ingvi Ómarsson

CIO Skagafjörður School District


1-3 weeks in each grade

A group of nine people, including men and women of various ages, are standing in a classroom. In the foreground, there are several black charging carts, each filled with iPads. The iPads are connected to charging cables. The background shows a whiteboard with various educational materials, including a calendar and some charts. The overall atmosphere is professional and educational.

iPad 1:1

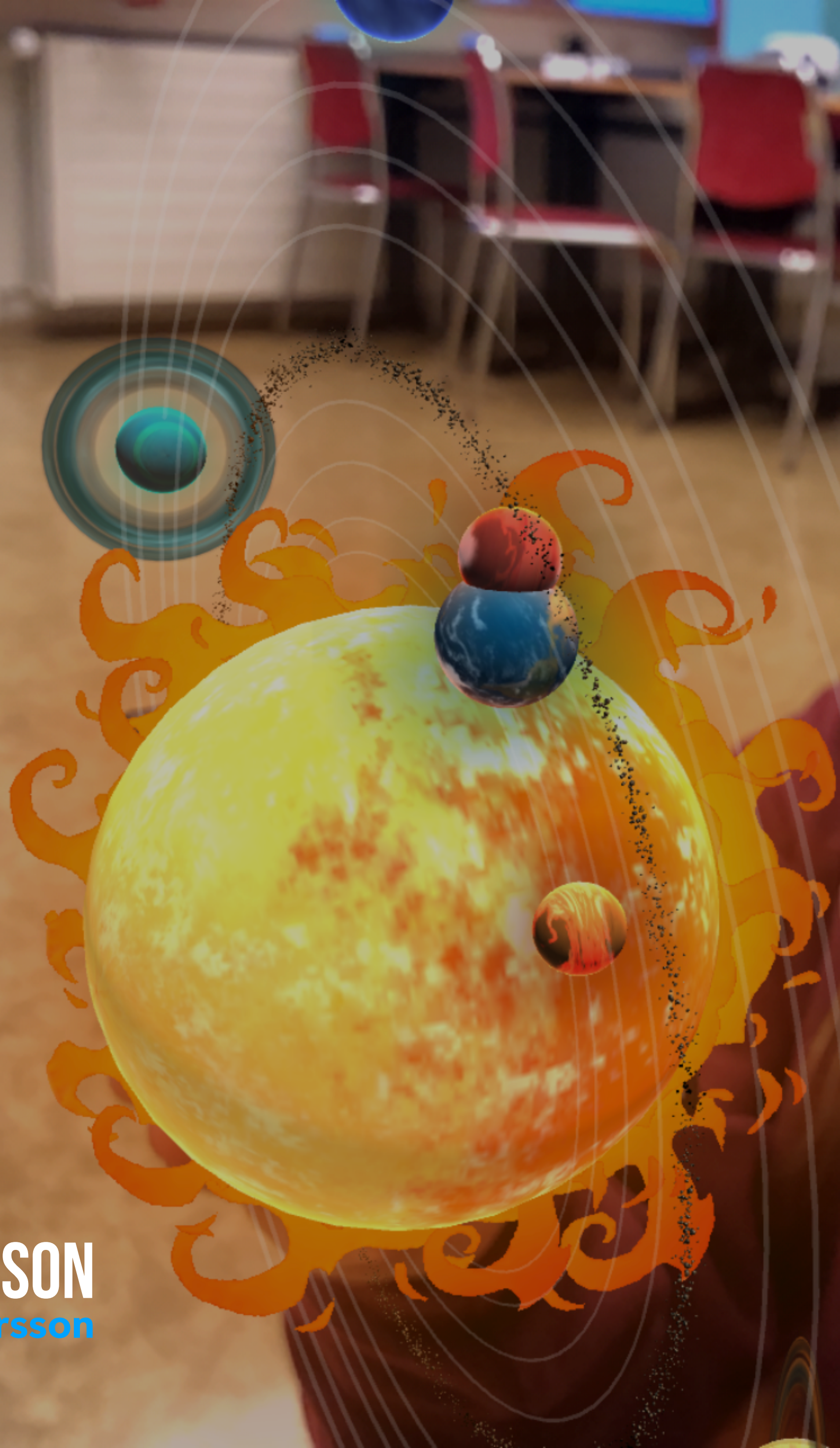
More devices than students

Árskóli 2021



VR vs. AR

What's the difference?



AR

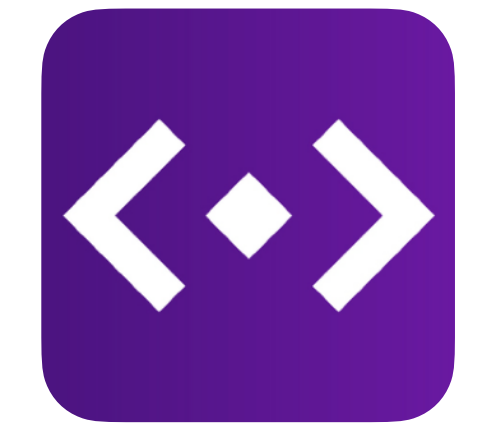
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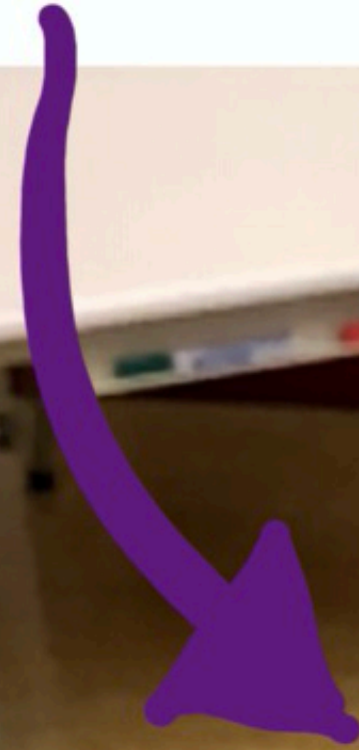
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Merge Cube



Merge Cube



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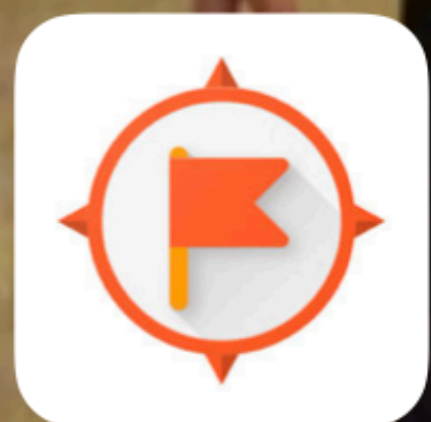


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**Google
Expeditions AR
with an iPad**

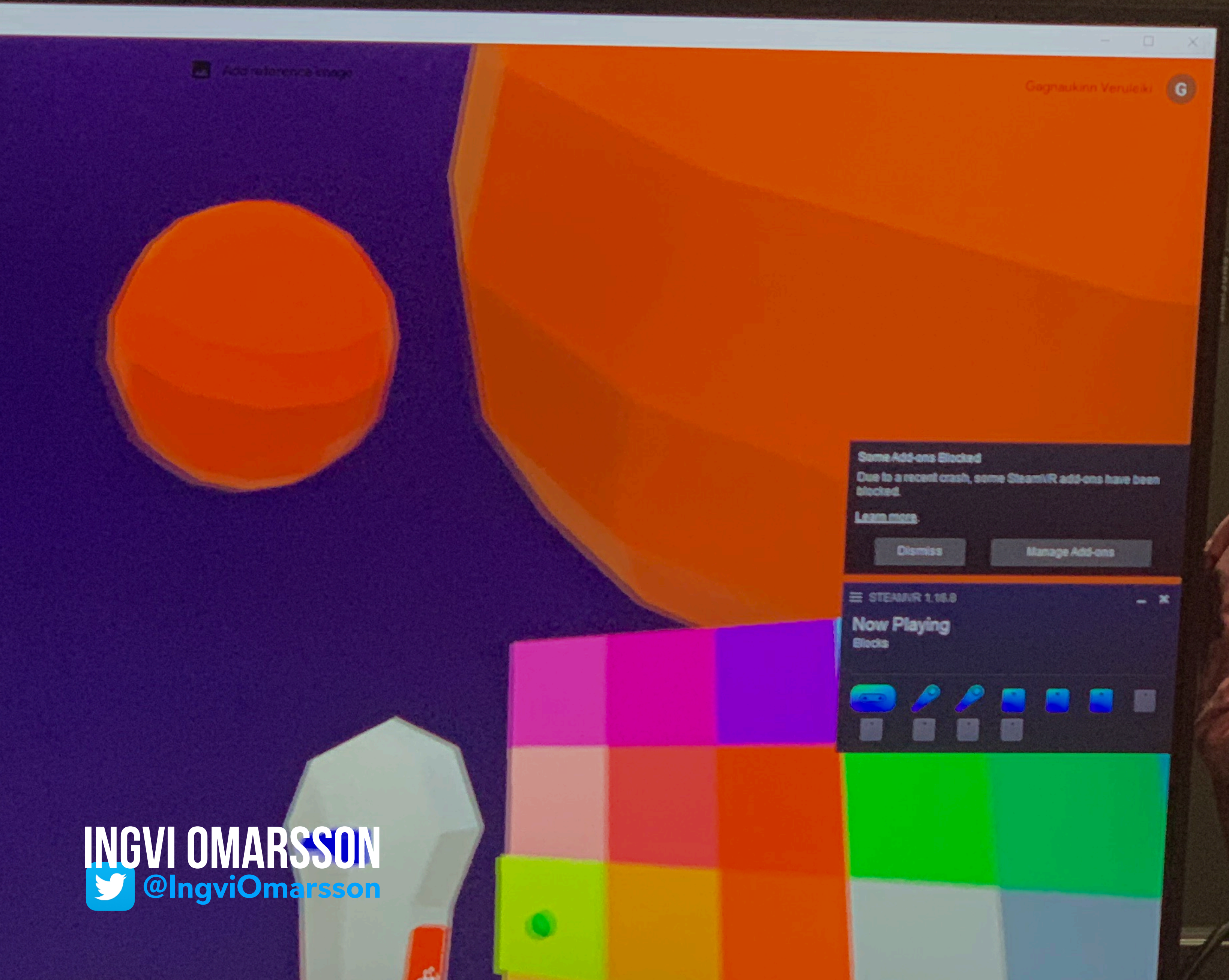


Google Expeditions AR

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VR



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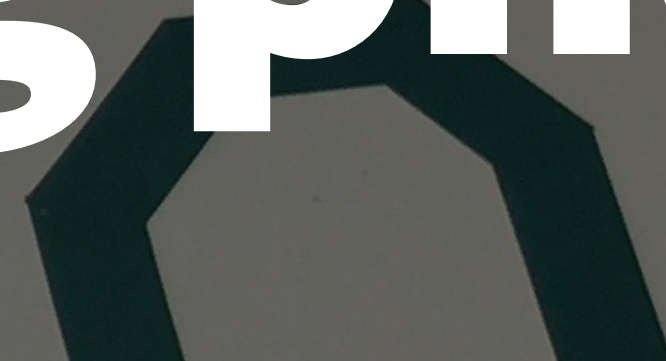


