

The Glass-blowing VR Experience

Prism Beam x PGC

An educational and creative experience that highlights the beauty of glassmaking and evokes youth's appreciation of glassmakers



Prism Beam



Sol Choi
Sound Designer &
Researcher



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Co-producer & UI/UX
Designer



Jialu Sun
Programmer



Shirley Saldamarco
instructor



Aldora Wang
Co-producer &
Experience Designer



Kristin Wu
Programmer



Laura Wu
Lead Artist

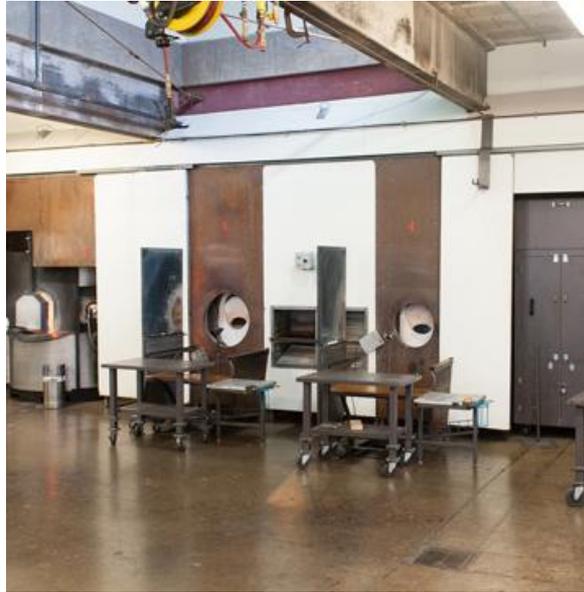


Scott Stevens
instructor

Our Client - Pittsburgh Glass Center



PGC Building



Hot Shop



Jason Forck

Director of Creative Projects



Valerie Bundy

Program Director

Our goal



Glassmaking experience
in hot shop



Meta Quest Pro



An educational and creative
glassmaking VR experience

Client Needs

Target audience



middle/high school
students

Scenario



Bring the VR experience
to classroom

Client Needs



Showcase the **beauty** of
glassmaking



Evokes **appreciation** of
glassmakers

Research - Visit to PGC



Research - Interview

Key **Actions**:



Gather



Color



Blow

Key **Point**:

- **Beauty** in the making process > Safety training and protocols (in VR)

Key **Qualities**:

- Beauty of **Making**
- Beauty of **Fragility**
- Beauty of **Flexibility**

Research - How to make an ornament



Gather molten glass



Dip color frit



Reheat



Shape



Blow



Add handle

Experience Design - Two Scenes

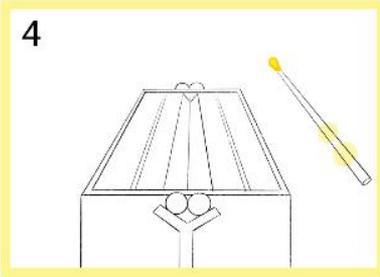
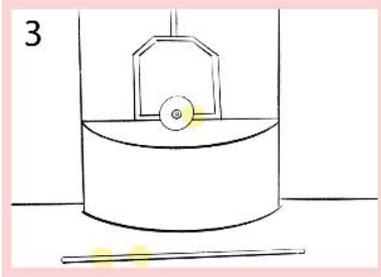
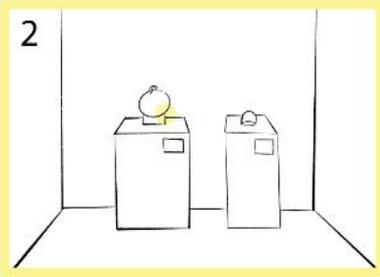