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Back in 2016

22 Samsung phones

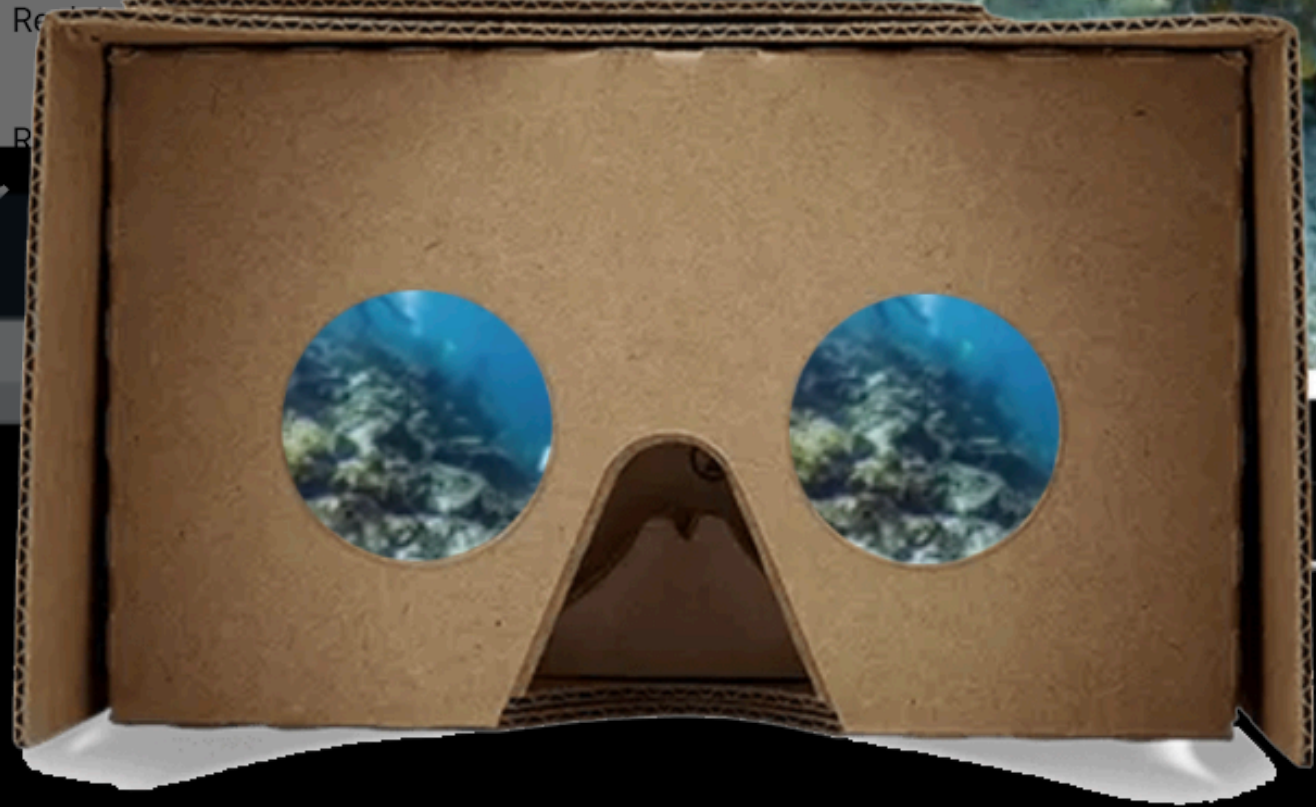
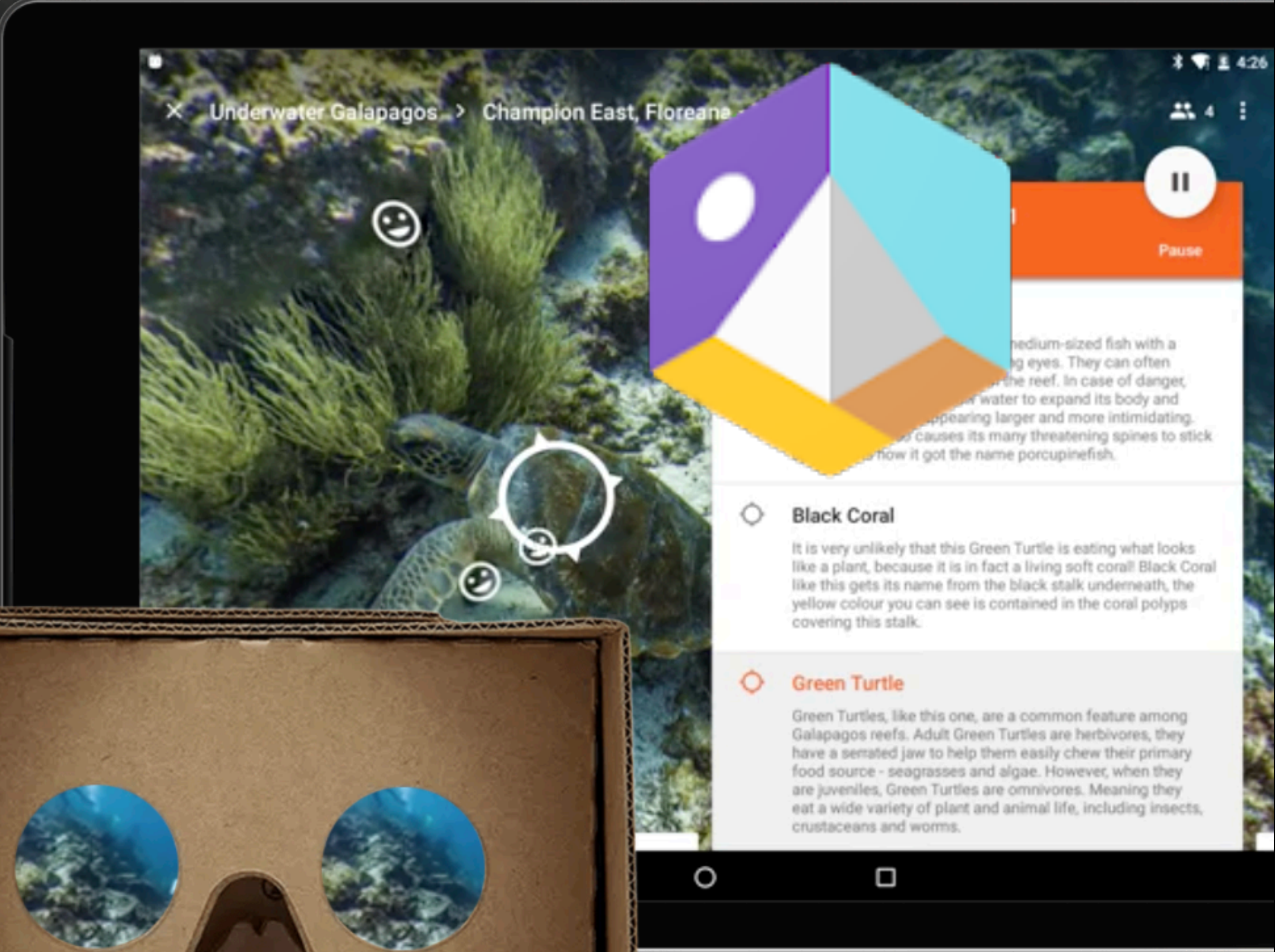
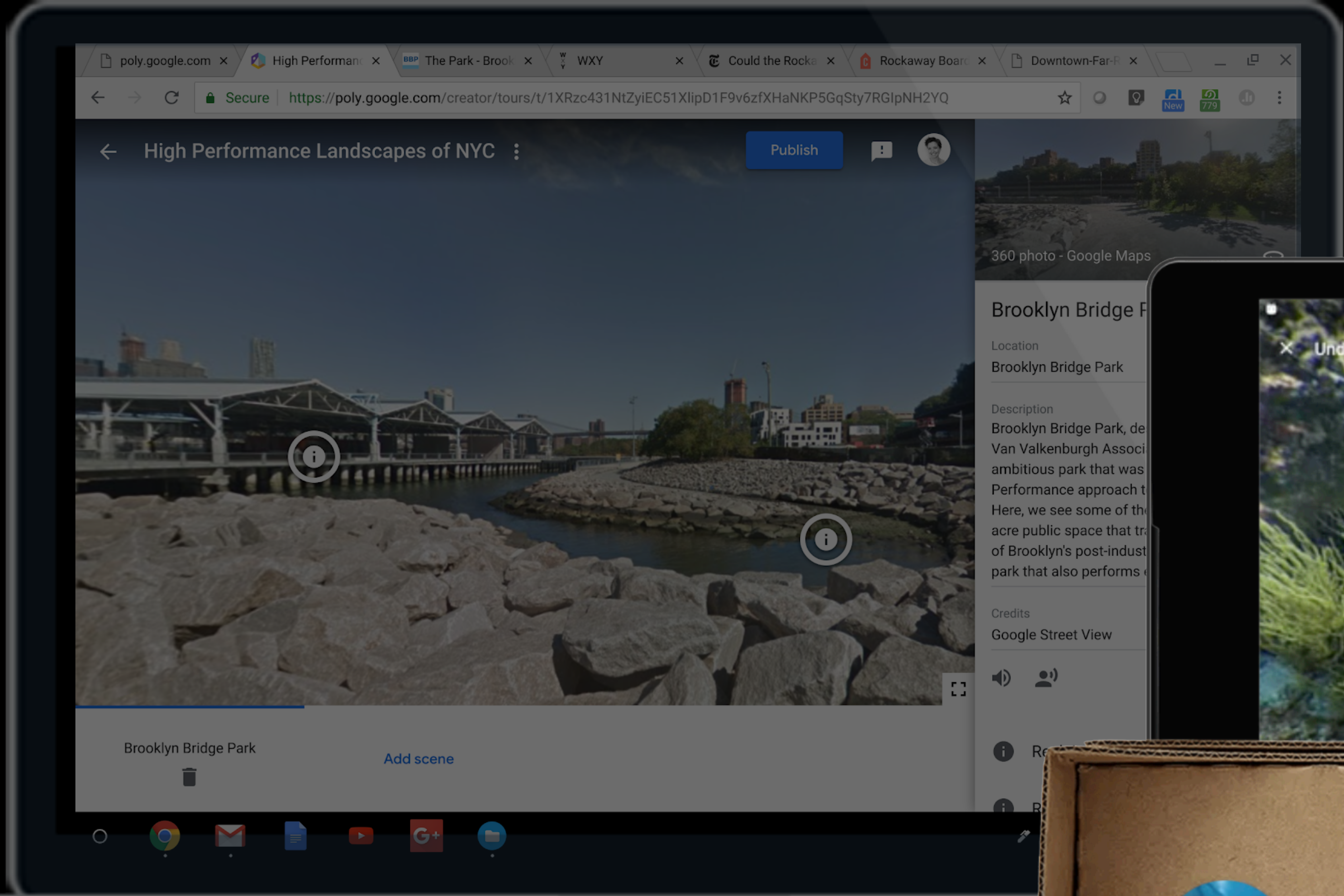




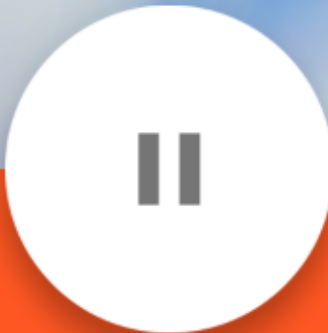
22 Samsung Gear VR



Started experimenting



Google Expeditions



A Hidden Wonder

▶ Now guiding

Pause

Beginner Question: Why is Angel Falls special?
(Answer: Angel Falls is the world's tallest waterfall.)

Intermediate Question: What is a tepui?
(Answer: A tepui is a tall, almost vertical plateau made of ancient exposed rock.)

Advanced Question: Why do you think the Venezuelan government made this area into a national park in 1962?
(Answer: Examples include: Students might point to the value of Angel Falls and other water resources, the forests, the tepuis, biodiversity, and tourism. Answers should include clear main idea statements and at least two supporting details.)



Table Mountains

Angel Falls pours off a flat-topped plateau—locally named Auyán-Tepuí. These massive exposed rocks are among the continent's oldest, dating to over 130 million years ago. They're so tall that they're often



Google Expeditions



Google Expeditions





**Although OBVIOUSLY
very interesting**



**Although OBVIOUSLY
very interesting**

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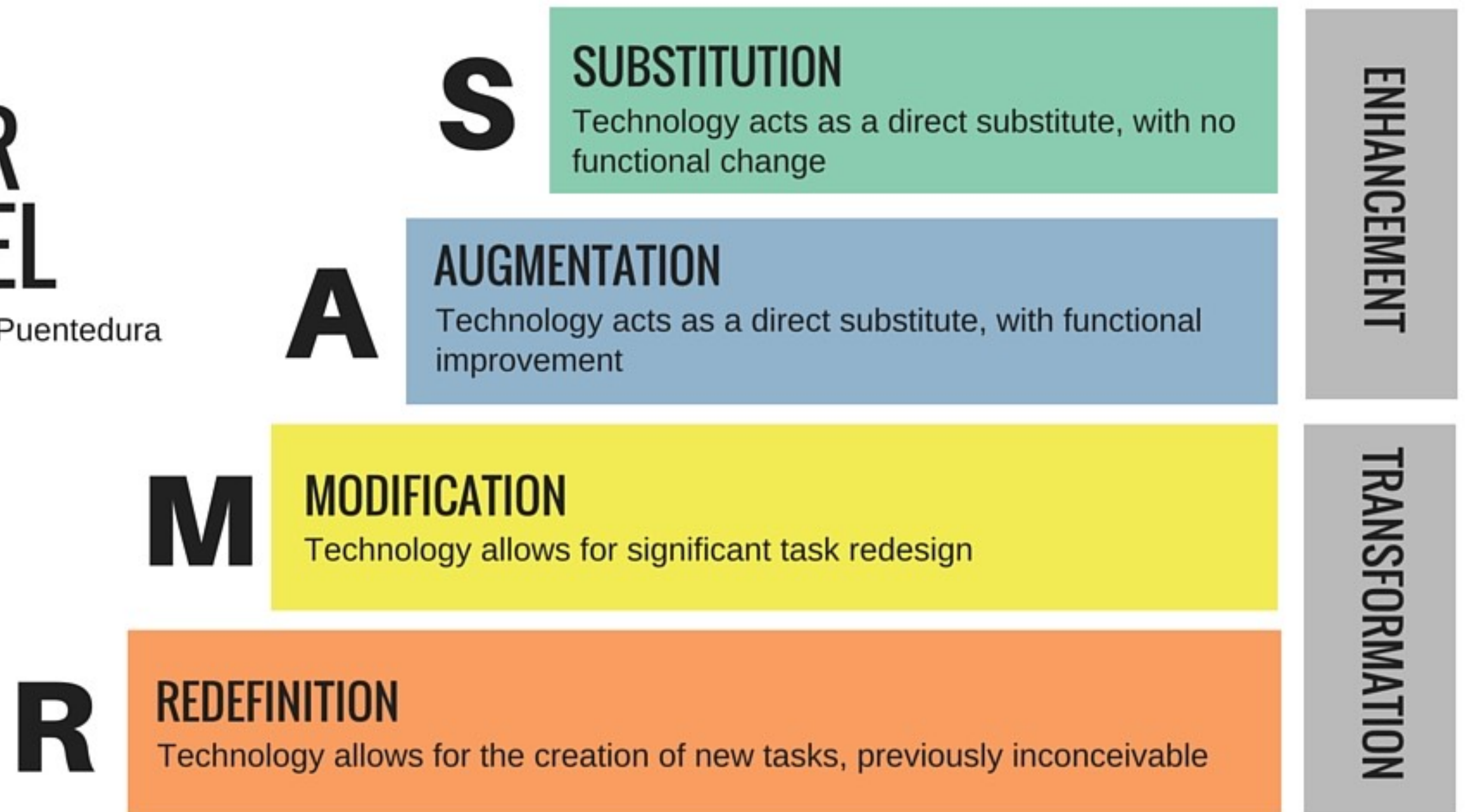


**It's still just
Consumption**

Our development

THE SAMR MODEL

Dr. Ruben R. Puentedura





Consume

2016



Create

2021



**Started creating a bit
in VR**

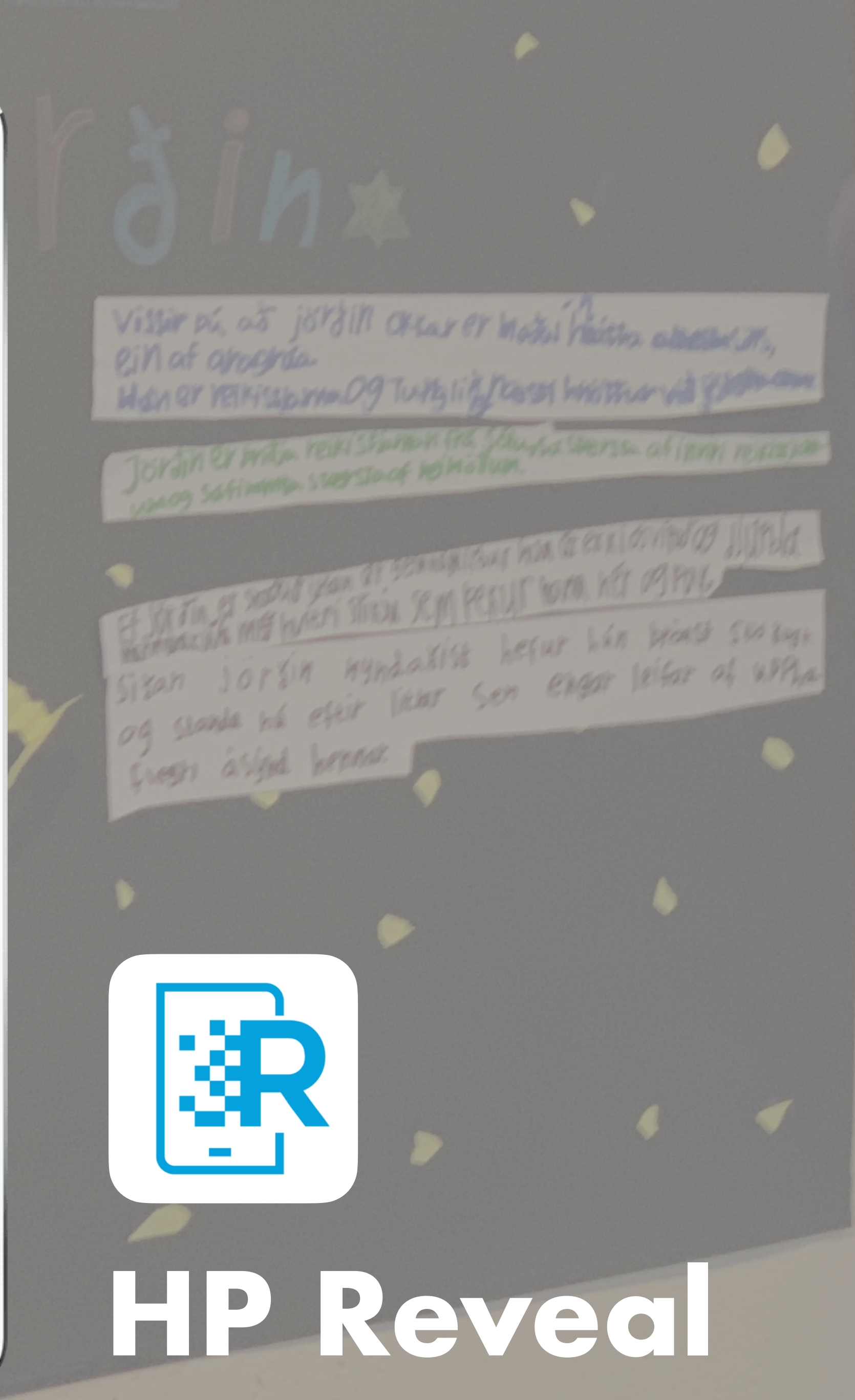
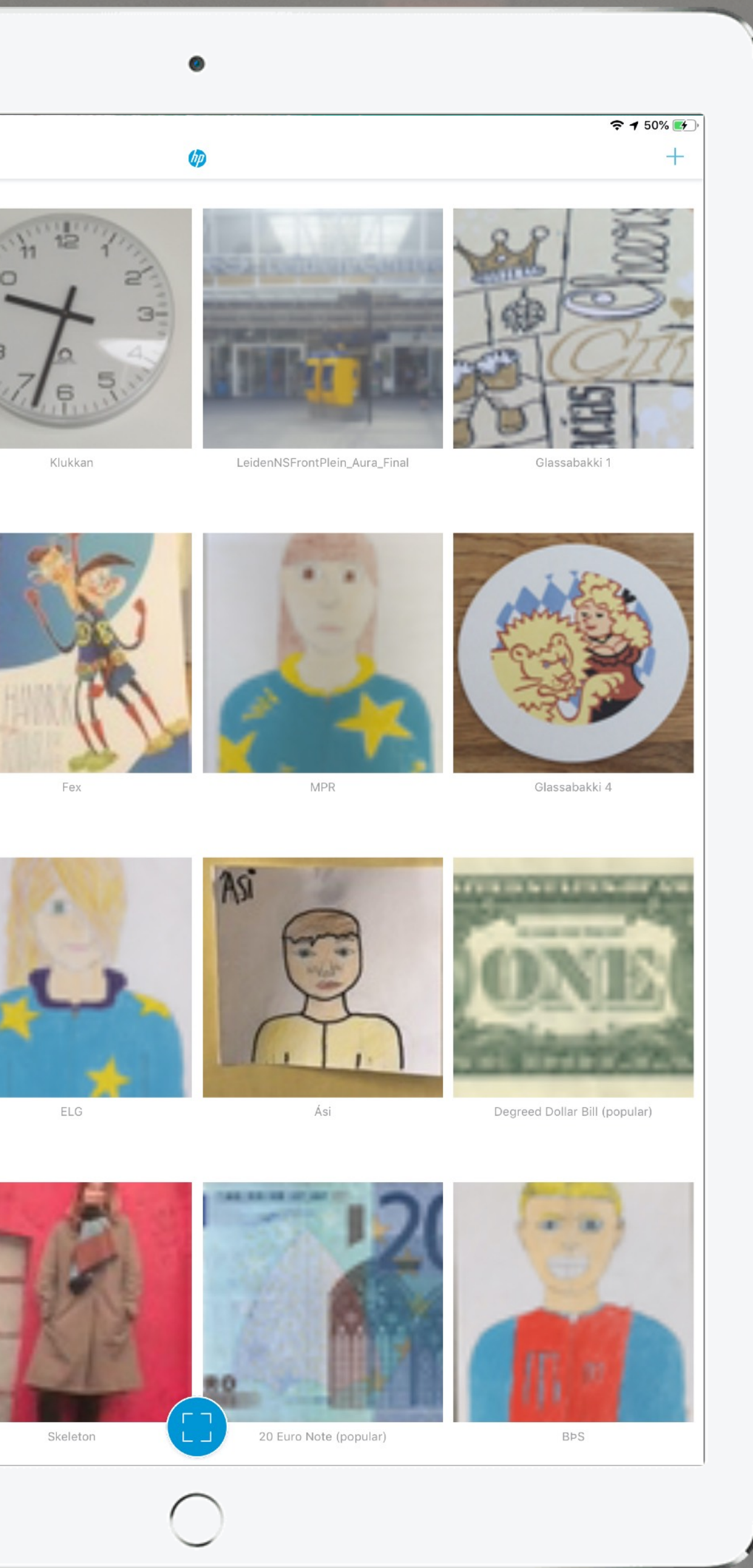
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Black beach - Skagafjörður, Iceland