The Hot Shop



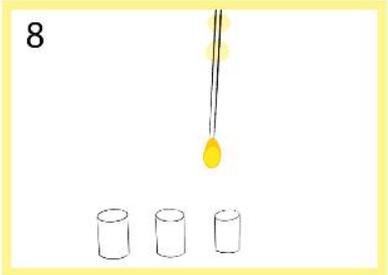
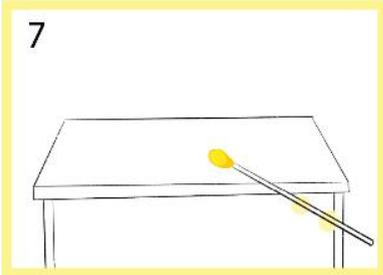
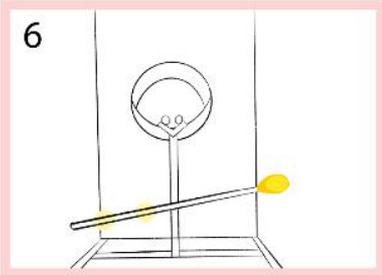
The Gallery at PGC

Experience Design - Storyboard



- Higher priority
- Lower priority

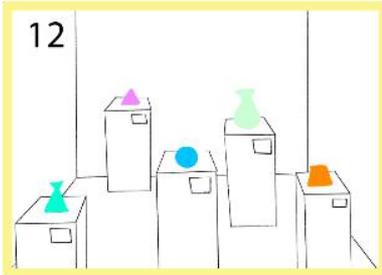
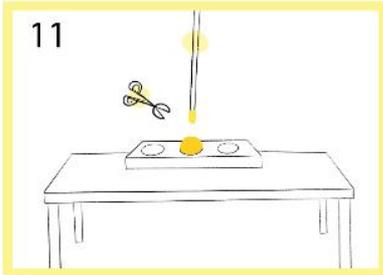
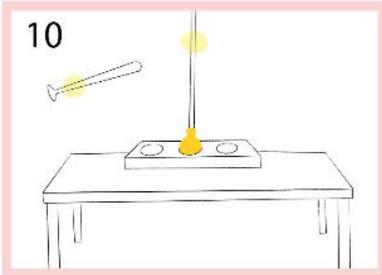
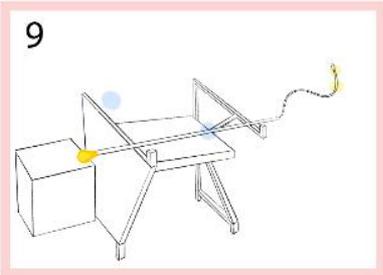
Experience Design - Storyboard



Higher priority

Lower priority

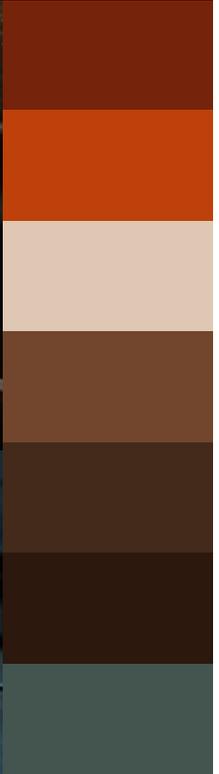
Experience Design - Storyboard



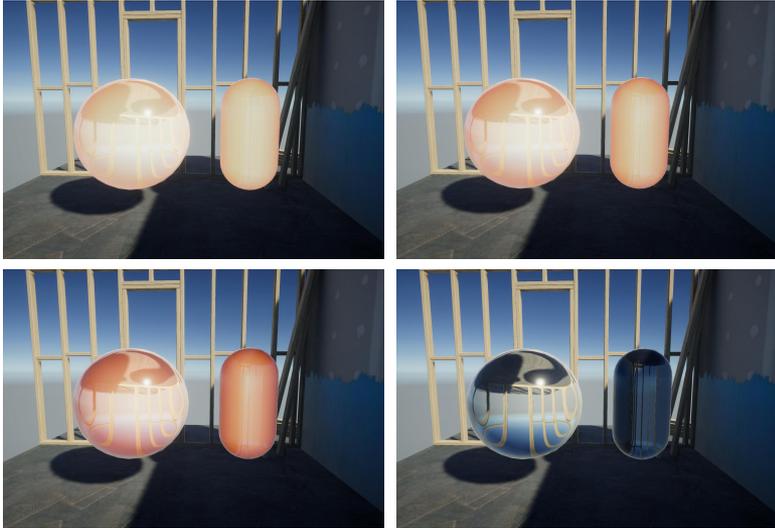
Higher priority

Lower priority

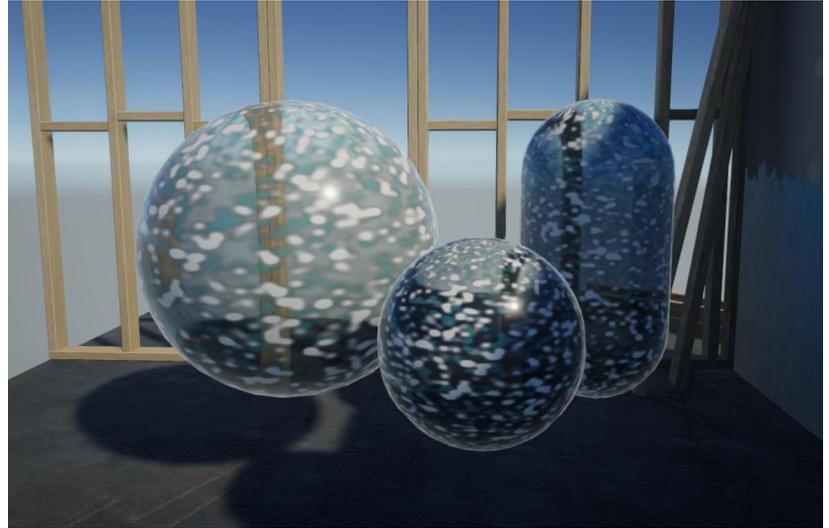
Art - Moodboard



Art - Material



Temperature Gradient

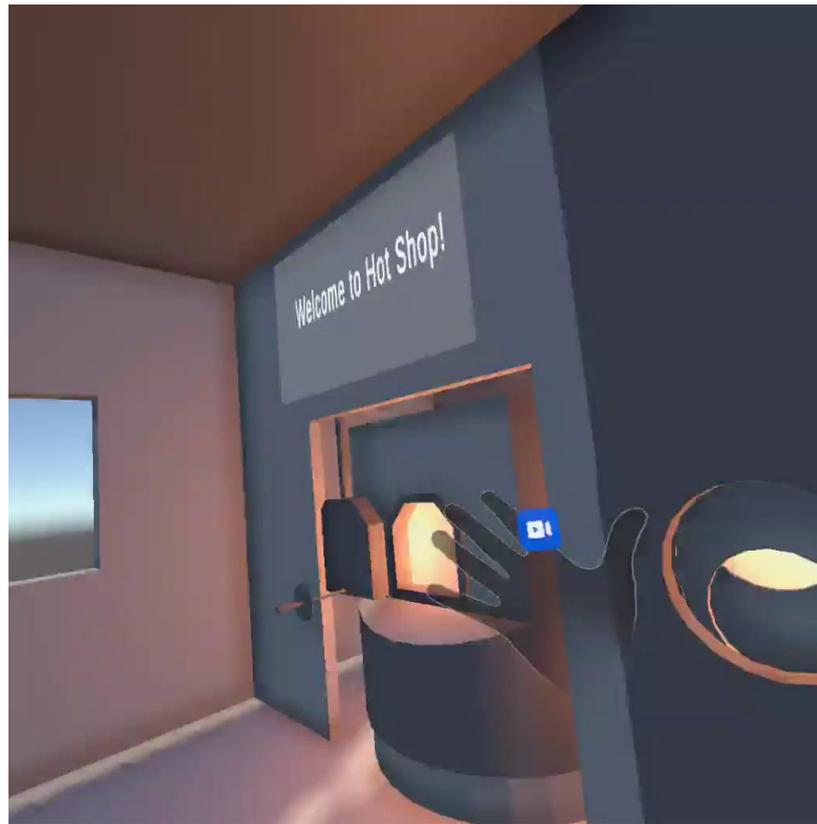


Collecting Color

Art - Environment



Demo



Tech - How to grab the Blowpipe?