Then we started experimenting
with AR

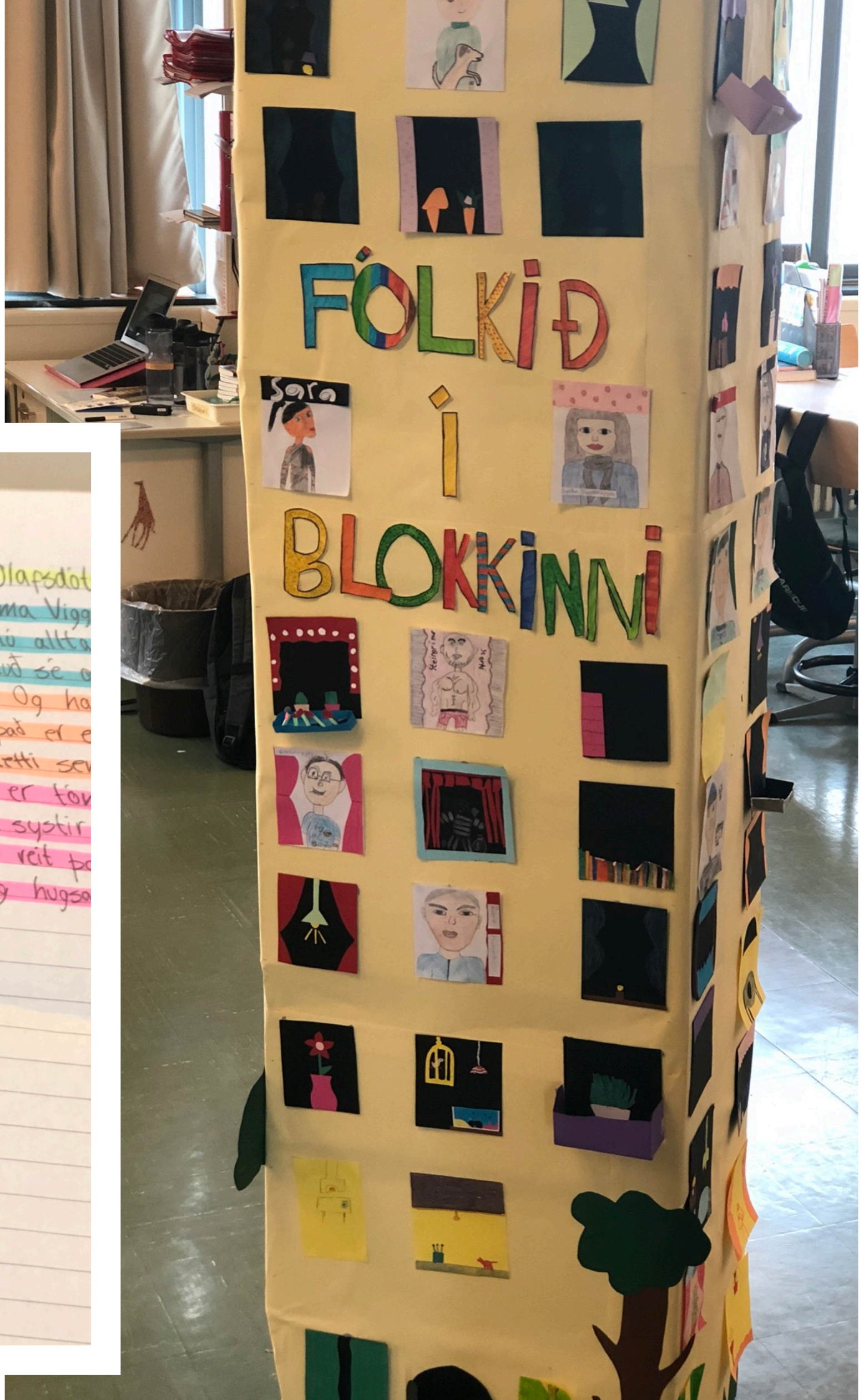
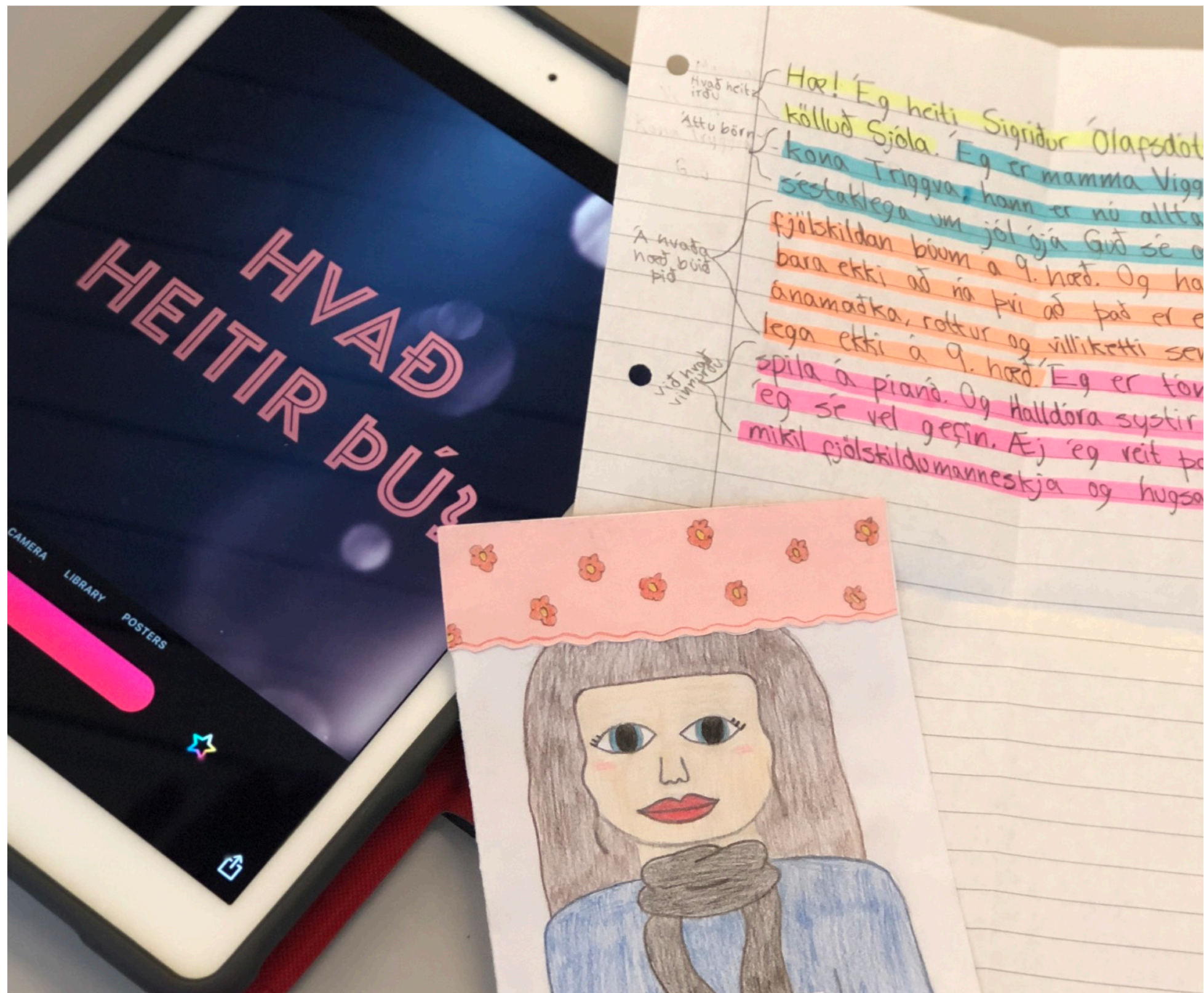
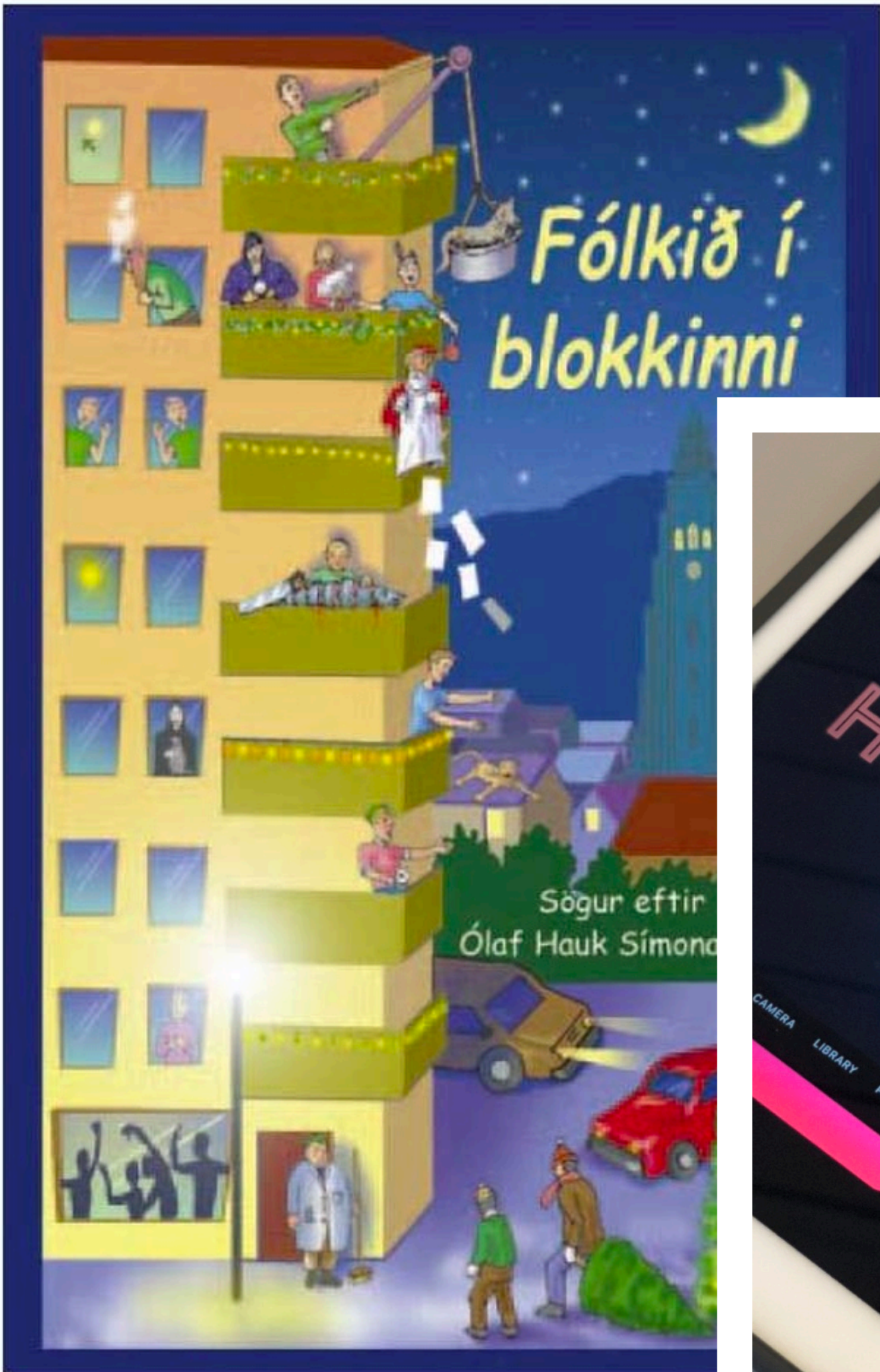




HP Reveal



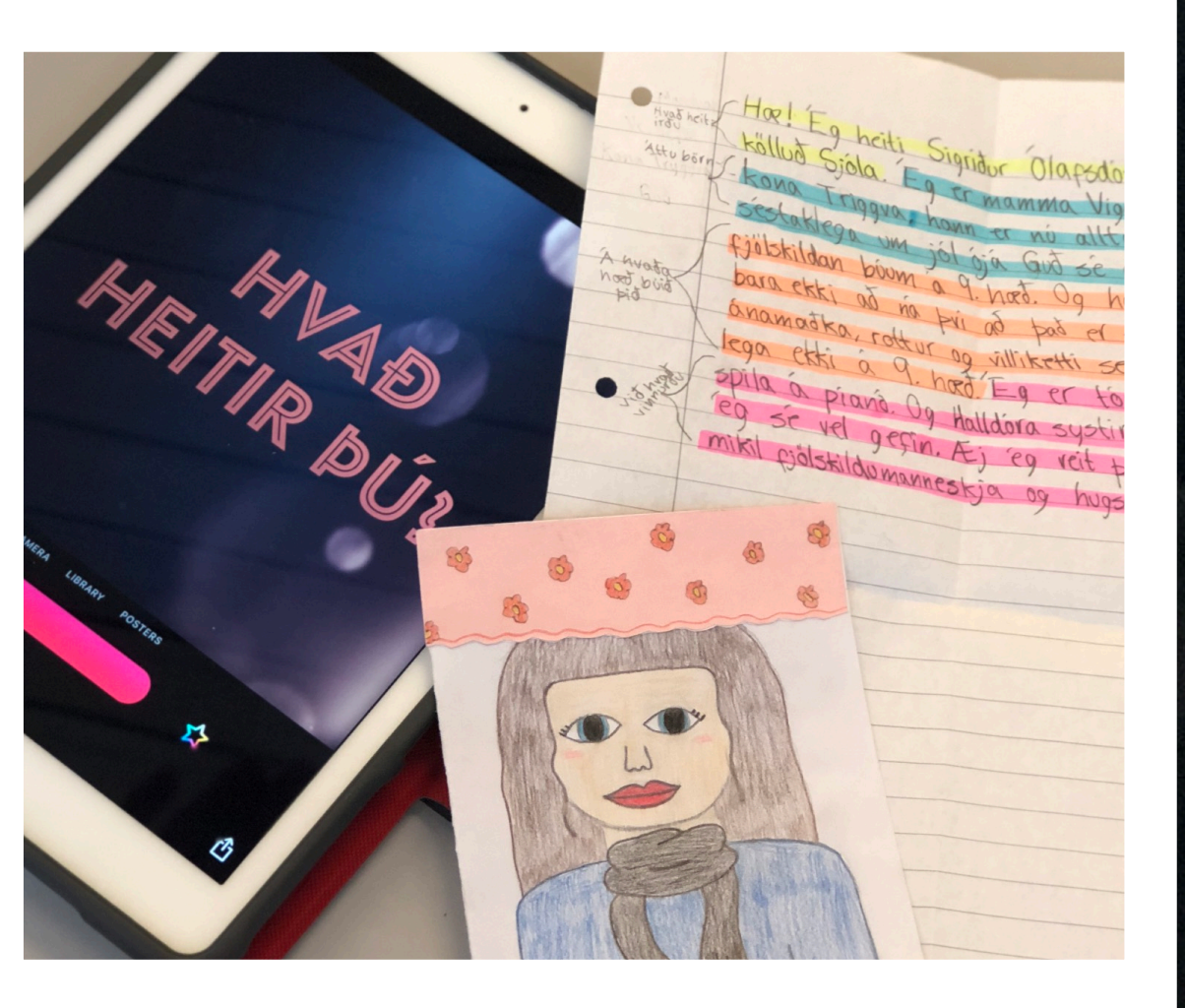
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FÓLKIÐ

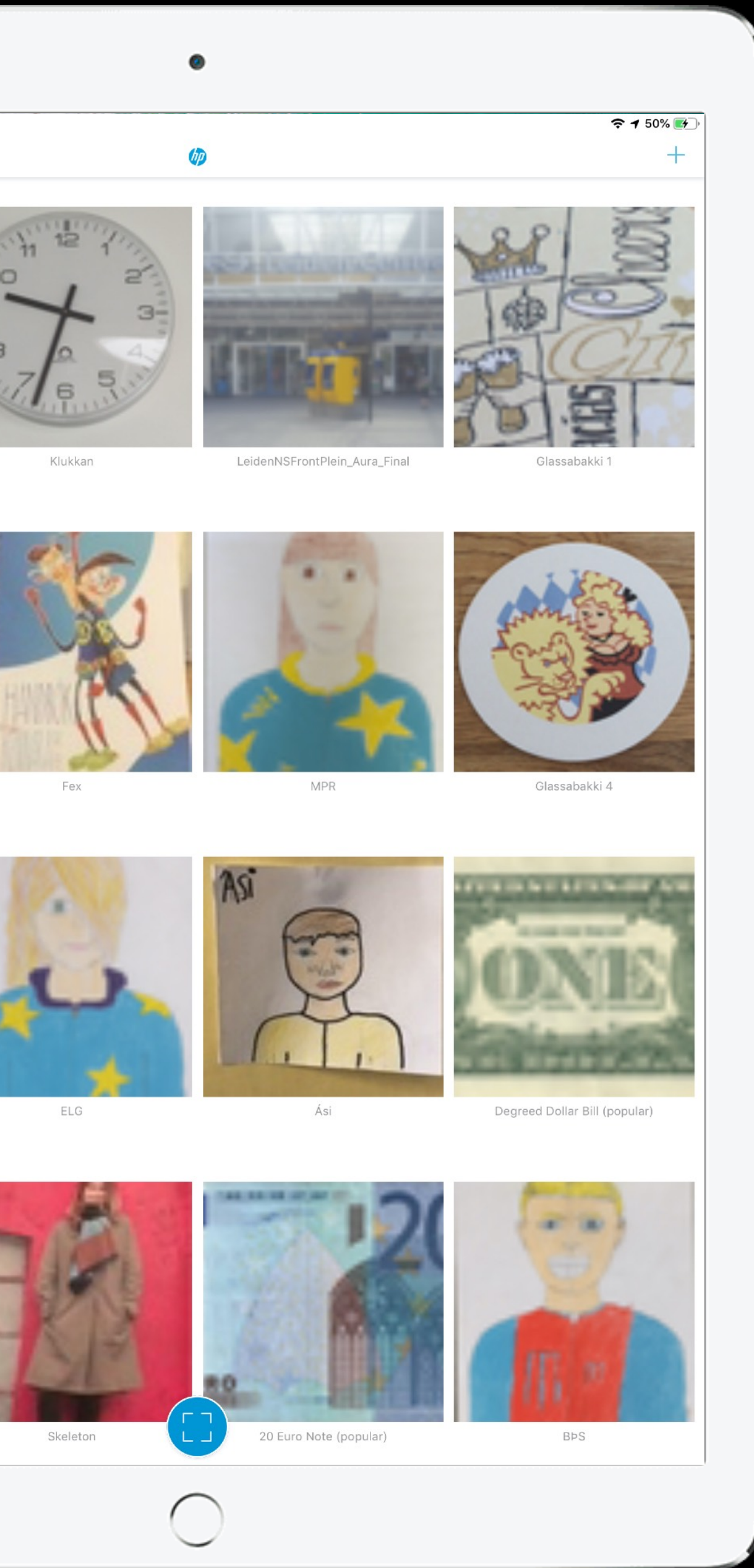
LOKKINI



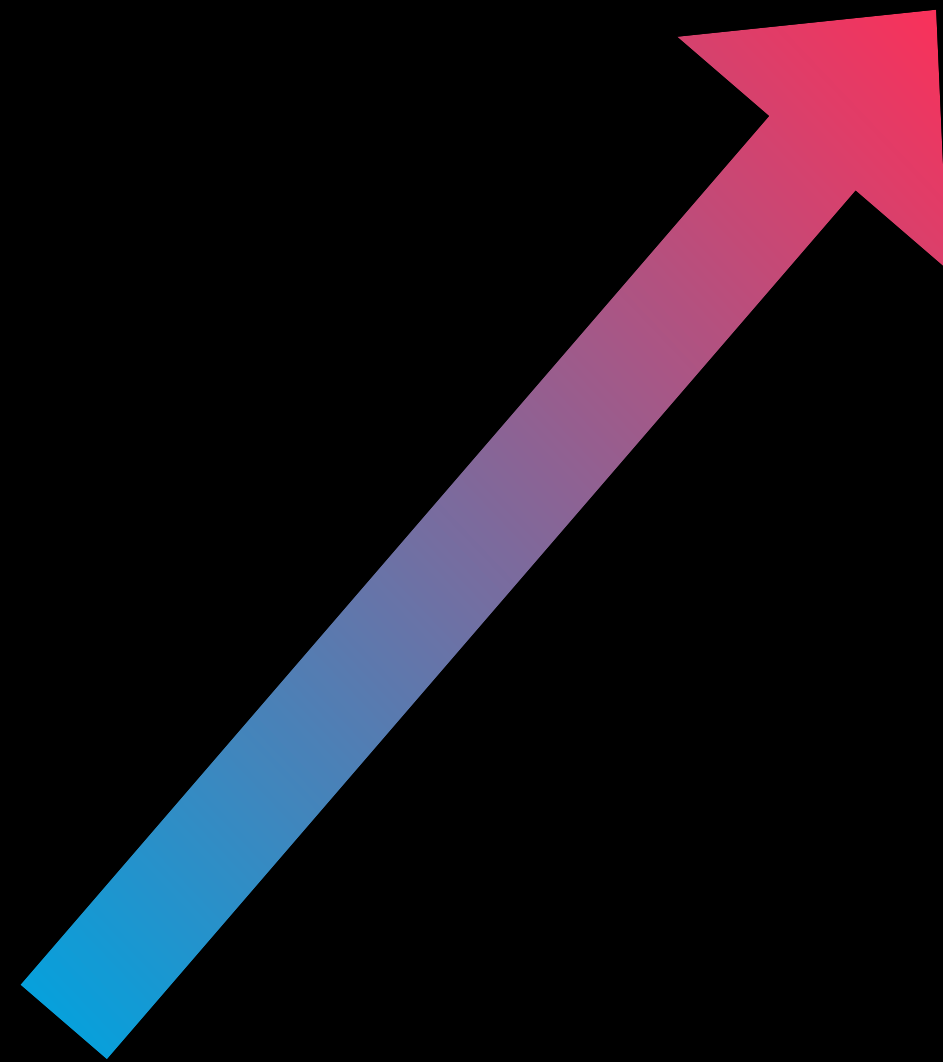


Every window is interactive





Flipgrid **AR**



HP Reveal





Flipgrid



What is

FLIPGRID.

?

FLIPGRID.

**Students
can
submit
videos
easily**




Flipgrid Dashboard Grids Shorts MixTapes **Disco Library** #GridPals Ann Kozma


Disco Library

Share and use [Topic templates](#) across all audiences and subjects. Every Topic you add ignites engagement in classrooms around the world. You've added **16 Topics** that have been used **334 times** and ignited **162.7 hours of engagement!**


#FlipgridWeekly30 [View all](#)




Jane Goodall TED Talk
Skype Classroom



Earth Day Challenge
Jodie Deinhammer



Try something new in your life for 30 days
Karalee Nakatsuka



Fortnite: Stealing Dances?
Jordan Blackburn

Let's Talk Math Hr 5

The Marvelous MatheMagic of Visual Integers

Nov 10, 2019

View Topic

My summer BOOKTALKS

My summer reading list:
The Lightning Thief
In the Year of the Boar and Jackie Robinson
Artemis Fowl

27 Awesome Responses 59 replies 2,566 views 129.7 hours engagement

Super Creative! Totally Awesome

Fantastic, Karly!

Number Game

So much fun!

My Booktalk

Brilliant Response




3 4
8 9

What visual is most helpful to you when thinking about operations with integers?

Create and record a visual using the camera or screen recording app. Share how you represent positive values, negative values, and zero. How can your visuals be used to solve (simplify) a problem?

Tip: Use or class resources below to help with you.

- Integers Game
- Our MathTalk Minutes
- Our MatheMagic Community

STEM Career Goals



A group of children in a classroom are engaged in a learning activity. In the foreground, a boy wearing a blue long-sleeved shirt and large black VR headphones is holding a tablet. The tablet screen displays a virtual environment with a pink and orange background and a small map. To his right, another child is also using a tablet, which shows a video of a person in a blue dress. In the background, several other children are visible, some also wearing VR headsets. The wall behind them is covered with a map of Iceland, and several QR codes are pinned to it with colorful string. The overall atmosphere is one of active learning and technology use.

The project

Learning about different places in Iceland

Research - Write - Record - Learning experience

Before



After



Responses (25)

FLIPGRID.