Virtual pipe



pipe

Physical

Tech - How to grab the Blowpipe?

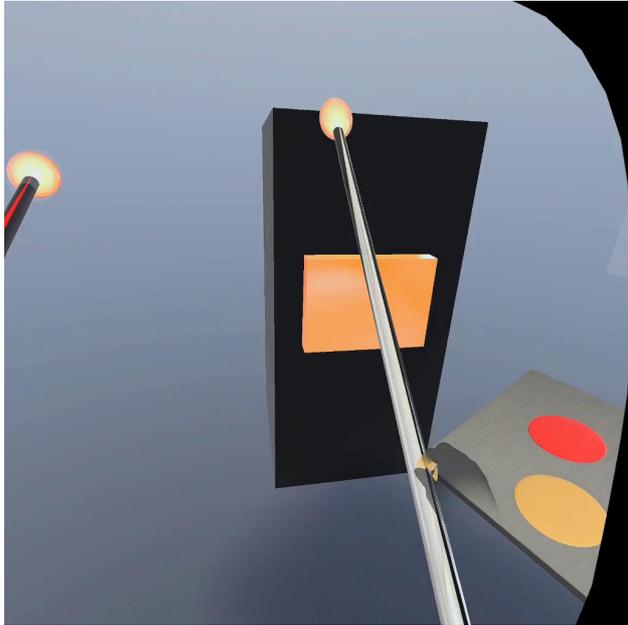


Grab with restrained gesture



Playtest with client

Tech - How to grab the Blowpipe?



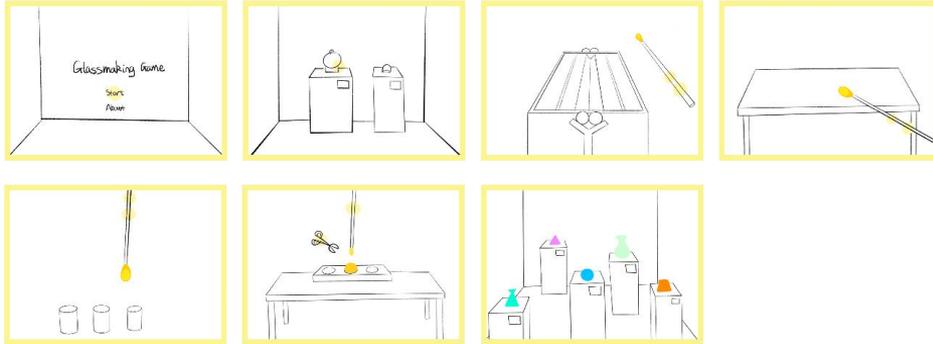
Grab with flexibility



Playtest with high school students



Plan for Future Development



Smooth and complete experience

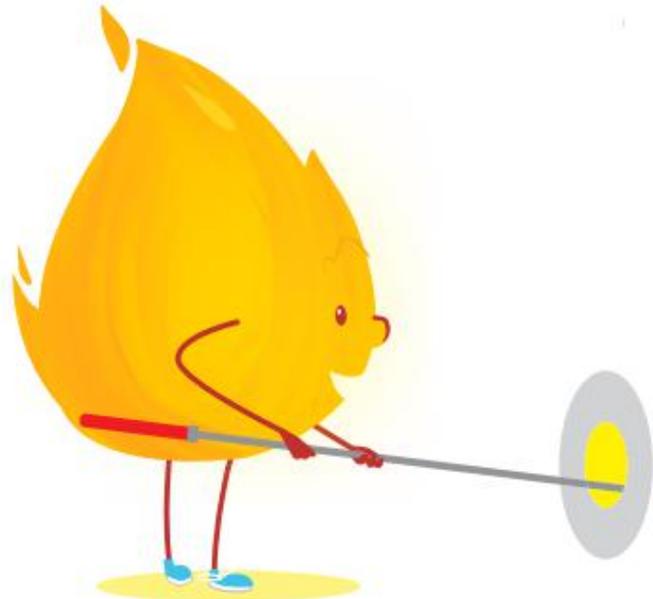
Textured assets
More steps and options for creativity
Be able to fail
UI/UX + Sound