[Export Data](#)

[Print QR Codes](#)

[Actions](#) ▾

Name

Date

Comments

Feedback

<input type="checkbox"/>		 [Redacted Name] 4 views	Feb 26, 2021	-	-	Active ▾	Share
<input type="checkbox"/>		 [Redacted Name] 9 views	Feb 26, 2021	-	-	Active ▾	Share
<input type="checkbox"/>		 [Redacted Name] 21 views	Feb 26, 2021	-	-	Active ▾	Share
<input type="checkbox"/>		 [Redacted Name] 10 views	Feb 26, 2021	-	-	Active ▾	Share
<input type="checkbox"/>		 [Redacted Name] 11 views	Feb 26, 2021	-	-	Active ▾	Share
<input type="checkbox"/>		 [Redacted Name] 19 views	Feb 26, 2021	-	-	Active ▾	Share

Ísland



Print

7 pages

Destination

Save as PDF

Pages

All

Layout

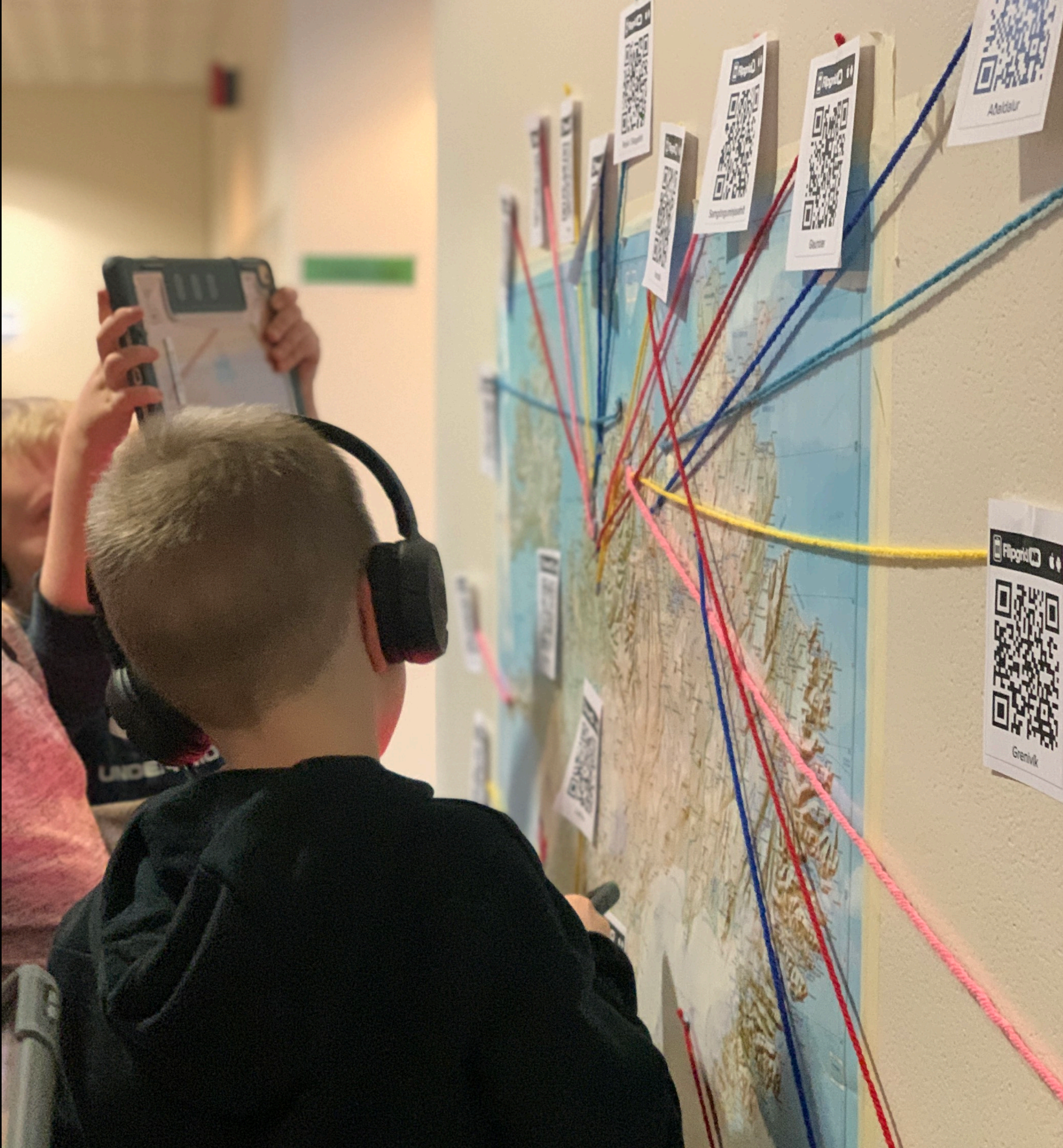
Portrait

More settings

FLIPGRID.

Cancel

Save



**Map of Iceland
QR codes attached to
that location in Iceland**





How it works



Looking at Iceland in VR

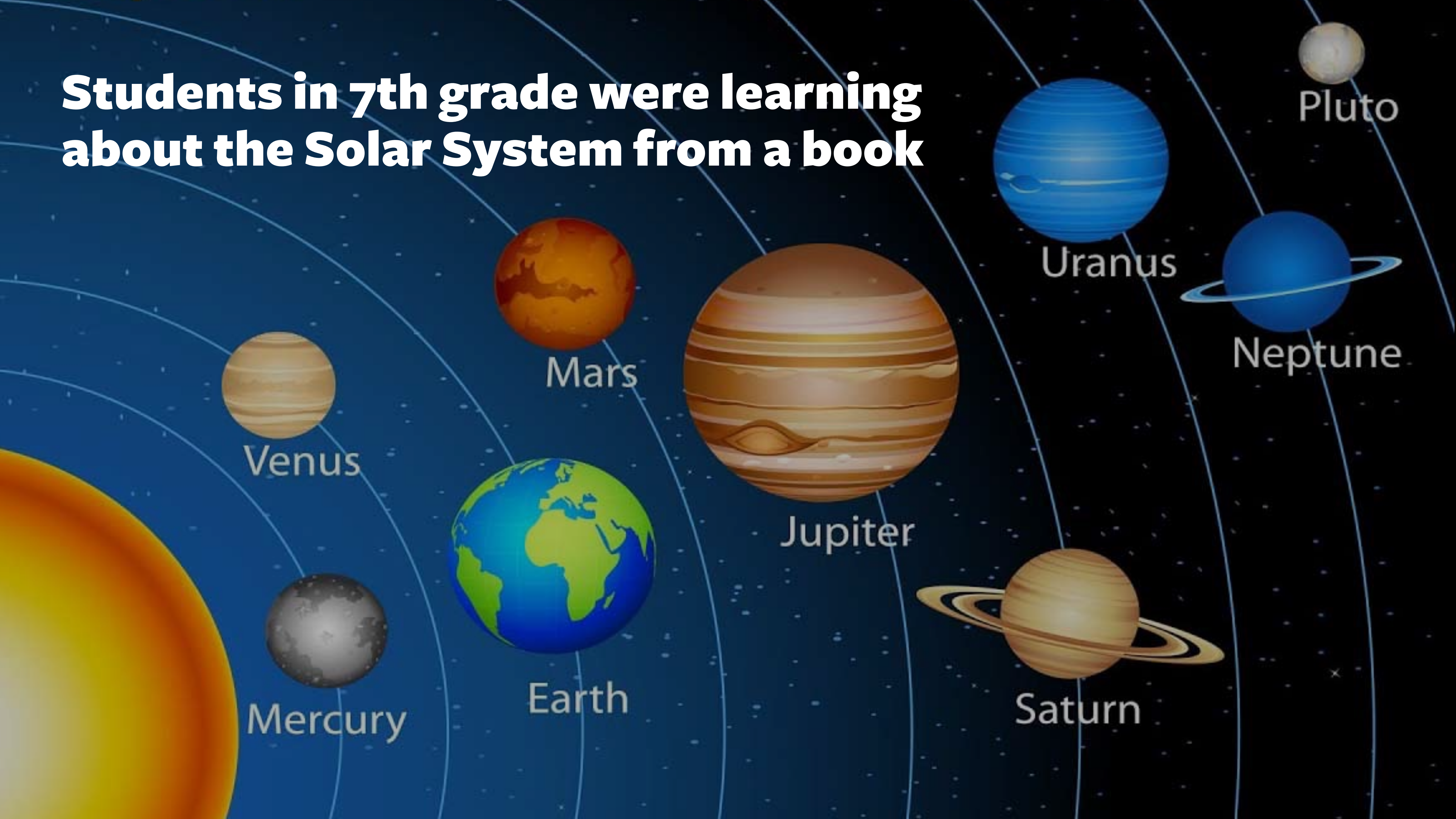
**So that's a bit of
our AR work**

**Let's see some
of the VR work**

Next step Creating in VR

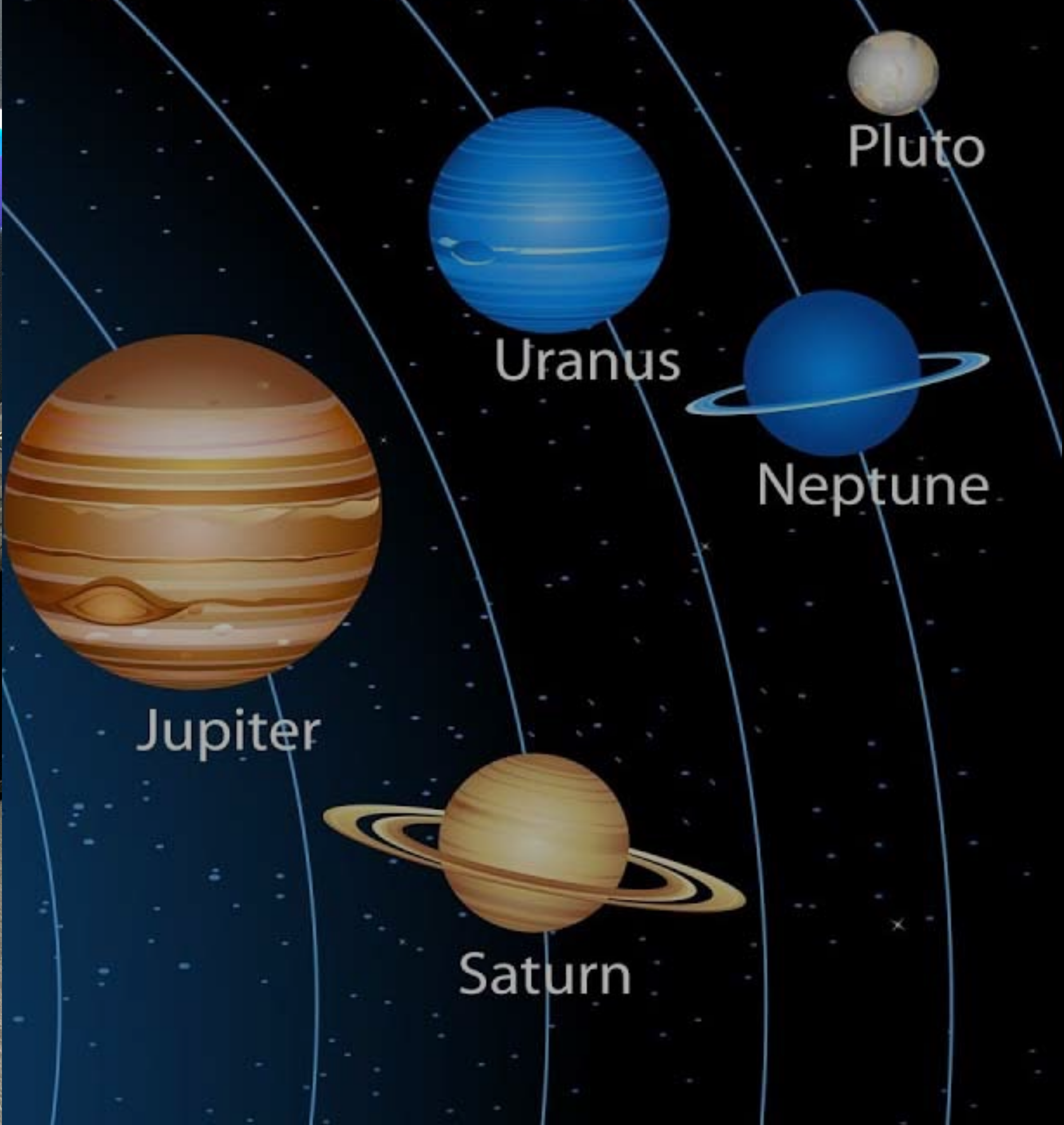


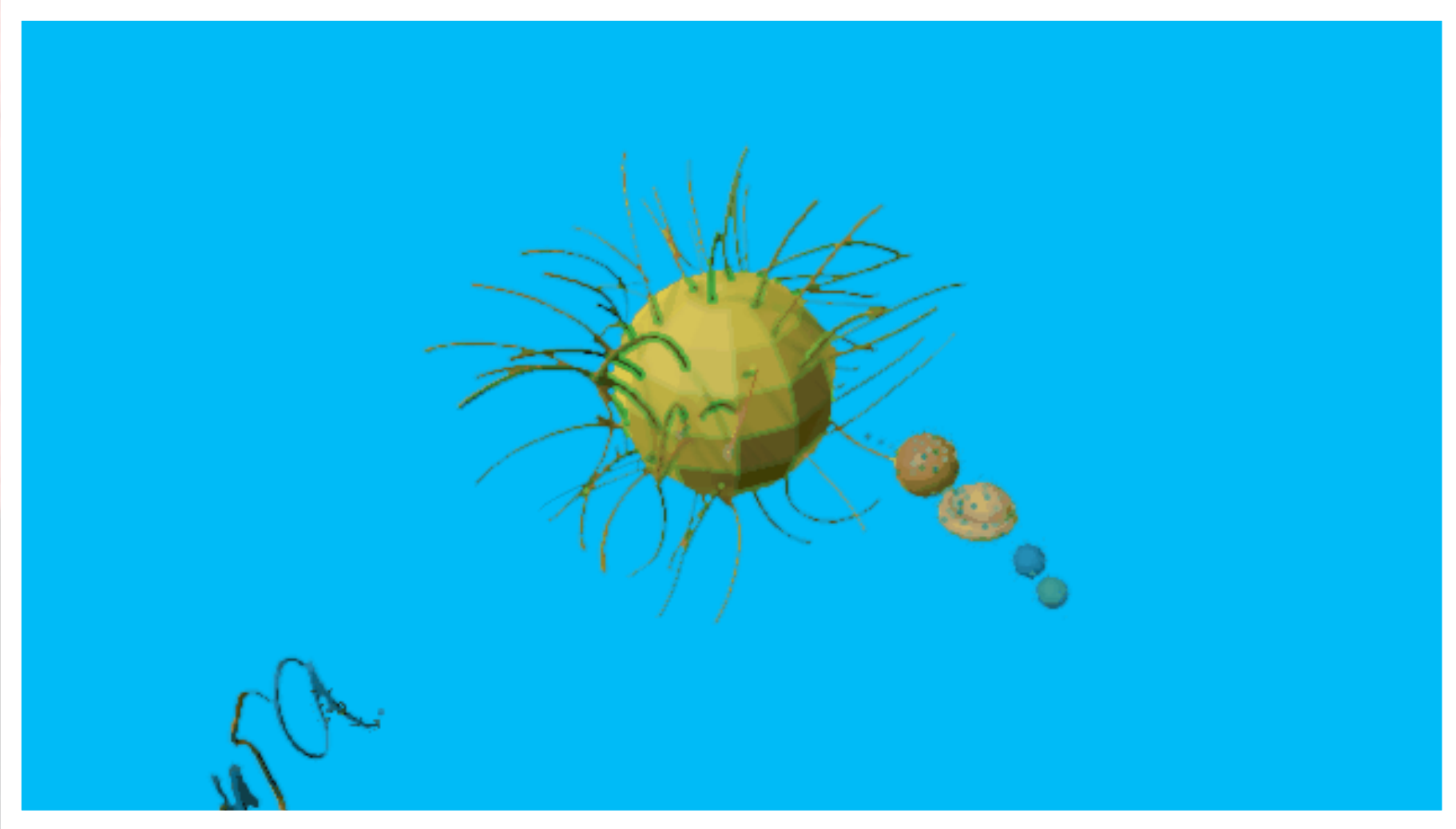
Students in 7th grade were learning about the Solar System from a book



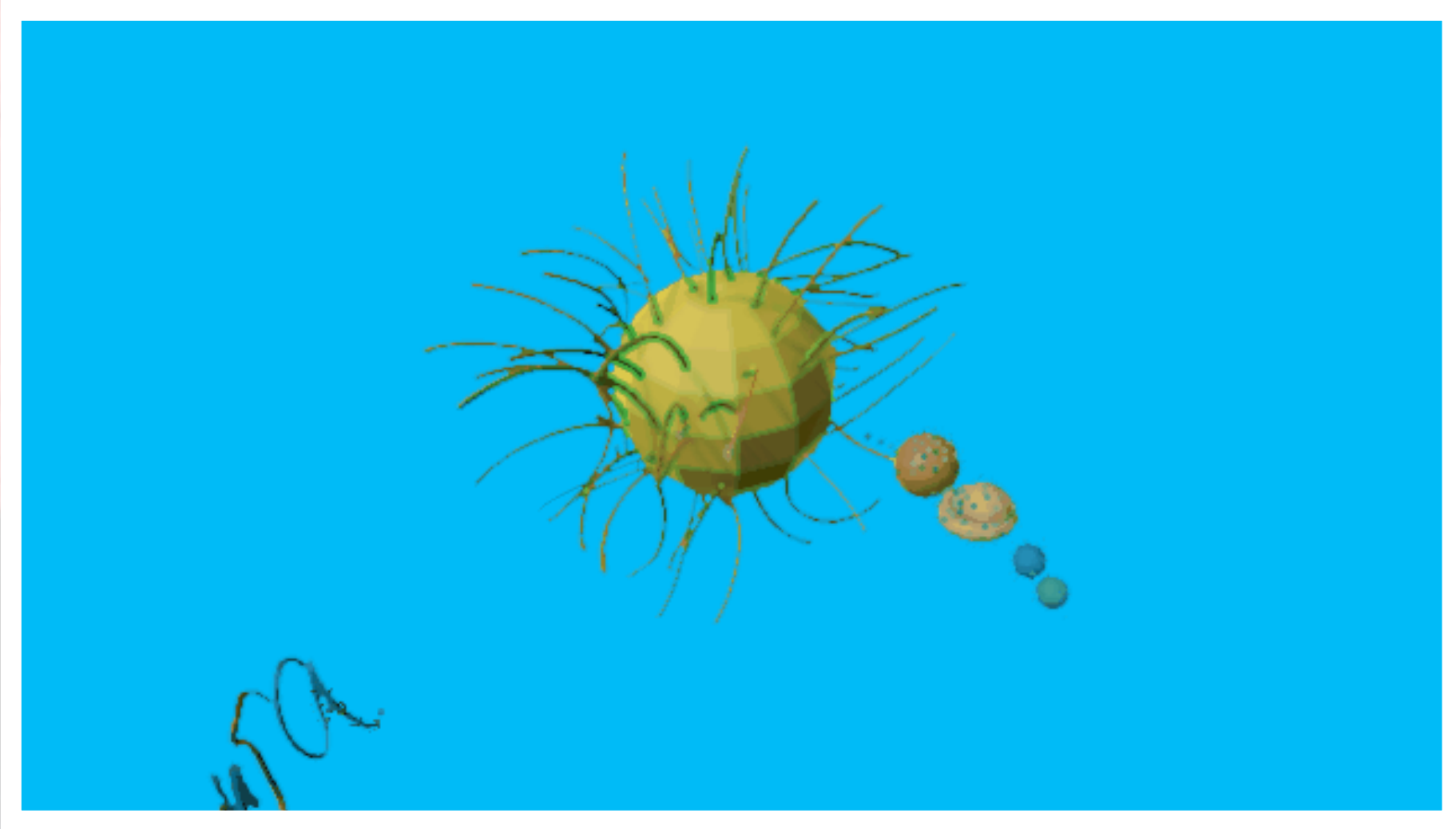
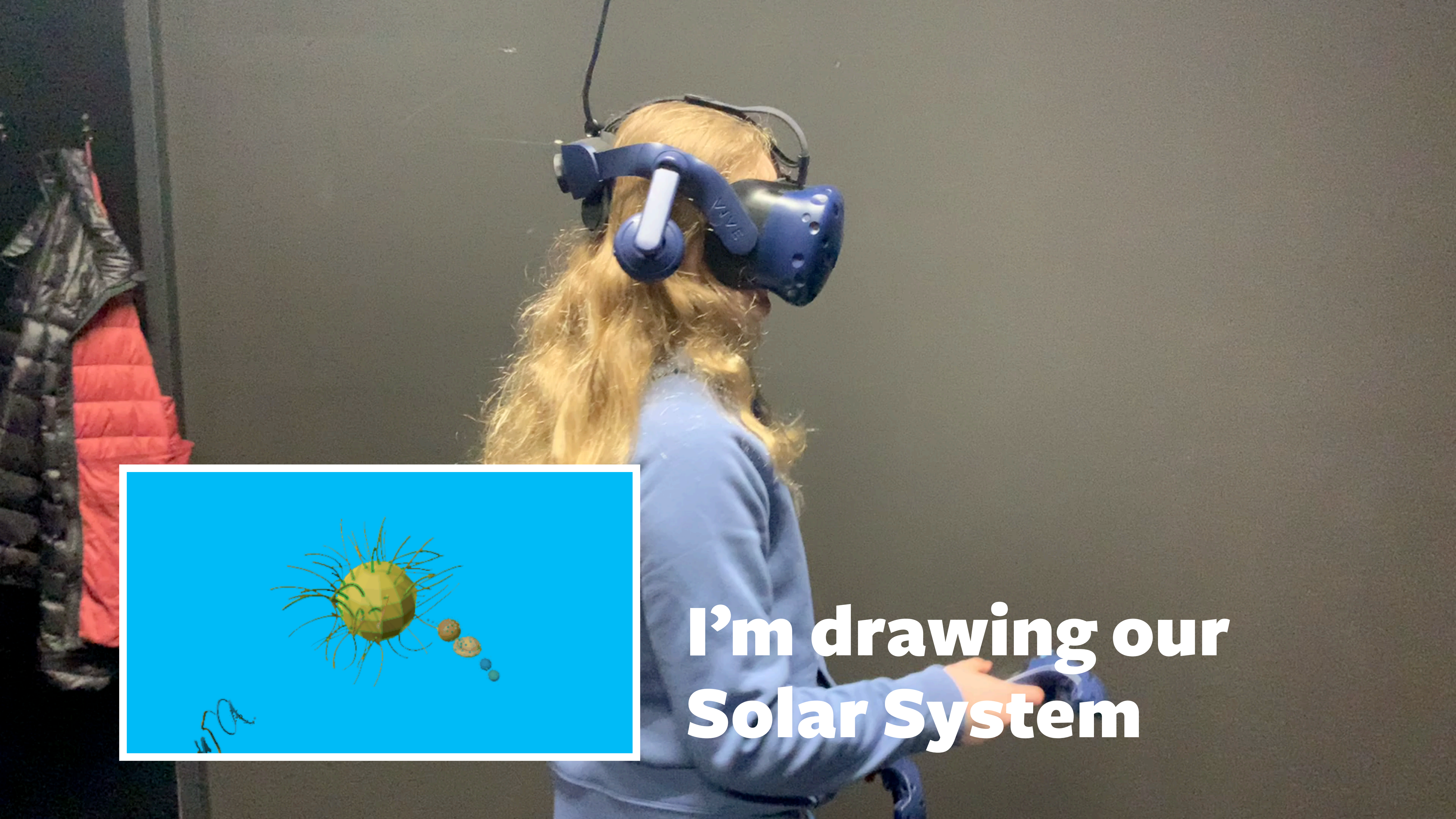
So we decided
instead of having them consume,
how about they just
create the solar system
in VR using Google Blocks