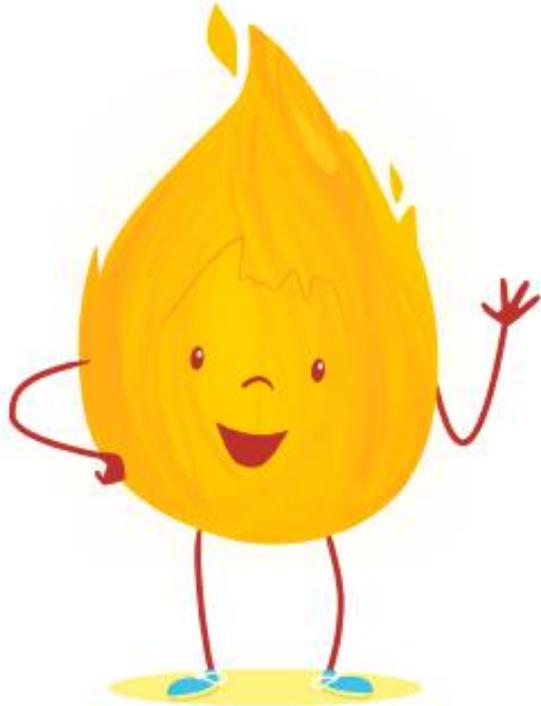
Curation of the virtual gallery

Showcase glass artworks
of artist at PGC

Art - Virtual Assistance Blaze



UI/UX - Blaze as the virtual assistant



Welcome to the Pittsburgh
Glass Center Virtual hot shop!

I'm your assistant and PGC
mascot, Blaze.