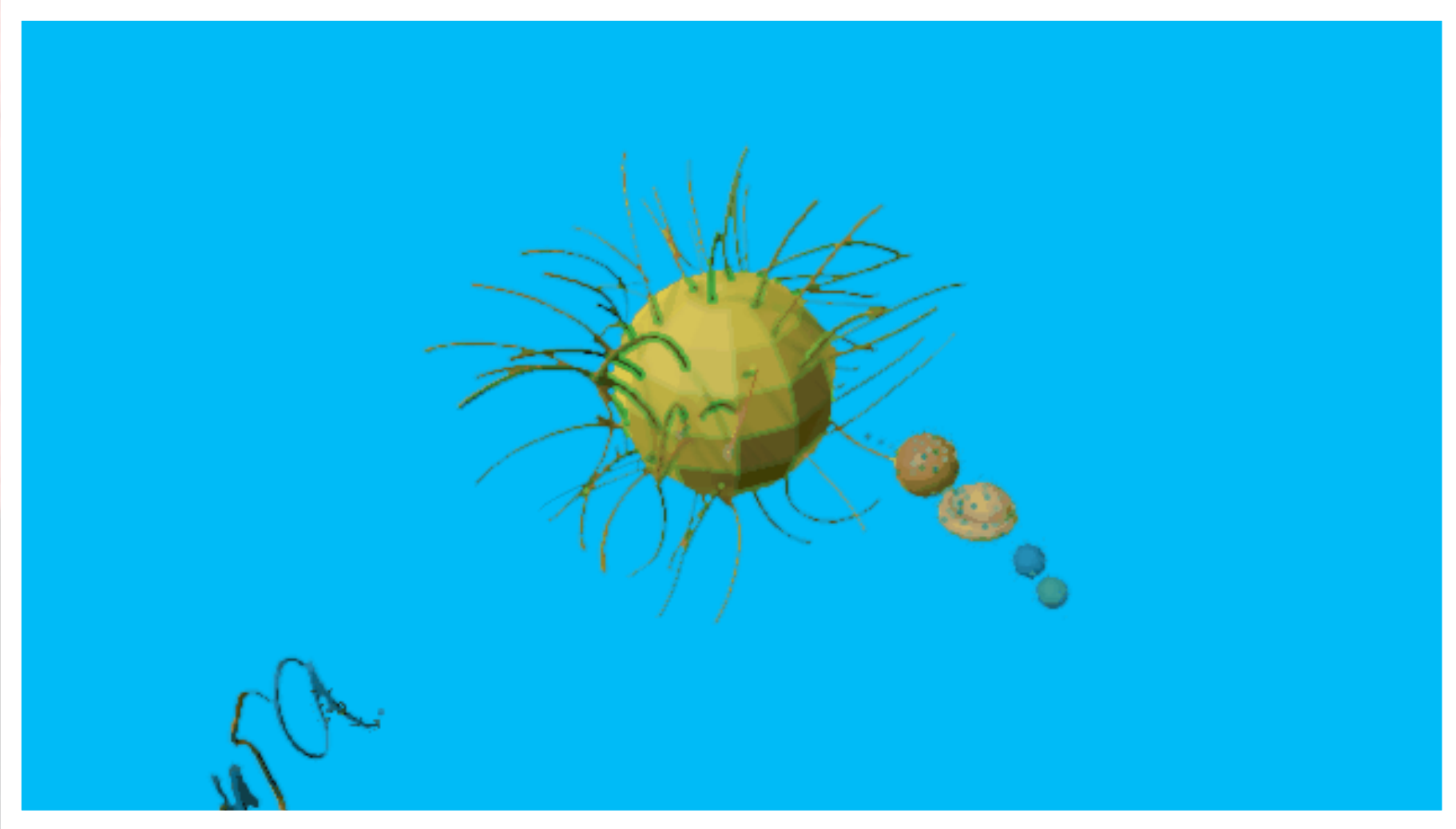




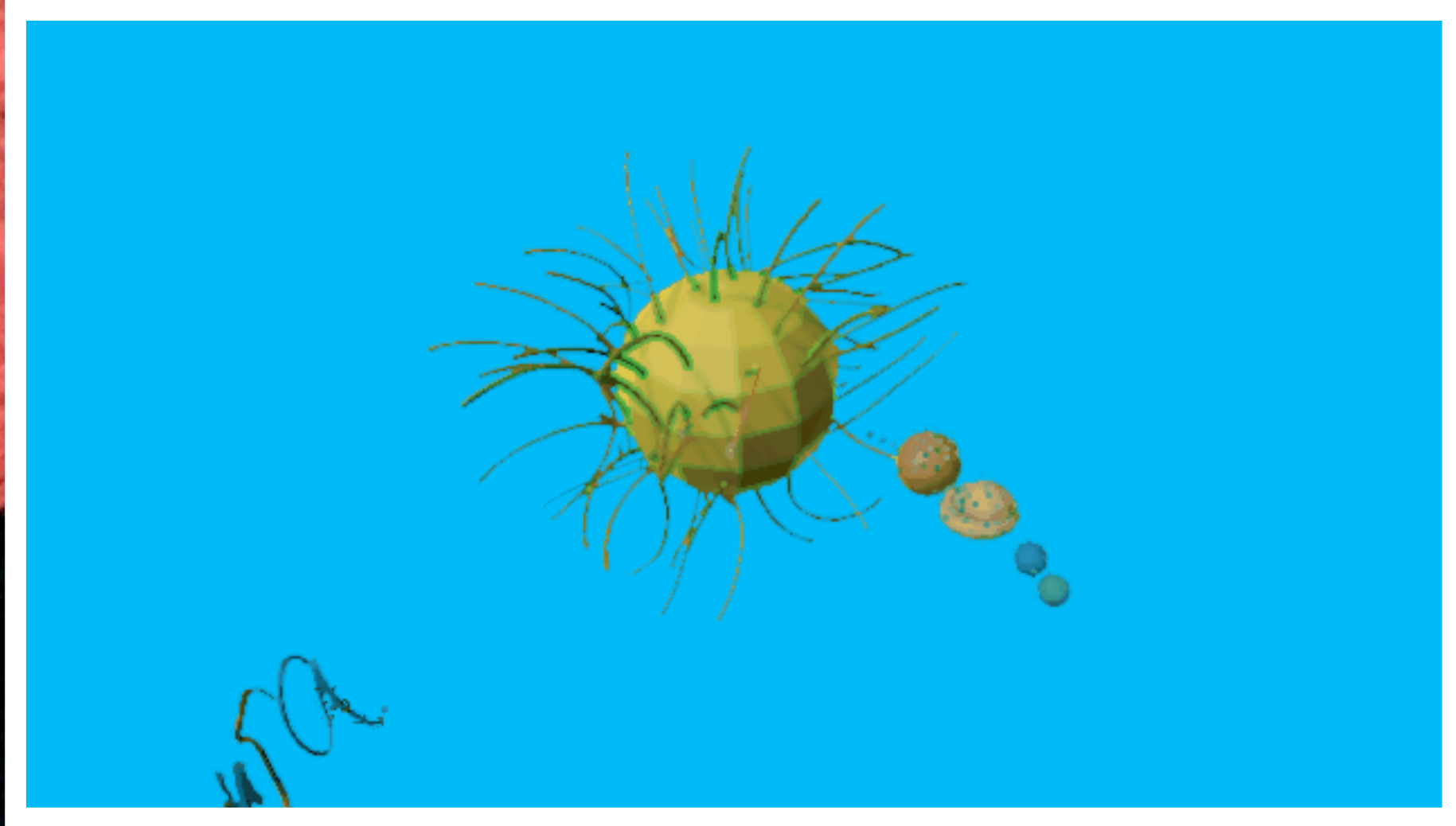
**What are you
up to?**




**I'm drawing our
Solar System**



These are all the planets and all of their moons!



**....and this took
you what? Like 15
minutes?**

A young girl with dark hair in a ponytail is wearing a blue VR headset and holding a blue VR controller. She is looking towards a monitor that displays a colorful interface with letters 'V', 'J', and 'M' and various colored circles. The background is dark with some cables hanging down.

**Students learned more
and showed more of their learning
than on any test
we could have had them take**



Next up is creating
a volcano
-and-
maybe printing it
in out 3D printer



Consume

2016

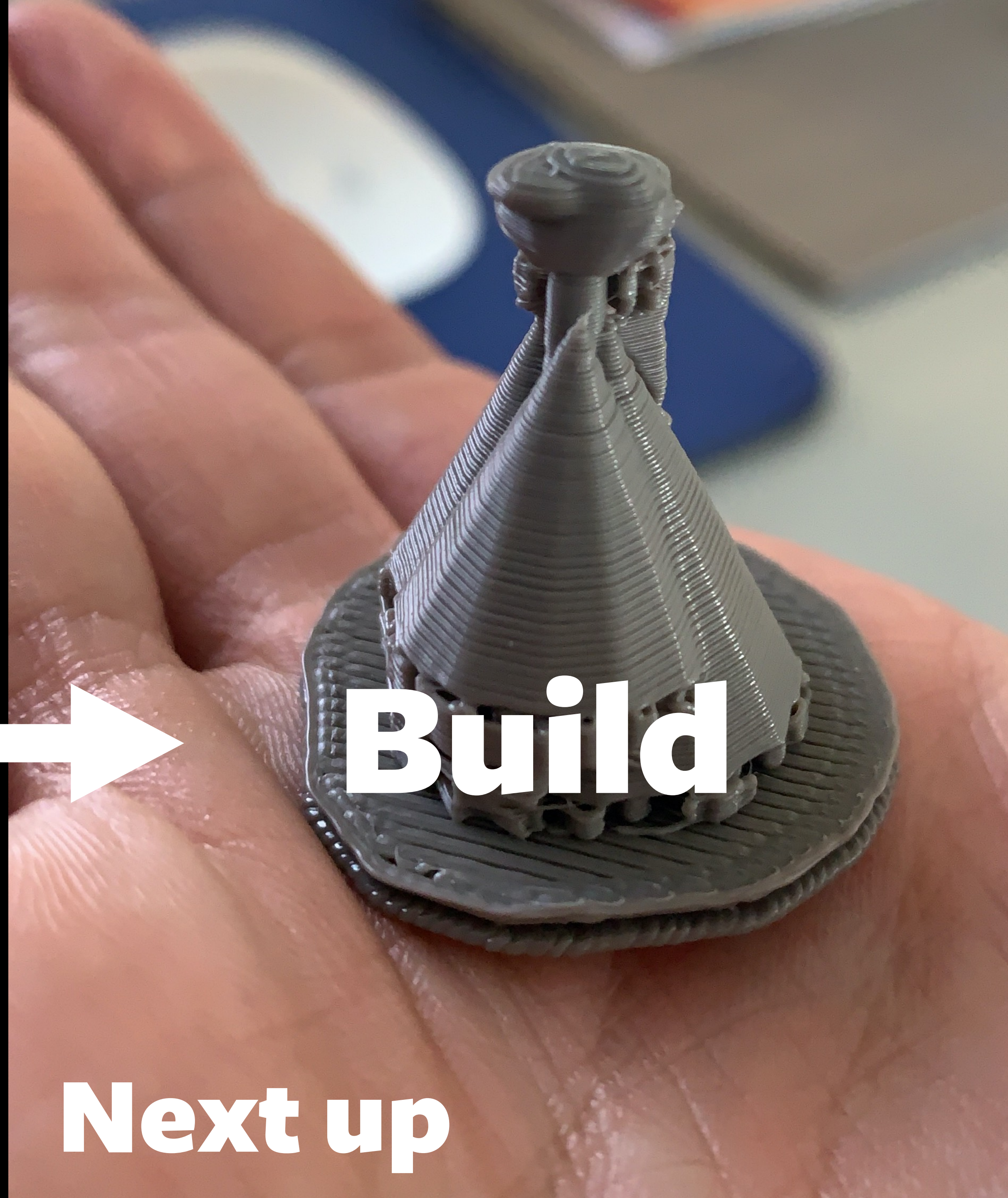


Create

2021



Create



Build

2021

Next up



Thank you

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CIO Skagafjörður School District