Visual & Voice cover

Sound

Captured the real ambience and soundscape at the PGC hot shop



Special Thanks



Jason Forck

Director of Creative Projects - PGC



Shirley Saldamarco

Project instructor



Anthony Palyszeski

K-12 Outreach and Engagement - ETC



Valerie Bundy

PGC Program Director - PGC



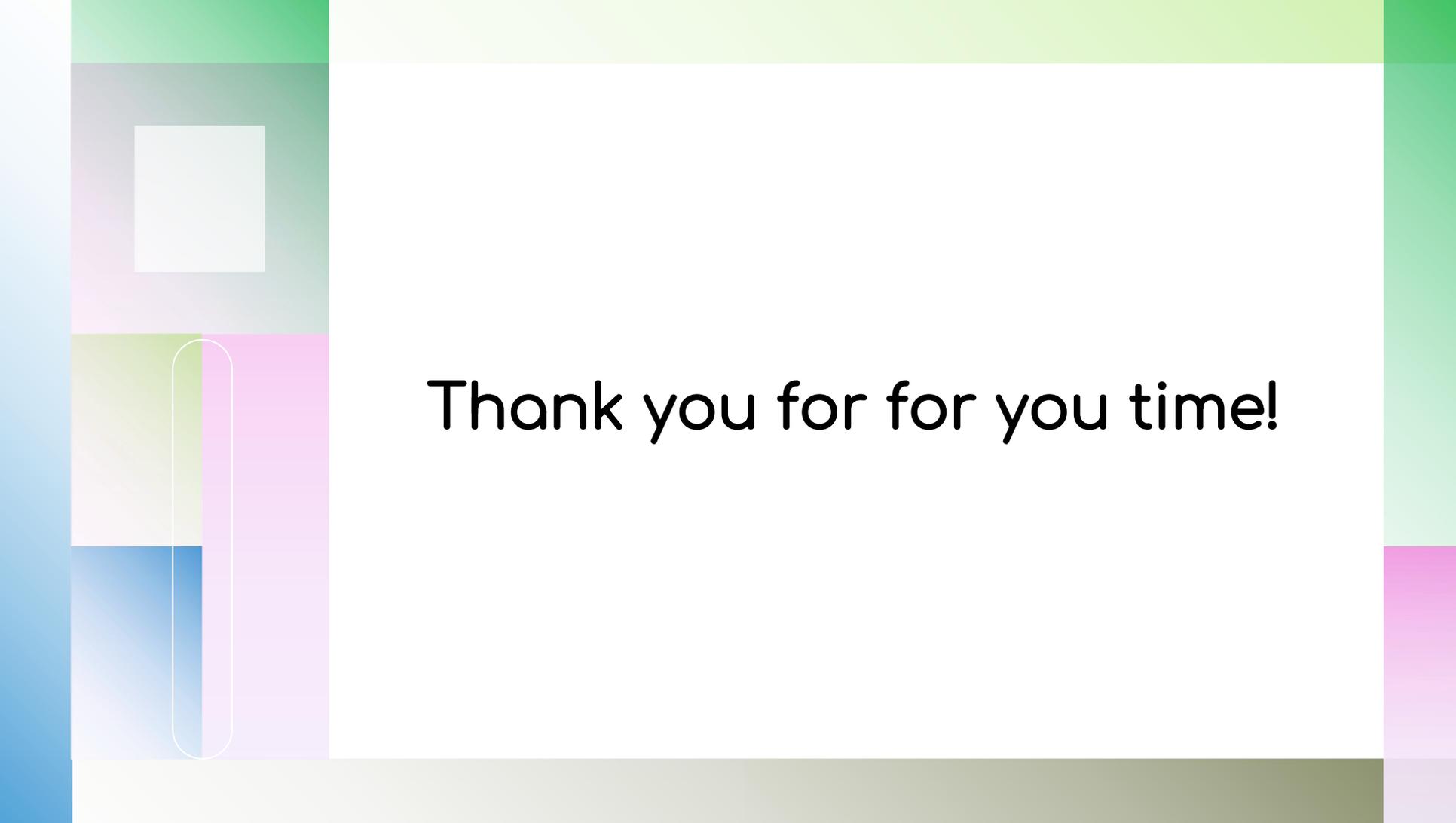
Scott Stevens

Project instructor



John Balash

Director of Educational Engagement - ETC

The background features a white central area surrounded by various colored rectangular blocks. On the left, there is a vertical stack of colors: green, grey, light green, pink, and blue. A white square is positioned in the upper left of the white area. A vertical white rounded rectangle is located on the left side, overlapping the light green and pink blocks. The text 'Thank you for for you time!' is centered in the white area.

Thank you for for you time!

Summary



Glassmaking experience
in hot shop



Meta Quest Pro



An educational and creative
glassmaking VR experience



Citation

Slidesgo.com

Iconfont.cn

<https://www.pittsburghglasscenter.org/>

<https://www.greatlakespsychologygroup.com/wp-content/uploads/2019/07/children-and-adolescents-e1562266902437.jpg>

<https://www.k12blueprint.com/sites/default/files/field/image/reality-bytes.jpg>

<https://design-milk.com/images/2018/10/littala-Corning-Glass-Museum-Weiss-0.jpg>

https://www.pittsburghglasscenter.org/sites/default/files/2019-02/40943249111_e79fca63d1_o.jpg

https://www.pittsburghglasscenter.org/sites/default/files/2019-02/41392986941_ff958d0a1d_o%20%281%29.jpg

<https://www.eschoolnews.com/files/2018/04/vr.jpg>

https://www.thecrucible.org/wp-content/uploads/2020/01/Glass-Blowing_Youth-Glass-Blowing_Pinewood-school-workshop-youth_October-2018_-140.jpg

<https://s3-media0.fl.yelpcdn.com/bphoto/ngF0klWZjoyUbu0PTsmJHg/348s.jpg>

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